

Rural Otago's quarterly update

# Waterlines



Winter 2018



A branch of the Manuherikia River located near Alexandra

## Minimum flow plan change

**We have a new approach for delivering a number of water quantity plan changes.**

So far we've been consulting with the community on these plan changes on an individual catchment basis, and the new approach sees us bringing this work together to notify a single plan change.

The plan change will set minimum flows for particular catchments and assist in evaluating the replacement of deemed water permits within the wider Clutha/Mata-au catchment.

This approach means we'll have efficiency in bringing the plan changes together and providing greater certainty to the community and water users when they come to replace their deemed water permits,

because minimum flows will be in the plan rather than assessed at the time an application is lodged.

The identified catchments are the Arrow, Upper Cardrona and Manuherikia. Minor technical changes on how residual flows are set and measured within the region will also form part of this plan change.

While early consultation on the individual plan changes involved setting water allocation limits, this work will now be scoped as part of a broader work programme to give effect to the National

Policy Statement for Freshwater Management.

Work on other water quantity plan changes within the region will also continue in the background.

Key stakeholder and community information sessions were held in Dunedin and Cromwell in early to mid-June. At these sessions minimum flows for the Arrow, Upper Cardrona and Manuherikia catchments were presented.

Information on the plan change will be regularly updated on our new online platform *YourSay* which is on our website.





# Do you have a forestry block? New rules will affect you.

**If you have a forestry block larger than one hectare that was planted specifically for commercial activities and harvest, then The National Environmental Standards for Plantation Forestry (NES-PF) apply to you.**

The NES-PF came into effect on 1 May 2018. These are a single set of regulations under the Resource Management Act that apply throughout New Zealand. The NES-PF sets out rules for eight plantation forestry activities:

- Afforestation
- Pruning and thinning to waste
- Earthworks
- River crossings
- Forest quarrying
- Harvesting
- Mechanical land preparation
- Replanting

Most forestry activities are permitted by the NES-PF so long as foresters meet specific conditions to prevent significant adverse environmental effects. If foresters can't meet these conditions they need to apply for a resource consent.

Prior to 1 May 2018, forestry activities in Otago were managed under the Water Plan.

We have been working closely with MPI to clarify when stricter rules from the Water Plan will apply in Otago, and an agreed proposal will go to Council on 27 June for approval. We'll keep you updated on what the rules in Otago mean for you if you have a forestry block on your farm.

We're doing this because stricter Water Plan rules are allowed under the NES-PF if they are better for aquatic ecosystems. We want to make sure Otago's native, and in some cases endangered, fish species are protected from sedimentation and disturbance of their habitats.

We hope to have a final decision on the Water Plan rules that will apply to forestry soon, however these are only a small part of the overall NES-PF and in the meantime MPI have some useful information on their website at:

**[www.mpi.govt.nz/growing-and-harvesting/forestry/national-environmental-standards-for-plantation-forestry/](http://www.mpi.govt.nz/growing-and-harvesting/forestry/national-environmental-standards-for-plantation-forestry/)**

Please keep an eye out on our website for updates, because soon we'll have templates to make it easy for you to let us know if you plan to harvest forestry on your land.

# What will farming look like in the future?

**Will farmers need to change how they farm to be future-proof? Will they need to change what they farm to meet changing market demands? What impact will synthetic foods have on farming in NZ?**



A variety of speakers recently discussed the future of farm production in NZ by sharing their thoughts and experience around conventional farming systems, alternative farming systems, and synthetic foods.

An April workshop in Gore was set up to look at the changing face of agriculture and discuss how to address issues in a way that will ensure a more sustainable environmental, social and economic future for farming in New Zealand.

## **Here are some take-home comments that were made by the speakers:**

- Perhaps we've taken it for granted that we can keep putting pressure on the environment.
- Farming is at the stage where an increase in productivity is no longer matched with an equal increase in profit.
- Water quality allows us to take a snapshot of what's happening in the environment, but the health of the soil has also been affected and it's just as important to look after this.
- Test new methods and approaches in one area of the farm to make sure it works for you before rolling it out to the rest of the farm.
- Profit is not the only measurement of a successful farm.
- Don't worry if some of the new methods you trial aren't successful – keep trying and remember that you learn from failures.

The challenge for meat and dairy producers faced with synthetic foods quietened the audience, with Emeritus Professor Frank Griffin noting the cost of the synthetic burger has shrunk to \$18 and will only get cheaper.

He encouraged meat producers not to enter into a commodity race to the bottom but to instead market their product as premium.

He mentioned that tourists spend 90 percent of their time in New Zealand looking around the back yards of farms and we need them to want to pay top dollar for a New Zealand product when they get back to their home country as a way to recall their great New Zealand experience.

Regenerative farming was a hot topic, with a number of farmers saying they are pleased they asked themselves why they weren't getting ongoing results from applying fertiliser, and looked for an alternative.

Using biological fertilisers is working well for one farmer, who now sees a higher worm count and greater depth of roots. While it initially cost more than conventional fertilisers, the goal is to get the soil working for them. Success has been measured in visual observations, most recently during the drought this past summer where the farm stayed green for longer, and bounced back faster, which convinced them they are on the right track.

'Where to now?' was a recurring theme from most of the speakers, with a number mentioning that you don't have to solve all the problems at once, but you do need to start making changes.

This approach also makes it easier to move away from traditional farming methods that have been handed down through the generations.

## **Next steps?**

This meeting was just the start, and a way to find out where things need to head next. A full-day event will be held in Dunedin later in the year to talk about potential solutions.

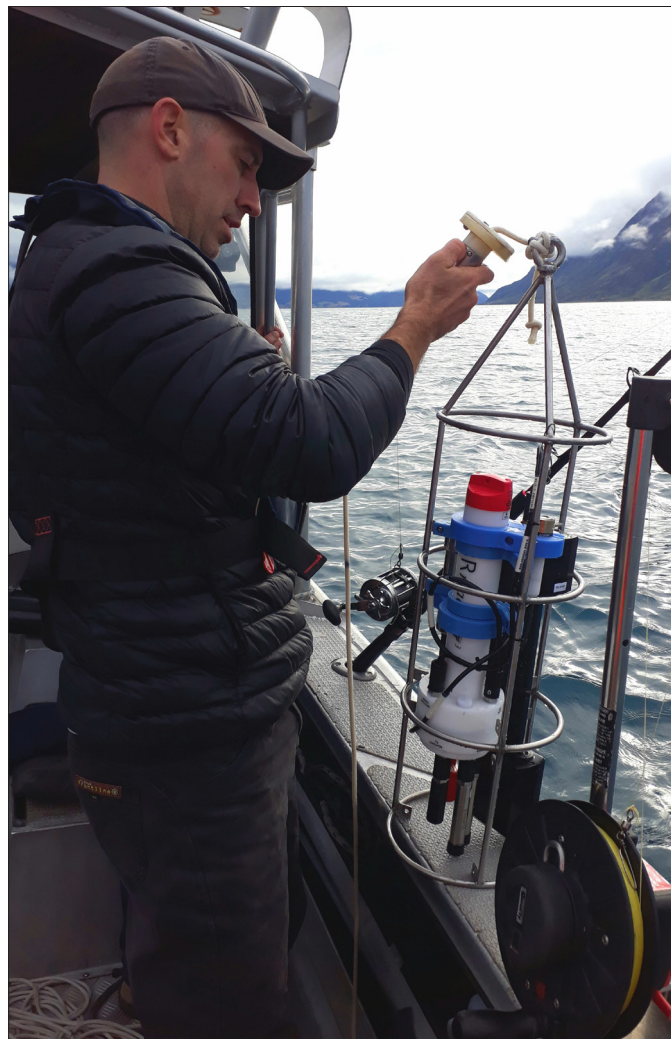
We'll keep you posted.

*The workshop was a collaborative partnership with Ag@Otago and NZ Landcare Trust.*





Environmental monitoring officer Nathan Manning tests the new sonde that will be used to record data from the depths of the Queenstown and Central Otago lakes



It also had its first proper testing at Lake Hawea

## Delving deeper into our lakes

**ORC has invested in new technology that means we can now find out what's happening in the depths of Otago's lakes.**

We regularly monitor the health of our iconic lakes (Wanaka, Wakatipu, Hawea and Hayes), but our current machine only reaches 200 metres deep.

A new sonde we've recently purchased will allow us to capture data from deeper than 200 metres and will reach the deepest part of the lakes, which is around 380 metres.

We will now be able to find out what's happening far below the surface.

While the top of the lake is most active in terms of nutrients and aquatic life, the new sonde will allow us to be able to monitor the changes in water quality occurring at depth, primarily by looking at the rate of consumption of oxygen from the bottom waters of the lake along with phytoplankton biomass, water

clarity, and nutrient (particularly nitrate) accumulation in the lakes.

The \$60,000 sonde was tested in a rubbish bin at ORC recently, simply because it was the only container deep enough to cover the sonde with water.

We're excited about seeing the results when it's being used in a location more fitting for such an impressive piece of equipment.



Tomahawk Lagoon



Lake Tuakitoto

# Restoration of Tomahawk Lagoon and Lake Tuakitoto

**ORC is working with the Tomahawk Lagoon and Lake Tuakitoto communities to develop long-term visions for the lagoon and the lake.**

A joint vision means ORC, the community and other stakeholders will sing from the same song sheet and have agreed goals to work towards.

## **What's the process?**

Two of three workshops have been held for both Tomahawk Lagoon and Lake Tuakitoto.

### **Workshop 1**

These sessions were used to work with the community to understand the values people hold for these areas, and the goals they want for the future of Tomahawk Lagoon and Lake Tuakitoto.

### **Workshop 2**

The second workshops focused on the goals prioritised by the community in the first workshop. Community leaders and relevant specialists helped to guide the community in developing feasible actions that would achieve each goal.

### **Workshop 3**

Information from the first two workshops will be used to build a community vision for Tomahawk Lagoon and Lake Tuakitoto, which will be presented at the third workshop.

## **Who will make it happen?**

While some of the projects identified will be addressed by ORC, collaboration from the community and other stakeholders will be needed as well. Actions that have been highlighted as ORC responsibility will be incorporated into our planning processes,

including the Annual Plan and the Long Term Plan.

The more support ORC has from the community on these projects the more likely action will be achieved on the ground, so make sure you have your say!

## **How can you get involved?**

The success of restoring Tomahawk Lagoon and Lake Tuakitoto requires community input, and we encourage you to take part in our final workshops.

***If you would like to see the feedback and goals identified in the first two workshops, or want to be kept up to date about dates for the final workshops, please email:***

**Nicole Foote** for Tomahawk Lagoon at [nicole.foote@orc.govt.nz](mailto:nicole.foote@orc.govt.nz) or **Chantal Whitby** for Lake Tuakitoto at [chantal.whitby@orc.govt.nz](mailto:chantal.whitby@orc.govt.nz).



# Virtual fencing trialled



Lake Mahinerangi and the surrounding farmland

**Pāmu is investigating alternative solutions for stock exclusion by trialling virtual fencing on the 30 km unfenced boundary that separates Lake Mahinerangi from its largest property, Waipori Station.**

In addition to the unfenced boundary with Lake Mahinerangi, a substantial portion of Loch Luella (a regionally significant wetland on the farm) is also unfenced. Both of these features will be retired from cattle grazing to comply with the National Policy Statement for Freshwater Management.

Pāmu has investigated alternative options to exclude stock from the lake and the wetland, including:

- Fencing for sheep exclusion
- Fencing for cattle exclusion (two-wire post or Waratah)
- Virtual fencing
- Managing areas with seasonal grazing to compensate for the fluctuating lake level

Concerns about permanent fencing included the potential for weed infestation from the removal of grazing pressure, and the ongoing control of resulting pest plants. Providing alternative stock water sources will be an additional expense for the project, and this will

be addressed with a new reticulated water scheme.

## What is virtual fencing?

Virtual fencing essentially involves the animals targeted for exclusion wearing a collar with a GPS locator. This allows the farmer to create a virtual fence line on a computer. The collar uses sound to warn the animal when it is approaching the virtual fence line, and if the animal crosses this line the collar gives a small pulse (less than an electric fence). Later this year, Waipori Station will become the first farm in New Zealand to use virtual fencing technology, in collaboration with Pāmu and AgResearch.

This will initially start as a three-month trial, using 100 collars (plus a base station and software). The collars are still in the development phase so the retail value is not yet finalised, but Pāmu see a substantial benefit over conventional fencing.

A big advantage is being able to move the fences at no cost, e.g. if the lake level rises or falls or to allocate feed across the paddock.

Pāmu does not envisage using less labour on the farm due to using virtual fences, however they might not need as many post rammers!

## What does success for this project look like?

Keeping cattle out of the lake without having to put up conventional fences is the ultimate goal, but being able to control where most of the animals are most of the time will be a success.

This trial will be one of the first larger scale trials where GPS collars will be used for an entire herd as opposed to a few animals on a research farm.

This will allow the researchers to discover how individual animals behave within the herd, how many collars fall off or break, and technology issues like connectivity and farmer usability.

## Other potential benefits are:

- The social licence to farm from an environmental point of view
- Compounding benefits when the cattle are wearing the collars like feed allocation, creep feeding

of calves, and identification of individual animals with health problems.

- On larger properties it has the added advantage of being able to locate the stock

Gordon Williams, Pāmu's Environmental Manager, has initiated a project group to focus on solutions for stock exclusion and the management of subsequent pest plant issues.

This group has representation from NZ Landcare Trust, commercial interests, affected parties, and neighbouring landowners. This is so they can all learn together and find a balance in respective views on environmental management.

The end goal is not to just meet stock exclusion requirements, but also to enhance biodiversity through native plantings, positively impact water quality and collaborate with interested parties.

#### Project Statistics

- 30 kms of lake-edge and a further 30 kms of Loch Luella wetland
- Cattle exclusion is required. However, full stock exclusion by fencing will be considered where this has a better environmental outcome
- Timeframes of project guided by National Policy Statement for Freshwater Management (dictates deer & cattle exclusion by 2025 on flat land & 2030 on rolling land)

#### Waipori Station facts

- 12,554 ha of which 10,000 ha is effective – the balance is in forestry & covenants
- Employs 10 full-time staff including farm manager Dave Vaughan
- The farm winters 56,000 stock units, comprising 37,000 sheep (including 26,000 breeding ewes) and 3,500 cattle (including 2,200 breeding cows)

**Pāmu is the brand name for Landcorp, a Stated Owned Enterprise, and an innovative farmer and food business. It is also the name given to the products created by the company.**



## What's next for Waterlines?

### Did you know that at the moment Waterlines only goes to rural letterboxes?

We have a lot of ratepayers in urban areas too, and we want to revamp our newsletter so it caters for all the Otago community, while retaining what you value about it.

In our next issue of Waterlines we'll include a survey so you can give us your thoughts on what you like about Waterlines, what you don't like, and what else you'd like to see.

We're looking forward to giving Waterlines a facelift so please take the time to complete the survey in the next issue and help us shape our newsletter so it's relevant for all of our Otago community.



## Helping lifestylers understand rabbit management

Some people think rabbits are cute and fluffy, and can't understand why they are pests. This is why ORC has launched some information to help people understand that not only are they a pest, but it's also the land owner's responsibility to manage them.

We're aware most farmers know what to do and have taken action for many years, but we need everyone to take action if we want rabbit numbers to be under control.

We've created an animated video you may have seen on our Facebook page or website, and we also have brochures that go into more detail about the different methods for rabbit management.

There's also plenty of information on the ORC website. We're going to pilot a workshop on rabbit management on the Otago Peninsula, and if the community finds it useful we'll organise more workshops in other areas of Otago.

If you want copies of the brochure to give out in your area, please email us the quantity and your postal address to [water@orc.govt.nz](mailto:water@orc.govt.nz)



# Introducing...



Harbourmaster Steve Rushbrook in his previous role at Port of London

**Otago Regional Council's new Harbourmaster, Steve Rushbrook, joined ORC in October 2017, after working at the Port of London for 11 years. During this time he oversaw harbour activity for the Queen's Jubilee and the London Olympics.**

## ***What are your initial impressions about Otago?***

It's an amazing area; the scenery is stunning with numerous environmentally-diverse locations to explore. Otago has everything to offer a family settling into a new country. As Harbourmaster, Otago is a vast arena and I have a remit to pick up a large scope of work throughout the region.

## ***What has been your main priority over the first six months working in the role?***

I've been focused on delivering maritime safety management systems and bylaws, as a framework to work within to help achieve further goals.

My other focus has been on settling in and getting around the local maritime community. Then from a wider perspective, getting to know our regional council neighbours, Maritime New Zealand and other national agencies.

## ***How do your responsibilities differ from your previous role at Port of London?***

One of the biggest changes is that I've gone from being the deputy Harbourmaster in London to The Harbourmaster in Otago.

In London I was fortunate enough to have a large team of Harbourmasters behind me who each had specialist areas, so in a smaller operation like Otago it's about adapting and taking on those specialist roles.

In London the harbour activity involved 500 ships a month with a team of ninety pilots. In Otago, activity is around 500 ships a year with a team of nine pilots.

Because there is less operational activity, it allows me to concentrate on my other Harbourmaster duties such as developing safety management systems and engaging with the public more regularly.

Overall the challenge remains the same, with powered versus non-powered usage of the water and how we enable everyone to use the water safely.

## ***Does anything stand out as an opportunity for improvement in Otago?***

There's an opportunity for our Harbourmaster office to do better at educating and advising people to use waterways safely, as well as making safety information more easily available to recreational users. I'm also looking to improve the online presence of the Harbourmaster.

## ***What can people expect coming from the Harbourmaster's office over the next 12 months?***

A new set of bylaws. The navigational bylaws were last looked at in 2003, so they need updating. There is upcoming public consultation on the bylaws soon and I encourage everyone to have their say.





Port Chalmers, Dunedin

***What are your thoughts on water safety in Otago? Is it a safe place for boating?***

It's a safe place as long as water users are able to interact safely and use the waterways with consideration of other people's requirements. Over the past 10 years or so there have been a number of fatalities around the region for varying reasons. In order to reduce that risk and improve water safety, we need to educate people better on using the water safely.

***What is a safety standard that is frequently overlooked or forgotten by water users?***

Easy. Lifejackets. Wear them! It is really simple, wearing one will save your life should you have an incident. When boating, it's also important to have two forms of communication.

Do your homework, understand where you are, where you're going, let someone know you're going, carry a VHF radio and take a mobile phone in a waterproof case. If one option doesn't work, the other one might save your life.

***Otago Harbour has seen an ever-increasing number of cruise ships. What are some of the key concerns for the Harbourmaster to deal with this increased demand?***

The number of cruise ships entering the harbour has been increasing year-on-year. We had 89 cruise

ships visit last year and we have 119 provisionally booked for next year.

My focus is purely on navigational safety and having an overview of navigational risk assessments.

***With the increased demand is it worthwhile considering making Otago Harbour a two-way channel to cater to large vessels?***

No, there is no advantage in doing this. It may speed up the process of bringing ships in and out, but it would make the harbour much more unsafe. It would lead to close-quarters scenarios and we don't have the width of channel for two vessels to navigate in.

Otago Harbour is one of the most navigationally challenging harbours in New Zealand. It's a very narrow channel that twists and turns in a tidal arena with many navigational challenges.

***Tell us about the event management aspect of your role in Port of London.***

One of my main roles in central London was to manage events. By way of events I mean anything weird, wonderful and wacky, any filming projects and anything out of the norm that had a public relations aspect to it that may impact on safe navigation of the waterway.

So I've seen some interesting sights, from 40 metre dragon kites flying through Tower Bridge to amphibious ice-cream vans.

I had a command and control role to play in the Queen's Diamond Jubilee. It was an amazing day but we had a two-year lead-in for our team to get to that day. I pretty much left home for five days to deliver that event with the team. It was non-stop but an amazing event to be involved with.

We were also involved with some filming for the opening ceremony for the London Olympics. We did two weekends of filming with Danny Boyle and his team in order for them to get the shots of helicopters flying through Tower Bridge, as part of a James Bond stunt for the Olympics. We essentially had to shut the river down for them.

***Complete this sentence.... A ship came into the harbour carrying a cargo load of...?***

Super Rugby teams. Because I'm all over the Super Rugby at the moment. I'm a secret rugby nut. I used to play and I love the fact that the stadium is really accessible here. Cost-wise and location-wise.

I'll be seeing the All Blacks play France this month and I'm certainly a Highlanders fan and have been spotted jumping up and down in the stadium in support of them.

## Good Water Project Update

*In the last issue of Waterlines we outlined the Good Water Project, which aims to help people understand their risk when it comes to impacting on water quality and breaching rules in the Water Plan.*

It also aims to help ORC understand what actions our rural and lifestyle block community is taking to make sure they are minimising negative effects on water quality.

### What's happening now?

#### A survey

A phone and online survey is now complete to find out what you're doing to improve water quality and make sure you're ready when the contaminant limits in the Water Plan come into effect in 2020. The survey was done on our behalf by Versus Research, and if you took part we'd like to thank you for having your say.

We'll let you know the results when we get the final report from Versus Research.

#### A desktop assessment

We're assessing properties less than ten hectares in size by desktop (i.e. from our office). The purpose of this is to determine their risk of having a negative impact on water quality. We'll write to these properties with a copy of the assessment and some information about the project.

#### On-site assessments

We've started a pilot project of on-site assessments in the Shag River catchment. The pilot allows us to make tweaks if they are needed before we roll it out to the rest of Otago. The on-site assessments will be face-to-face to help you fully understand how the Water Plan rules relate to you. We'll also ask you what information and support you need from ORC. You can keep up to date with the Good Water Project by emailing [water@orc.govt.nz](mailto:water@orc.govt.nz) to subscribe to our monthly e-newsletter, On-Stream.



### Good Management Practices

**PATHWAY FOR THE POMAHAKA CATCHMENT PROJECT**

Good management practices are:

- Practices which help manage farm resources while minimising environmental risk.

There are many positive outcomes from adopting good management practices on farm, for example:

- Water quality will be maintained and/or improved.
- Water quality provisions in the Otago Water Plan will be easier to comply with.







Get your Good Management Practices poster at [www.landcare.org.nz/regional-focus/gore-office/pomahaka-project](http://www.landcare.org.nz/regional-focus/gore-office/pomahaka-project)

## Winter good practice management

**Wet, wintry weather means there's a higher risk of sediment and nutrients entering waterways, and soil being damaged through compaction.**

Follow these good management practice tips from Pathway for the Pomahaka Catchment Project and NZ Landcare Trust to minimise environmental risk.

### Paddock selection for wintering

- Identify winter grazing paddocks early
- Ideally, select paddocks further away from waterways
- Look for areas at lower risk of pugging and compaction
- Identify critical source areas and leave these in grass
- Select paddocks where you can manage sediment loss

### Winter grazing

- Work out an access and grazing strategy before putting up fences, thinking about the location of stock water sources and using temporary water troughs if necessary
- Graze paddocks from the top to the bottom
- Keep the soil on the paddock

- Retain a buffer zone along any riparian areas
- Graze critical source areas last and only if conditions allow

### Critical source areas

Critical source areas are low-lying parts of farms such as gullies and swales, where runoff accumulates.

Runoff from critical source areas can carry sediment and nutrients to waterways

Where possible, keep critical source areas uncultivated and ungrazed

By managing these areas you can greatly reduce the loss of sediment and nutrients from farms.

You can download a copy of the Pomahaka Catchment Project and NZ Landcare Trust good management poster from [www.landcare.org.nz](http://www.landcare.org.nz)





Liaison specialists Nicole Foote and Bruce Monaghan at the IrrigationNZ conference

## Irrigation NZ Conference and Expo

ORC was an exhibitor at the recent Irrigation NZ Conference in Alexandra. It was fabulous to catch-up with a wide range of people at our stall.

We had many engaging and lengthy conversations covering topics including water takes, replacing deemed permits, retaining legal access to water races and pest control. It was great to receive some live feedback on our new online platform *YourSay* which we will be using for our upcoming minimum flow plan changes:

[yoursay.orc.govt.nz](http://yoursay.orc.govt.nz)

In addition to our stall, Resource Manager Marian Weaver presented on the role of user groups and collectives for successful water management.

A number of presentations at the conference were filmed and can be viewed at Irrigation NZ's website:

[www.irrigationnz.co.nz/conference-2018](http://www.irrigationnz.co.nz/conference-2018)



## Trees for skis

**A planting day on a Taieri Plains dairy farm not only resulted in nearly 250 plants going into the ground, but also helped school children who were fundraising for a ski trip.**

Guus and Veronie Terwoorst have a keen interest in enhancing the native plants they have on their farm, and invited students from St Mary's School in Milton to help them with the planting in exchange for funds for their ski adventure planned for September.

The students had a great understanding of the plants, and ORC liaison specialist Chantal Whitby talked with them about the benefits of native plants and the varying roles and uses of each species.

Room 4's teacher, Ellen Devany, commented that it had been a good opportunity and great learning experience for the students. The planting site was in a gully at the top of the farm, which has a small stream running through the middle.

It is intended that the plants will help to mitigate any sediment and nutrients from travelling further down the farm, as well as improve biodiversity and habitat for native land and water animals.

## Community funding coming soon!

**We're going to re-launch our community funding scheme soon and can't wait to tell you all about it.**

The fund will be for community-driven projects that will protect and enhance Otago's environment.

*Keep an eye on our website and Facebook page for more information.*

# Events calendar

You'll find ORC staff at the following events...

## July

- 31** Deadline for getting water take data to ORC.

Please email [watermetering@orc.govt.nz](mailto:watermetering@orc.govt.nz)

## To be confirmed

Third workshop for Tomahawk Lagoon restoration

Third workshop for Lake Tuakitoto restoration

ORC's ten-year (long-term) plan to be adopted

# What's up at ORC?

## Enviroschools

*The Enviroschools programme empowers children to create more sustainable, healthy, caring environments and places for all to enjoy.*

### Covering the entire region!

Enviroschools now covers all of Otago, thanks to funding from Waitaki District Council to fund a facilitator in North Otago. This is exciting news, and we now have 78 schools involved in the Enviroschools programme in Otago.

### A vision map

Musselburgh Primary School in Dunedin completed Stage One of their vision map late last year and it takes up most of one wall in the school hall. The vision map sets out the sustainable future a school is working toward. The Year 5 students created the map out of materials that were recycled (cereal & Fonterra milk boxes), found (popsicle sticks, scrap paper) or natural (sand, rocks, wood chips, flax). Funding for Stage Two has been approved by the Board of Trustees and will include a circuit board, conductive paint and copper elements to enable sound recordings to play when touched.

### Empowerment Fund



Last year seven schools were given Enviroschools Empowerment Grants. Poolburn School in Central Otago used their grant to provide new entrants with Nude Food lunchboxes. The students have been working hard to find ways to reduce rubbish at school and food wrappers in lunch boxes was found to be one of the biggest sources of rubbish. The new entrants receive an information pack put together by the students to help them, and their parents, make waste-free lunches.

## Water take data needed by 31 July

A reminder to please get water take data to us by 31 July for those where telemetry isn't sent to ORC daily. The data should cover the year from 1 July 2017 – 30 June 2018. If no abstraction has occurred, then the records you supply should reflect this, i.e. a downloaded data logger file with zeros for each day.

Please email your data to: [watermetering@orc.govt.nz](mailto:watermetering@orc.govt.nz)

## And the winner is...

A huge congratulations to Cody and Nicola Hartvigsen, who won the Otago Regional Council Quality Water Management Award at the Ballance Farm Environment Awards held in Wanaka in April. They also won the DairyNZ Sustainability and Stewardship Award for their South Otago farm, Valley Dairy Farms Limited. We'd also like to congratulate the Regional Supreme Award winners – Logan, Ross and Alexa Wallace.

### Have you signed up for On-Stream yet?

We have a monthly e-newsletter that keeps you up to date with what's happening around Otago.

Email us to sign up: [water@orc.govt.nz](mailto:water@orc.govt.nz)



Want another way to keep up to date with what's happening in our region?

You can "Like" Otago Regional Council on Facebook for regular articles and tidbits.

