



## Safeguarding Land and Water for the future

The Otago Regional Council has launched a campaign of community engagement to inform how Otago's land and water – our most precious environmental assets – will be safeguarded for future generations.

ORC, together with mana whenua partners Kāi Tahu, is developing a new Land and Water Regional Plan, and is seeking involvement from a wide range of people in communities with views and ambitions for Otago's freshwater taonga.

The new Plan for Otago will guide the way land and water are used in the future, in keeping with national direction from the Government and the principle of Te Mana o Te Wai, which prioritises the health and wellbeing of waterways.

Otago Regional Council Chair Andrew Noone said the development of a new Land and Water Regional Plan will position ORC and the community to achieve environmental outcomes that are important for Otago's future.

"We know that our current plan is not fit for purpose, and our changing world means we need good policy to steer our future decision-making. This work is a huge opportunity for everyone in Otago to ensure we are ready for the challenges

of the future, and that our environment is healthy and can support our communities moving forward.

"Otago is renowned internationally for its lakes and waterways, which play such a central role in so many peoples' lives, for many different reasons. It's really important that we get this plan right for our people, as well as for the environment of today and for Otago's future."

### Have your say

ORC Chief Executive Sarah Gardner said it was crucial that as many people as possible have their say on the new plan, whether online or by attending information sessions that will be held in communities around Otago, so the Council can hear what people have to say.

"The Government's goal is to improve water quality throughout Aotearoa within one generation, and this responsibility sits with regional councils and communities. Our new plan must be clear and robust; it

must prioritise the health and wellbeing of waterways; and it must have input from iwi, communities, and science.

"These are your waterways, so it's vital you get involved and have your say about what is important to you for our future and our environment in the new Land and Water Regional Plan.

"From November until early 2023, we're visiting communities around Otago to seek knowledge and views on local waterways, how they are valued, and how we manage them in the future," Mrs Gardner said.

Cr Noone said high community engagement would strengthen the final product.

"We understand the perils of consultation fatigue, and we know we've asked for a lot of input in a range of areas over recent years. The proposed Regional Policy Statement, and now the new Land and Water Regional Plan, are policy documents that are too important to the future of

**Continued on page 2.**



## Chair's Column

**Tēnā koutou, and welcome to the summer issue of Waterlines.**

As the end of another year rapidly approaches, the Otago Regional Council is reflecting on the amount of progress we have made during 2021, and the workload that remains in front of us.

This year, we adopted our Long-term Plan for the next ten years. The Long-term Plan sets an ambitious course for ORC, expanding our capability across a range of core functions, particularly an increased investment in our biosecurity and biodiversity work. This means that, while we build our new policy frameworks, we are also implementing non-regulatory actions such as supporting jobs for nature and environmental work on rabbits, wallabies, wilding pines and waterway restoration for Lake Hayes, Lake Tuakitoto and Tomahawk Lagoon. We're underway with implementing the first year of that plan now, but environmental enhancement takes time, and won't happen overnight.

The Council also adopted a new proposed Otago Regional Policy Statement for notification in June this year, and it has now completed its submission period. This is the first RPS in New Zealand to go to the Freshwater Commission and Council, along with other parties, are seeking a decision from the high court about whether this policy statement can be considered a freshwater planning instrument "in its entirety". Our view is that it can, but if it can't, this will have implications for the next stages in finalising and adopting the new RPS. We'll be able to update you on this process in the new year.

Back in June, Port Otago announced it had purchased the former Warehouse site on MacLaggan Street in Dunedin. Port Otago is 100% owned by ORC, and over the next couple of years we will work with the Port on converting the site into our new head office. This is a tremendous solution to our long search for adequate accommodation, particularly as our workload and staffing ramps up through the Long-term Plan.

Lastly, as the cover story in this issue of Waterlines explains, we have made strides in our preparation towards a new Land and Water Regional Plan, and are now positioned to continue our area-by-area consultation around the whole region over the next eighteen months. I encourage everyone with an interest in the future management of our freshwater and land to stay plugged in for consultation opportunities, and make sure you have your say by sharing the values and knowledge you hold about your local waterways, and what environmental issues you want us to prioritise in your area. Watch your local paper or our website for dates and details about when we will be in your patch.

In this issue, we have a range of stories covering just a small slice of what we have been working on, information about outdoor burning and pest plants, and we're highlighting some of the great environmental work happening out in the community as well.

Have a great summer, stay safe, and we'll see you next year.

Kā mihi nui,  
Andrew Noone  
Chair, Otago Regional Council



### **Continued from cover.**

Otago's environment to be ignored. It's vital that you have your say - the time to start this journey together is now."

### **How did we get here?**

Otago is faced with environmental degradation, the loss of native species, and a loss of cultural and community connections based around waterways, including swimming, fishing and collecting mahika kai.

Following a 2019 review of ORC's freshwater management and allocation functions by Professor Peter Skelton, Minister for the Environment Hon. David Parker set out several recommendations for ORC to develop a fit-for-purpose planning framework for Otago.

These included a review of the Regional Policy Statement, now notified and through its submission period, and a new Land and Water Regional Plan that ORC would develop.

The Council must publicly notify the new plan by the end of 2023, leaving just over two years for remaining conversations with communities across the region to inform new rules and regulations around how water and land is used here.

The new Plan will include rules and limits on water and land use. Some activities on land or around waterways will be allowed, while others will need resource consent. Some rules will apply to the whole region, and others only in certain freshwater management units and rohe.

### **Stay in touch**

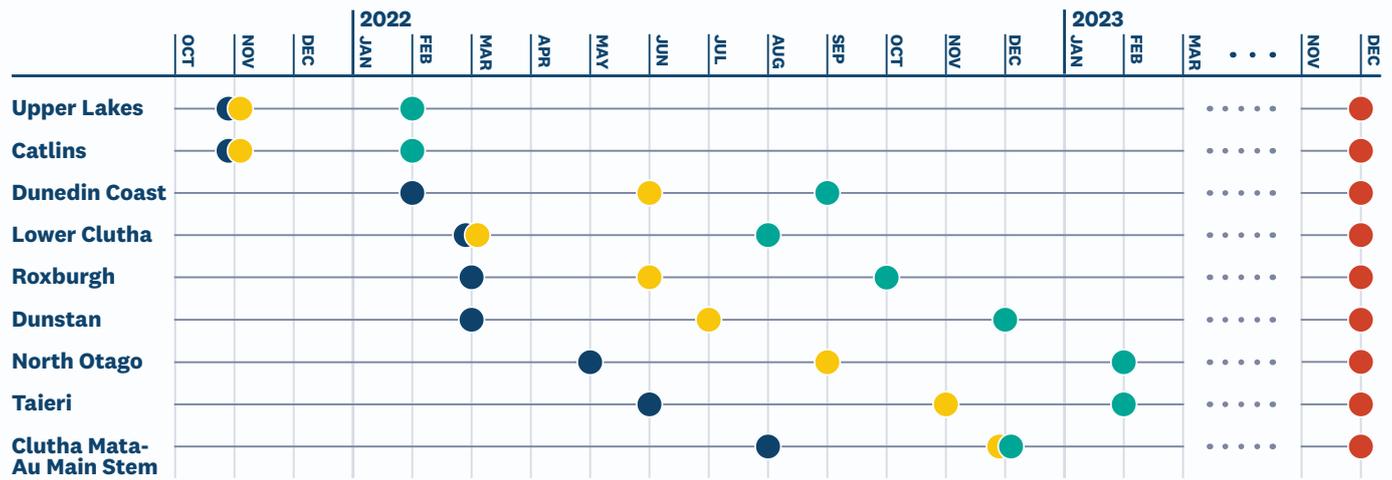
For more information on this plan, freshwater management units and rohe, and how to get involved in your area, visit

**[www.orc.govt.nz/LandWaterRP](http://www.orc.govt.nz/LandWaterRP)**

For more updates, sign up to our monthly e-newsletter at

**[www.orc.govt.nz/On-Stream](http://www.orc.govt.nz/On-Stream)**

## Consultation timeline



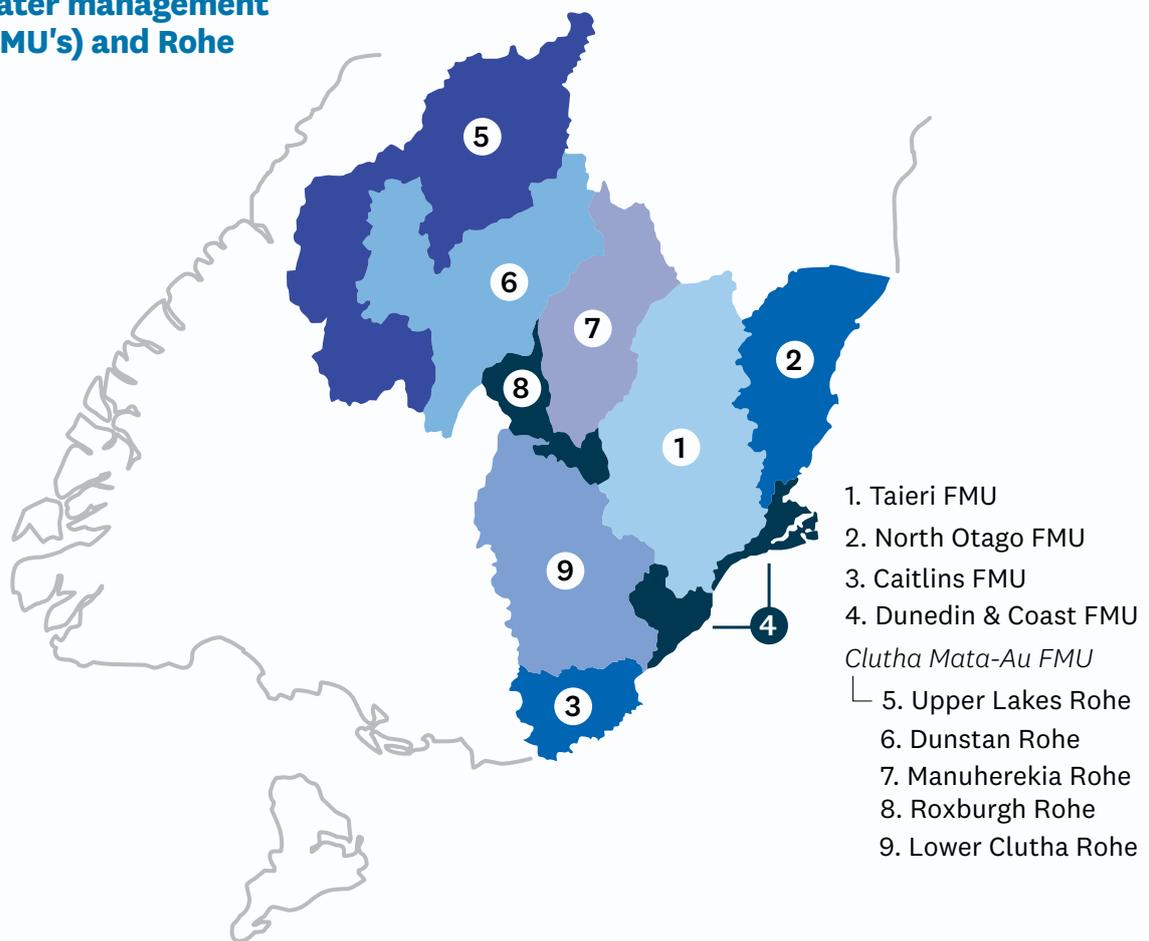
**Consultation 1:** ORC staff and Iwi will present background information on national requirements, freshwater vision for the area, iwi context and values, hydrology, ecology, biodiversity, water quality and land uses. Then they will discuss and confirm community values for waterways, identify issues for water and land and set environmental outcomes in line with government rules and the community freshwater vision drafted in 2020.

**Consultation 2:** ORC staff and Iwi will present and discuss water and land management options for achieving environmental outcomes with the community.

**Consultation 3:** ORC staff and Iwi will present a preferred water and land management option to the community.

**Notification of proposed Land and Water Plan - submission period opens.**

## Freshwater management units (FMU's) and Rohe





## Winter grazing flyovers show good compliance

Flyovers to check compliance with winter grazing rules this winter found nearly all landowners were abiding by current rules, with more work needed to comply with incoming intensive winter grazing regulations.

ORC Compliance Manager Tami Sargeant said the flights in May, July and August showed increasing awareness of existing and incoming rules.

“We saw relatively few risks from the sky that needed following up on the ground, and we had a lot of great engagement with landowners and industry groups throughout winter. Otago farmers generally followed good management practices and mitigated environmental risks well.”

The annual flyovers check for high-risk and potentially non-compliant land use activities using a bird’s eye view. ORC undertook extra flights this year after the government requested increased monitoring.

When potential non-compliance or high-risk activities are identified from the air, staff follow up on the ground with site visits or direct communication to landowners.

The flights provide a good opportunity for education, Ms Sargeant said.

“We’ve observed improved awareness over the winter, which reflects the

productive conversations we’ve had with landowners, and their willingness to look after the environment.”

Ms Sargeant said staff also monitored preparedness of landowners against upcoming and new intensive winter grazing regulations.

---

**“We encourage people to get in touch if they need clarity or advice about current rules or new rules that will come into force soon.”**

---

“One of the focuses for this year’s flights was checking compliance against upcoming rules from the government and Plan Change 8, and helping people to understand and prepare for those rules. The majority of the sites that we followed up on the ground were fully compliant with current rules, but would have breached incoming rules around critical source areas.

“Our message overall is that compliance this year has been good, although it’s

really important that appropriate grazing plans and management practices are implemented for next season. We encourage people to get in touch if they need clarity or advice about current rules or new rules that will come into force soon.”

Some of the incoming rules relate to the amount of paddock being grazed, grazing near critical source areas, and margins when excluding stock from waterways.

Staff have begun planning for the 2022 flyover programme and considering additional focuses for next season’s flights. These may include looking at how stock and vehicles move over high traffic areas, anticipating the impact of weather events that mobilise sediment, and encouraging farmers to review their grazing plans if necessary and plan for sustainable, compliant grazing in the future.

More information about current and incoming rules can be found on ORC’s website at [www.orc.govt.nz/newwaterrules](http://www.orc.govt.nz/newwaterrules).

# ORC team places second in Trans-Tasman competition



ORC's Australasian Management Team, "In Our Element". Left, from rear: Marianna Brook, Soren Olsen, Jasmin Lamorie; right, from rear: Shelby Donald, Rachel Bird, and Team Captain Alexandra King.

## The Otago Regional Council Team, 'In Our Element', won the New Zealand leg of the Australasian Management Challenge in May and competed remotely in the finals during alert level 4.

In Our Element were named runners up in the competition final, which saw the best local government staff teams from Australia and New Zealand competing in a range of exercises designed to simulate the daily challenges of local government.

ORC Chief Executive Sarah Gardner is immensely proud of the team.

"I'm so pleased with this result; it absolutely reflects the work the team has put in. This was only the third time ORC have entered the Australasian Management Challenge, so for us to achieve runner up in the finals really shows what we're capable of as an organisation."

"Our team were up against some highly experienced and well-resourced opposition, and they showed them what a smaller council organisation from Otago is capable of – we're very proud."

In Our Element Team Captain Alexandra King (Team Leader in the council consents team) said second place was an amazing result.

"We are so thrilled to be runners up in the final - it feels like all our hard work

and preparation paid off. The team are absolutely buzzing about the result. We're stoked!"

Ms King said alert level 4 restrictions added a layer of challenge to the competition.

---

**"We hadn't really practiced for that kind of scenario, where everyone was isolated in their own bubble, and it definitely added a new layer of challenge."**

---

"We were initially meant to fly over for the competition before the Trans-Tasman bubble closed, then we were going to compete remotely from a meeting room before alert level 4. In the end we were all competing from home, which made things interesting. It was kind of anti-climactic in a way to just be sitting at home alone, and it felt harder to judge how we were doing.

"We hadn't really practiced for that kind of scenario, where everyone was isolated

in their own bubble, and it definitely added a new layer of challenge. I found it tricky as team leader because I couldn't easily see how each team member was doing, whether they were stressed or needed any help – but the key was great communication."

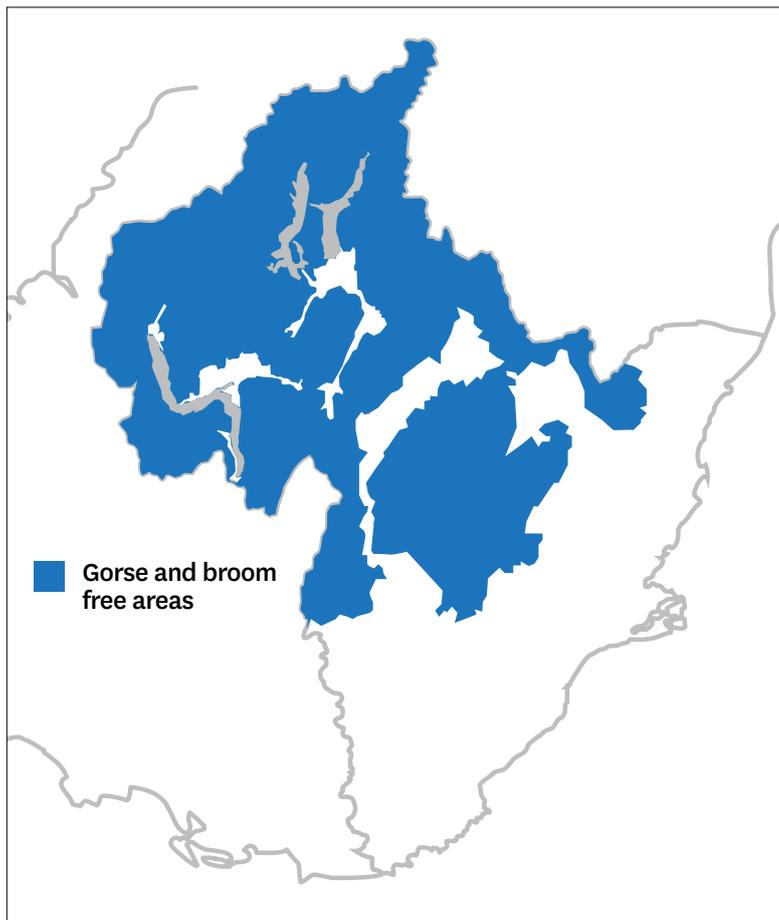
Some of the tasks felt very different over Zoom than they would have in person, Ms King said.

"There was one task where we had to run an in-person community engagement stand about a hypothetical park design, and the judges would pop in and out of the video-call pretending to be interested community members. That was a very odd experience."

Ms King thanked the competition organisers, Local Government Professionals Australia and Taituarā, the New Zealand organising partner.

"The organisers did a really great job running the finals, especially given the disruptions, so we're very grateful to them for enabling us to participate remotely."

# Pests of the Month: Broom and Gorse



Gorse (top) and broom (above) in bloom. Photo source for broom image: Weedbusters.

Many of Otago’s pest plants are escapees that were introduced to New Zealand for gardens and hedgerows, and jumped the fence to spread across our landscapes, causing trouble for our native biodiversity. Two such absconders are gorse and broom, November’s pests of the month.

Our Regional Pest Management Plan labels gorse and broom as pests in specific areas of Otago. These gorse and broom-free areas are mainly Otago’s unique high country and tussock grasslands that have never had a major history of these pest plants, and where an invasion of gorse and broom would greatly affect grazing, biodiversity and the landscape. All up, the gorse and broom-free areas cover over 50% of Otago.

## The rules

Everyone living in the gorse and broom-free areas must eliminate these plants on the land that they occupy. For those in new gorse and broom-free areas, this rule will not be enforced until March 2024. ORC will give advice and information to anyone in the new areas to make sure they are ready for this rule to come into effect.

Even if you live outside of the gorse and broom-free zones, it’s a good idea to eliminate these plants on your property due to their impact on native plants. The good neighbour rules also apply on rural land outside of the gorse and broom-free areas, meaning if your neighbour is eliminating these plants within 10 metres of your boundary, you must do the same on your side of the fence.

## Gorse

Gorse forms thick groups of bushes that prevent stock from grazing, and is generally seen as a threat to farming values and indigenous vegetation.

Gorse seed can be spread by water, birds, gravel extractions, animals and machinery. While gorse is invasive in many areas, it tends to be less vigorous at higher

altitudes. Both gorse and broom seed may lie dormant in the soil for 40-80 years, so monitoring and control will be required for many years.

## Broom

Where too few animals feed to keep this plant at low levels, broom can form thick bushes that block light from most other herbaceous species and destroy grassland.

Broom spreads very easily. Its seedpods explode during summer, sending the seed up to 5m from the parent plant. It may also land on stock, usually sheep, or in water and travel much further, which is why it can spread over long distances.

Find out about control options for these and other pests in Otago in our online Pest Hub: [www.orc.govt.nz/pesthub](http://www.orc.govt.nz/pesthub)

# ORC starts new fund to support environmental projects



Grow Wānaka became the first environmental group to access the fund in October, when they received consent to discharge compost for a worm farm, as part of the Wānaka Community Garden pictured above.

Groups planning projects that benefit the environment in Otago could be eligible to access a new \$50,000 per year fund for resource consent processing fees. The new fund was introduced through ORC's Long-term Plan.

The fund aims to reduce barriers for Otago catchment and environmental groups to advance projects enhancing our environment.

General Manager Regulatory Richard Saunders said the initiative came from feedback on the Long-term Plan 2021-31.

"Several submissions raised the issue of consent processing fees being a barrier for groups wanting to work on projects that enhance Otago's environment. Based on this feedback, Councillors asked staff to develop a policy that would enable ORC to support these kinds of projects by funding consent processing costs."

Under the new policy, a maximum of \$10,000 per project will be available to

cover consent processing fees for projects that meet certain criteria.

"One policy requirement we've introduced is that anyone seeking support for processing fees must have a pre-application meeting with staff in our consents team to discuss the application," Mr Saunders said.

To be eligible, applicants must demonstrate that their project will provide an environmental benefit or service and is not intended for private commercial gain, among other criteria.

The \$50,000 fund is in addition to the ECO Fund support, which Councillors increased through the Long-term Plan to \$290,000 per year.

"The ECO Fund supports implementation of the same kinds of projects, but can't be accessed for resource consent processing costs," Mr Saunders said, "So this will complement ORC's existing support for community projects that benefit the environment."

To learn more about the consent processing support, visit [www.orc.govt.nz/catchment-community-consents](http://www.orc.govt.nz/catchment-community-consents), and to learn more about the ECO Fund, visit [www.orc.govt.nz/ecofund](http://www.orc.govt.nz/ecofund).

# Supporting Otago's future environmental scientists through citizen science projects



Students from The Catlins Area School programming an AR4 acoustic and bat recorder. Right: Otago Girls High School students retrieving nets at Tomahawk Lagoon.

## Young people are involved in a wide range of environmental projects across Otago.

Some projects are primarily focused on ecosystem restoration, through planting and pest management. Others have a more scientific focus, where students work alongside scientists gathering and analysing data.

Three of the many projects happening across the region involve looking at long-tailed bats, assessing water quality and measuring biodiversity, and testing the health of North Otago's soil.

### Catlins' bats on the map

Catrionna Gower has been working with Catlins Area School and Tahakopa School for the last two years, getting out and mapping where long-tailed bats live. The

teachers loved the project, as students got to do real science in their local area. The students learned a lot about the environment on their doorstep and working with others along the way.

Catrionna said it was crucial that students were involved in the project as "the children are the heart of the community."

"Their interests are taken home and involve their family and whanau, their neighbours and their friends," Catrionna said. "They took their research to places on private land, and to areas that were not available to volunteer or most professional scientists."

Through this project, science became extra exciting for these students. Not only did they get to work with bats – which are not your usual Aotearoa fauna – they also became experts in the field, and

the data they gathered has made a real contribution to our knowledge of long-tailed bat distribution in Aotearoa.

Some of the students presented their findings at an international conference for bat experts in Te Anau in 2020, and many want to survey bats this summer.

### Tomahawk Lagoon: Helping locals look after their backyard

Tomahawk locals wanted to learn about the health of Tomahawk Lagoon in Dunedin. Andrew Innes from ECOtago started working with students at Tomahawk Lagoon back in 2014.

The community knew there was a problem with frequent algae blooms, and at the same time, one of the local schools wanted to do science in real environments.



**Weston School students digging up the remains of their undies. Right: A Tahakopa School student installing one of their DIY bat boxes.**

“Without the students there is no project,” Andrew said. The students are creating a body of knowledge about this unique ecosystem and sharing this with the wider community.

Andrew said the highlight of the project is “our reporting back day at the end of the year.”

“They tease out one of the questions posed by the data they have gathered, and share this with the wider community. There’s also some inspirational people and presentations. At this point, we seem to generate more questions than answers, but the patterns are starting to emerge – and they are learning real science!”

### “Soil Your Undies”

Last year, students from North Otago schools started learning about soil health through a project that involves burying undies. The more decomposed the undies were when retrieved after two months, the healthier the soil.

The students on this project learn ways to assess soil health and about the history of land activity in an area. From this, they

hypothesize about how much their undies will degrade at each site. They are also learning about land use practices that enhance soil health.

“The most exciting thing I’m seeing in our students right now is their ability to observe the outdoor school environment and make accurate predictions about how healthy the soil will be in various ‘undies’ sampling sites. I’m looking forward to watching them apply their analytical skills when we visit farms very soon,” Michelle Cox, the educator on the project said.

Along with undies and worm counts, students are now learning about the role of microbes and bacteria in soil.

Bridget McNally from North Otago Sustainable Land Management (NOSLaM), a key partner in the project, said one of the highlights for her is seeing the intergenerational learning that is occurring.

“The students talk about what they are learning at home and the project is resulting in more soil conversations in the local community.”

### Funding and resourcing projects

These projects are funded through a range of sources, including the Participatory Science Platform. The Tomahawk Lagoon work and Soil Your Undies are funded in part through ORC’s ECO Fund.

To find out more about project funding, visit [www.curiousminds.nz](http://www.curiousminds.nz) or [www.orc.govt.nz/eco-fund](http://www.orc.govt.nz/eco-fund)

The community contribution extends well beyond the funding, with many scientists and community members giving time and expertise to the projects. And of course, they would not be successful without the curiosity and enthusiasm of students and the support from teachers.



# Soil surveying in South Otago: Mapping the world under our feet



**Soil mapping gives farmers information to make informed management decisions that optimise their agricultural practices, which is beneficial for everyone in Otago.**

Large parts of New Zealand are yet to be soil-mapped, something that Manaaki Whenua – Landcare Research is working to rectify alongside regional councils, farmers, the Ministry for Primary Industries, and agri-sector groups.

Over the next three years (2021-2024), S-Map – a national soil mapping initiative – is headed to the Catlins, Moa Flats and Tuapeka West areas of Otago.

## **What is the national soil survey?**

Soil surveying has a long history in Otago, starting with supporting central Otago irrigation development in the 1950s. However, there are large areas where the soil resource has not been mapped. The S-map initiative has three major aims: to save the rich legacy of historical soil survey research; to fill key gaps in the soil survey coverage; and to make soil survey information readily available for use in modern land management decisions and tools.

While S-map is led by Manaaki Whenua – Landcare Research, it is a collaborative

effort between farmers, the Ministry for Primary Industry, Regional Councils and agri-sector groups.

S-map soil fact sheets and maps are available online at <https://smap.landcareresearch.co.nz/>

## **How might soil mapping affect you?**

S-map is a digital soil map that displays basic soil property data like depth, stoniness, and clay content, as well as more complex data such as estimated water holding capacity, nitrogen leaching risk, soil carbon, pH and phosphorus retention. Equipped with this information, farmers can make informed management decisions that optimise their agricultural practices, which can increase productivity, reduce inputs (e.g. fertiliser), and provide long-term gains through soil conservation.

Farmers and the agri-service sector use S-map for irrigation and effluent scheduling, farm nutrient budgeting, crop/pasture production management decisions and land use planning.

## **How, when, where?**

Armed with an auger and spade, soil surveyors travel the countryside, identifying soil-landscape relationships to develop a soil map of the area. These relationships can be quite complex, incorporating many interconnecting variables such as rock type, elevation, slope, aspect and annual rainfall to name but a few. The work will involve on-farm sampling, which will occur over the next three years across the Catlins, Moa Flats and Tuapeka West areas.

## **How to get involved**

Manaaki Whenua – Landcare Research will be systematically moving through the study areas over the next 3 years. They are keen to survey soils on your farm. To ensure that happens, please get in contact using the details below. Survey work is free, generally takes about one day and is minimally invasive. Soils are described using a 5cm diameter corer (auger) or small shovel pit, both of which are backfilled.

For more information, contact Manaaki Whenua – Landcare Research, [robertsonb@landcareresearch.co.nz](mailto:robertsonb@landcareresearch.co.nz) or phone 027 202 0303.

# Consider your neighbours when outdoor burning



**ORC's pollution team responded in late May when over 40 complaints were received about smoke from outdoor burning blanketing Hāwea Flat.**

**During open fire season, ORC receives a high number of complaints about smoke from outdoor burning, which can cause a nuisance in the community and have health impacts if it's not done carefully.**

Any burn-off that causes offensive and objectionable smoke beyond your property boundary is prohibited under Otago Air Plan rules.

“We understand there’s a need for some rural properties to undertake a controlled burn-off. However, please remember your community breathes what you burn,” said Compliance Manager Tami Sargeant.

“Ensure that what you’re burning, and the size of your burn-off does not cause smoke that becomes a nuisance to your neighbours and community.”

Ms Sargeant said a high proportion of complaints about outdoor burning have come from the Queenstown Lakes District, which includes Wānaka and Lake Hāwea.

“We have no tolerance for outdoor burning that breaches the rules. We’re putting the call out for anyone who wishes to conduct an outdoor burn off to apply some good old-fashioned consideration for others in their community before lighting fires.”

The Air Plan rules for outdoor burning depend on where you live in Otago. ORC has produced a quick guide to rules

around outdoor burning in Otago, aimed to help anyone navigate which rules apply in which area of Otago.

You can find the guide over the page, or on our website [www.orc.govt.nz/managing-our-environment/air/outdoor-burning](http://www.orc.govt.nz/managing-our-environment/air/outdoor-burning)



## Now's the time to get your firewood sorted

Buy and stack your firewood for next winter before Christmas, so that it has time to dry. Dry wood means more heat from your fire, and less smoke in the air.

# Does my outdoor burning comply?

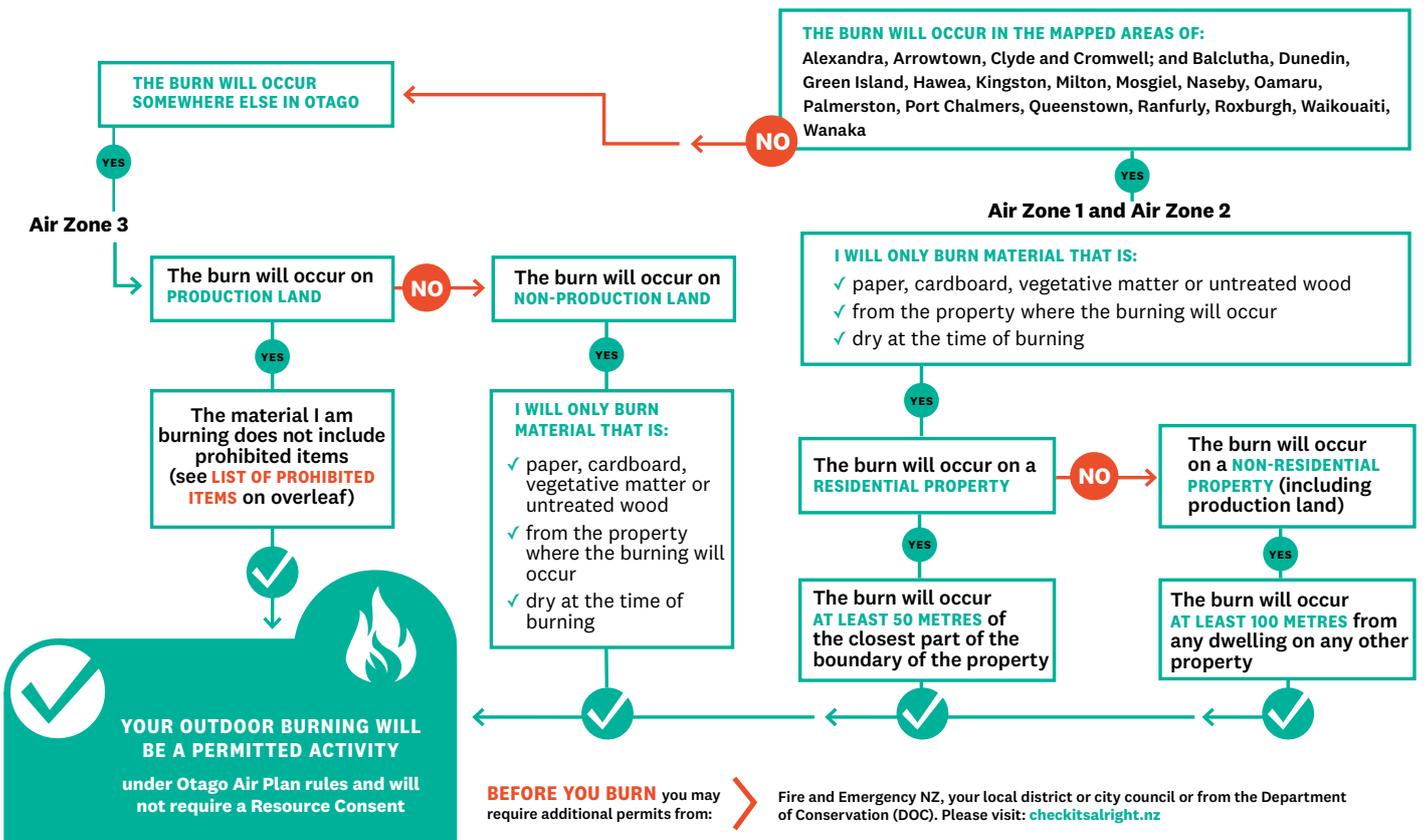
A Fire and Emergency NZ permit does not necessarily mean your burning is permitted under Otago Air Plan rules



**THE SMOKE, ODOUR OR ASH FROM MY BURNING:**

- ✓ will be contained within the boundary of my property
- ✓ will not be offensive to my neighbours

A campfire or fire for the cooking of food is a permitted activity under Air Plan rules so long as your material is dry, and does not cause offence beyond your property boundary. See the full Air Plan for more details.



✓ READ THE AIR PLAN IN FULL ALONG WITH MAPS OF AIR ZONE BOUNDARIES AT [www.orc.govt.nz/air-plan](http://www.orc.govt.nz/air-plan)



# Check the water quality before you swim

Every week between December and March our team test the water quality at popular swimming spots throughout Otago for bacteria risks that can make people sick. This bacteria can come from rain run off (all the rainwater filling up gutters and into your local waterway) or from animals, like duck poop.

The latest water quality results are published on LAWA's Can I Swim Here page by Wednesday afternoon so you can decide where's good, and where's not to swim.

See what the water quality is like where you swim by visiting [www.lawa.org.nz/swim](http://www.lawa.org.nz/swim)



Like Otago Regional Council on Facebook for regular updates and sign up to our monthly e-newsletter, On-Stream, by visiting [www.orc.govt.nz/on-stream](http://www.orc.govt.nz/on-stream)



70 Stafford St Private Bag 1954 Dunedin 9054  
Phone 03 474 0827 Freephone 0800 474 082 Pollution Hotline 0800 800 033  
[www.orc.govt.nz](http://www.orc.govt.nz)  
Enquiries: [info@orc.govt.nz](mailto:info@orc.govt.nz)