

# EnviroSOUTH

April 2023

---

## Fish passage

Reconnecting waterways

Page 4

---

## Gorse of the sea

The Fiordland *Undaria* control programme

Page 8

---



environment  
**SOUTHLAND**  
REGIONAL COUNCIL

Te Taiao Tonga

## Contents

Planting for the future	3
Fish passage	4
Pet safety	6
Gorse of the sea	8
New councillors	10
Mataura Community Board	13
Emergency response	14
Erosion planning	16
Updates	18
On the farm	19
Out in the field	20

## EnvirosOUTH

Envirosouth is published three times a year by Environment Southland. It is delivered to every mailbox in the region. We welcome your comments on anything published in this magazine.

ISSN 2537-8902 (Print)  
ISSN 2537-8910 (Online)

### Contact Us

Cnr North Rd & Price St, Invercargill  
(03) 211 5115 | 0800 76 88 45  
service@es.govt.nz | www.es.govt.nz  
www.facebook.com/enviromentsouthland

### Cover

« **Tania Kinita and Ben Coley installing baffles in a concrete culvert to allow for fish passage.**

Printed using ECF (Elemental Chlorine Free) FSC® Certified pulp from Responsible Sources and manufactured under the strict ISO14001 Environmental Management System.



### Our climate resilience projects to improve Southland's flood defences are an ongoing priority.

We have just completed emergency works on the true left bank of the Mataura River in the Mataura township to address erosion risks on a 600m section of the riverbank.

Work on foundations for replacement pumps to help protect the Invercargill airport and surrounding area is in full swing.

The Archimedes screw pumps are fish-friendly and will increase pumping capacity by 40%, helping to meet anticipated sea level rise and flooding over the next 50 years.

Southlanders understand the heartbreak of major floods and we sent skilled personnel to help out with the devastation wreaked by Cyclone Gabrielle.

There is no time like the present to plan for emergencies. Take a look at Emergency Management Southland's website ([cdsouthland.nz/get-home-ready](https://cdsouthland.nz/get-home-ready)) to help you and your family prepare well.

**Wilma Falconer**, Chief Executive, Environment Southland



### Our new council has hit the ground running since the election in October last year.

You can read more about our five new councillors for this triennium further in the magazine.

Coming up to speed with the various pieces of work, while also looking to the future presents a steep learning curve - but they are all rising to that challenge.

Looking forward to this triennium, we have some big opportunities ahead of us.

One of the biggest will be landing Plan Change Tuatahi (the 'first' plan change), which will see limits for resource use included in our Water and Land Plan.

**Nicol Horrell**, Chairman, Environment Southland

# Environment Southland

*A thriving Southland – te taurikura o Murihiku*



▲ Environment Southland education advisor Bronwyn Graham (left) celebrating the anniversary with a class from James Hargest High School and teacher Vicki Davis (right).

# Planting for the future

Fuelled by bread and sausages, around 50 schoolchildren and members of the public joined together to celebrate the 10-year anniversary of the Waihōpai Planting Restoration Project in February.

Although the project at the Waihōpai Dam now spans a decade, its origins stretch back to the late 1970s. Following a major flooding event, this area was purchased by the Southland Catchment Board and a retention dam built shortly after. In the decades that followed, the Waihōpai walkway developed into a popular recreational track for walkers and cyclists. Seeing an opportunity to beautify the tracks, improve water quality and bring bird life back, Environment Southland developed a plan to rehabilitate the paddocks lining the river into native plantings.

In 2013, the Waihōpai Planting Restoration Project was initiated with the help of volunteers from local schools.

Environment Southland senior education advisor Josh Sullivan says the heritage of the project was worth celebrating.

“So many school and community groups have contributed to this project over the past 10 years, planting hundreds of native plants. Some of these kids are now adults and will potentially bring their own children to visit the area that they helped plant.”

The project provides a hand-on experience for students and the public to learn about conservation, water quality,

ecology, biodiversity, riparian planting and sustainability.

For the students, the event was about celebrating the past but with an eye on future outcomes.

James Hargest High School student Luke Payne says, “I liked being a part of this project because I have a real passion for examining seeds and identifying native plants that are endemic to Southland. It is important that we ecosource our plants so that we have the plants that are endemic to Southland. In the future we’ll have native birds and cleaner air from our plants.”

# Remediating fish passage barriers as kaitiaki of the w

Tania Kinita has been a kaitiaki (guardian) throughout her working life but her role with the Southland Fish Passage project gives her the opportunity to meld her love for Aotearoa's environment with her passion for engagement.

A qualified youth worker from Napier, Tania (Ngāti Tahu/Ngāti Whaoa) pivoted her career during the Covid-19 pandemic. She entered the conservation workforce when she took the opportunity to join a three-month Bay Conservation Cadetship in Mount Maunganui, Tauranga.

“We grew up hunting, fishing, gathering kai on our whenua (land) so it just seemed like a great option. Youth work ties into this really well, training rangitahi (young people) how to look after the environment,” she says.

During her cadetship, she met ATS Environmental managing director Kelly Hughes, who was there to speak about fish passage remediation. The two got to talking and he mentioned the need for fish passage remediation contractors in Southland.

In 2020, Environment Southland was awarded \$385,000 from the Government's Mahi mō te Taiao – Jobs for Nature programme between 2020 and 2025 to identify, prioritise and remediate fish barriers in rivers and streams.

Areas for remediation are given priority based on their proximity to the coastline to improve the connections to the sea for native migratory fish.

Soon, Tania was packing up and moving to Southland to play her part in making sure our migratory fish species can access habitats, and hatchlings can make their way out to the moana (sea).



◀ Tania Kinita installing a rubber ramp and mussel rope.

# assage ai

“I love my job – even on a bad, cold, manky day. The beauty of Papatūānuku (earth mother) is when you are standing on her and you’re supporting her and helping new creatures, your mauri (essence) actually elevates. I am an advocate for all things that start tau or balance and it all needs to start by taking care of our vulnerable species.”

Day-to-day, Tania travels the region’s countryside assessing culverts, uploading data and installing materials with different tools to ensure different species have a good flow of water and pools to rest in within the culvert.

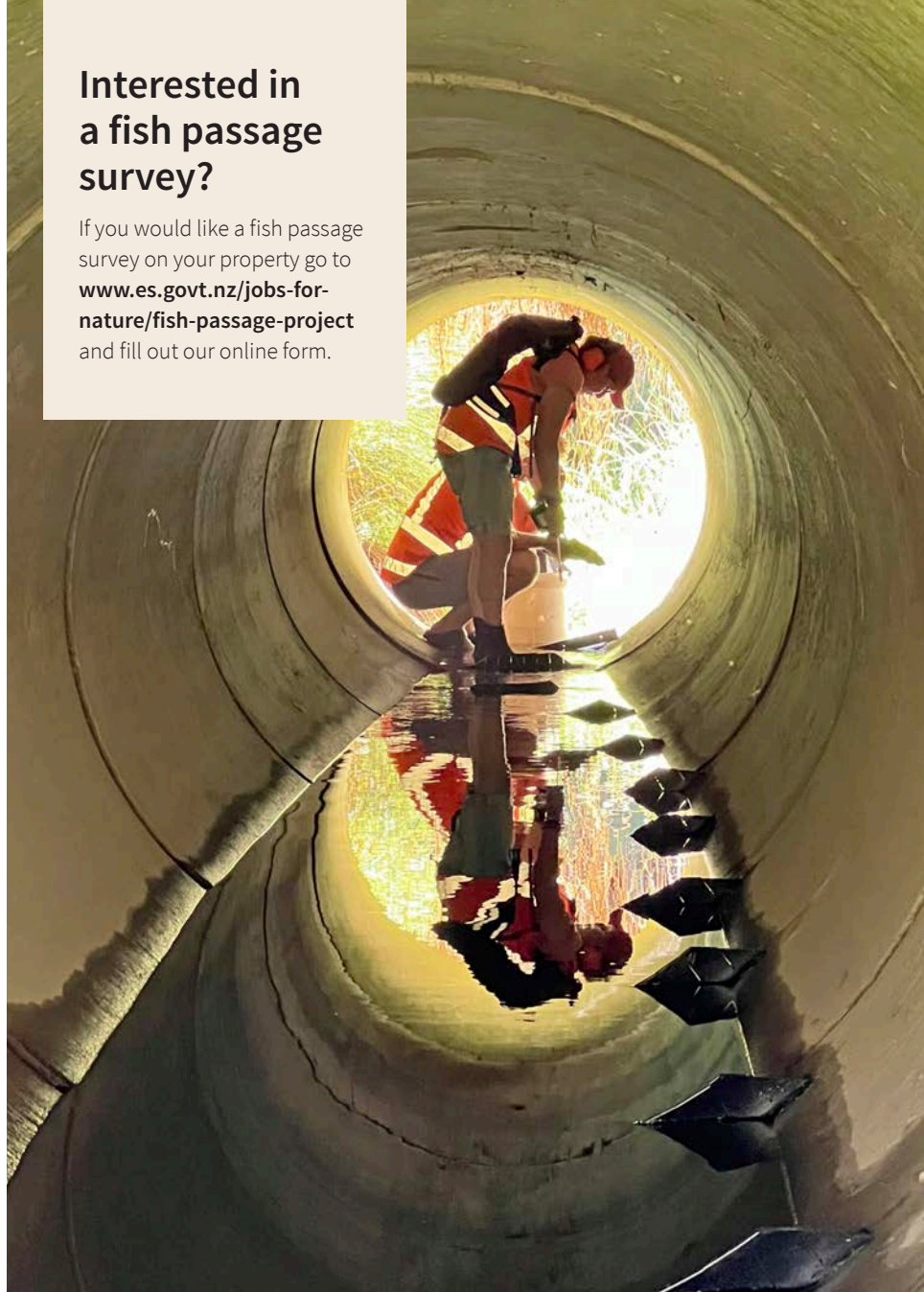
There are many different solutions for restoring fish passage and reconnecting waterways. Many Southland culvert remediations include a rubber ramp and mussel rope to help climbing species make their way up into and through the culverts. Baffles are placed inside the culverts to alter flow and provide rest areas.

Native fish species supported through the work include kanakana, kōkopu, inanga, common bully, redfin bully, bluegill bully, torrentfish, banded kōkopu, kōaro, and longfin eel and shortfin eel. “Most of these species need areas within the culvert to rest before they can continue on through.”

She also engages with landowners and members of the public, often with a casual chat on the side of the road, educating them on the work she and colleague Ben Coley are doing to improve fish movement throughout the region.

## Interested in a fish passage survey?

If you would like a fish passage survey on your property go to [www.es.govt.nz/jobs-for-nature/fish-passage-project](http://www.es.govt.nz/jobs-for-nature/fish-passage-project) and fill out our online form.



▲ Installing baffles in a concrete culvert.

“They catch the enthusiasm and then they realise actually this is quite interesting and want to do all they can to support it,” Tania says.

She believes it is important to restore the mauri of the wai (water) because it creates and sustains life.

“As kaitiaki, our first responsibility is to Papatūānuku and we need to take care of the water, the creatures and the habitat because when that all thrives we as a species thrive. We can tell about the health of humans by the health of the

environment that we live in.”

While kaitiakitanga (guardianship) is a theme that has followed her through her career, Tania’s journey now still intertwines with her previous life as a youth worker. “I think this is important and I think this is what I was created to be and do, albeit I’ve been a youth worker most of my adult career, what I am learning I then teach to our young people because they’re the ones who are going to keep it going. If we can teach them about true kaitiakitanga then that resonates in the rest of their lives.”

# Safety key for barking mad dogs

It's a brave move to change tact after a successful career, but that's exactly what former teacher, Rose Hickey did, to spend more time with family, friends and her puppy.

Rose might be one of the few people who actually enjoyed her time during the 2020 Covid-19 lockdown. Going from commuting to Gore from Otatarā to teach at St Peter's College every day, the lockdown was a welcome change of pace.

"During lockdown, after the teaching was done, I had time. I felt like I had permission to sit down and read a book or go for a walk. I had time to myself and I enjoyed it."

Rose's family are all dog lovers, so when her sister presented her with a new puppy, Rose felt it was time to take a step back from teaching and spend more time at home with Molly, her retrooodle (a golden retriever-poodle mix).

"We would go on these adventures, so I thought 'why not take other peoples' dogs with me?'"

And Barking Mad Dog Adventures was started. In the last year, Rose's business has grown from a few pack walks a week, to doing up to 10 adventures from Tuesday to Friday.

In her specially outfitted van, Rose picks dogs up from their homes and then the adventure begins.

Rose has created packs with like-minded or similar sized dogs, up to eight at a time. Most come every week, or more than once a week.

Some of her favourite adventures are through some of Invercargill's lesser-known bush tracks, but she mixes up the adventures with beach and forest walks too.

"The dogs love it, and the owners love that their pup comes home exercised and happy."

Rose walks rain, hail or shine, and on hot days will often let the dogs take a dip in the river to cool off before heading home.

She's aware that toxic algae is something she needs to keep an eye out for before letting the dogs off the lead.

"The safety of the dogs is really the most important thing, for the owners and for me and my business."

Algae naturally occur in waterways and can flourish during hot and fine conditions. Most algae are harmless. However, some species can produce toxins that are harmful to people and animals if swallowed, or through contact with skin.

Toxic algae are commonly identified in waterways as a dark green/brown slime on rocks, or dark brown/black mats at the water's edge. Dogs are attracted to the musty smell, but even ingesting a small amount can be fatal.

Environment Southland monitors 34 locations for toxic algae monthly, and if high levels are found warnings are put on the Land, Air, Water Aotearoa website – [www.lawa.org.nz](http://www.lawa.org.nz). We also use Facebook and send out Antenno alerts – download the Antenno app from your app store.

Monitoring can't be done everywhere, so it's important all river users know what to look out for.

## Toxic Algae

Be aware, take care!

### What to look out for:

Potentially toxic algae can be recognised in waterways as dark green/brown slime on rocks or dark brown/black mats at the water's edge.

Toxic algae can be harmful to animals and humans when eaten, or water containing the toxins is swallowed.

If you see potentially toxic algae in the waterways, please report it to Environment Southland by calling 0800 76 88 45 or using the Antenno app.

For more information visit [www.es.govt.nz/toxic-algae](http://www.es.govt.nz/toxic-algae)

Outside of her hectic walking schedule, Rose also maintains a busy social media page where she shares photos and stories from the packs' adventures.

"I enjoy sharing a wee story about our adventures, and the families love seeing what their pets have been up to," Rose says. "Like me, I know people are a bit mad for their dogs."

Rose Hickey and friends ▶





# Cutting back the gorse of the sea

While the discovery of *Undaria pinnatifida* (*Undaria*) at Easy Harbour, Rakiura/Stewart Island in June 2022 was a disappointment, efforts to eliminate it are looking positive.

Environment Southland marine biosecurity coordinator Andrea Faris, with the support of divers from the Mahi mō te Taiao – Jobs for Nature Fiordland *Undaria* Control Programme, has taken three trips to Easy Harbour since the incursion was reported by a local.

“It was really cool to get the report from a local, from someone else who is just really in love with the area,” Andrea says.

Following two trips to Easy Harbour last year, divers returned in January and while they found some regrowth, it was at a much lower density and there was no sign of further spread.

Andrea grew up in British Columbia, Canada, and spent her childhood snorkelling off the coast. She has since gone on to make it a 20-year long career, starting as a dive instructor in Canada before doing the same in Mexico and Honduras.

“I like that it’s really calm. I like that you have to be very present in the moment with diving.”

In 2011, she came to New Zealand to take six months off to watch the Rugby World Cup. Inevitably she fell in love with the diving here and moved to Milford Sound where she spent nine years running the Milford Sound Underwater Observatory.

“I had left Milford to try a new opportunity that didn’t quite work out and then got the email from the Fiordland Marine Guardians about the Fiordland *Undaria* Control Programme. I sent it to all my diving contacts in New Zealand and then a week later realised I was being stupid and should apply myself.”

Alongside Environment Southland marine biosecurity coordinator Pauline Dusseau, Andrea oversees week-long trips into Fiordland with the divers from the Fiordland *Undaria* Control Programme.



▲ Andrea Faris

The pair ensure the dive team is getting the job done, respecting the environment and having fun, Andrea says.

“It takes a special person to be able to live in a remote environment but it takes an even more special person when you have to live in a remote environment with six, or 10 other people.”

The training of the Jobs for Nature divers has been instrumental in responding to marine incursions.





---

## Undaria

---

Often given the moniker 'gorse of the sea' for its ability to spread and grow through areas quickly, *Undaria pinnatifida* is an invasive seaweed originally from Japan. It is a threat to marine environments because of its ability to outcompete native plants.

The plant's appearance differs depending on its maturity. Mature plants are brown, green and yellow in colour and grow to between one and two metres. They have a visible midrib up the plant. Juvenile plants have a holdfast and stem and an undivided blade, appearing as a single leaf.

In 2020, Environment Southland received \$2 million over two years from the Government's Mahi mō te Taiao – Jobs for Nature for the Fiordland *Undaria* Control Programme.



### ▲ Diving in Easy Harbour

In 2022, the surveys and removal in Easy Harbour revealed a bigger spread than expected, with more than 300 juvenile *Undaria* plants found between Easy Harbour and False Easy Harbour. However, very few mature plants were found.

Although this was the first find in this area, *Undaria* is present in Oban, Paterson Inlet, with further sightings in Port Adventure.

The dive trip in January is a positive sign that elimination is on track for Easy Harbour, Andrea says.

"It was great. We were able to pick out everything we could find. Yes, there was some regrowth but not as much as what we found in August. With a plant like *Undaria* you're never going to get it on the first round."

During the week of surveying, divers also revisited Broad Bay, where *Undaria* was found on a craypot in 2020 and were happy to discover no further signs of the marine pest.

The final aspect of the dive trip was to survey key anchorages around the southern coast of Rakiura and within Port Pegasus for *Undaria* and none was found. Divers will continue to make trips to the island to survey and remove the pest from Easy Harbour.

For Andrea, these positive results are why she loves her role.

"I was blown away. All the Stewart Islanders have told me not to tell anybody about this but I will. The diving is amazing.

"Being able to go to Stewart Island and go to dive sites where there's dozens of different plant species and then seeing all the diversity and the life – the fish, the octopi, the sea lions. It really hits home why we do biosecurity work – so that there is biodiversity."

# Meet your new

Five new councillors joined Environment Southland in 2022. Find out a little bit more about them.

## **JON PEMBERTON** Southern Constituency



Jon is a fourth generation dairy farmer. He, his wife Birgit and their three young children live on their leased property at Menzies Ferry and own another at Brydone.

Birgit is from Austria and they get back to visit when they can. They also enjoy exploring the southern wilderness in their old truck, which they've converted into a mobile camper.

Originally from Canterbury, Jon moved to Southland as a teenager and considers it home.

"It's a great province with capable people. We punch above our weight in most

aspects, environmentally and in farming."

Jon is on the board of Thriving Southland and believes he inherited his approach to farming from his grandfather, who was environmentally and technologically progressive.

When the Council is making important decisions like setting limits, Jon says he wants to make sure people in communities like his, continue to thrive.

"I'm a farmer with a young family, so I understand the importance of making sure we take the whole community with us through the journey of improving our environment for the future generations."

## **PAUL EVANS** Fiordland Constituency



Paul and his wife Kim were born and raised in Southland. They have three grown children and enjoy mountain views from their home in the Te Anau township, where he is the manager of Mitre 10.

Paul's family were sawmillers until the 1980s. He grew up in Tuatapere, moving to Te Anau when he was 16-years-old. He started his working life in hospitality before shifting to retail management.

The Waiau River and the surrounding area is his passion. He knows the river from the headwaters in the Eglinton Valley, through to Te Anau, Manapouri, Tuatapere and on to the mouth in Fiordland.

"The flow of that river – everything west of that line makes me who I am."

Paul enjoys jet boating in the lower reaches of the Waiau and plays a bit of golf.

He brings a business perspective to the council and a voice for Southland issues in Fiordland.

"People know me and are willing to talk to me."

# councillors

## PHIL MORRISON Invercargill-Rakiura Constituency

Phil is a business consultant with a passion for learning. He grew up in Waikaka Valley and had a career away before returning in 2016. He and his wife Jah live in Invercargill and have two grown children.

After high school, Phil jumped at the opportunity to gain a free university education in Australia and live abroad with the New Zealand Army. It's a career that spanned 25 years.

He met Jah, a Thai national, on his first overseas stint in Cambodia, where he taught mine clearance (1992, UN). Other stints followed: East Timor for the national popular consultation (1999, UN); and Iraq for humanitarian reconstruction (2004).

There was further study in Singapore. He eventually left the military to work at Massey University, lecturing in defence and security, completing a Master of Business Administration while he was there.

More recently, Phil joined the Regional Forum, a community-based group that recommended methods to improve Southland's freshwater quality to the Council. "We were privileged with some fantastic, rich information."

"Helping Environment Southland take the recommendations forward is what really motivates me."



## ALASTAIR GIBSON Eastern-Dome Constituency

Alastair is an agricultural mediator and consultant. He and his wife Alison brought up their four children on their 20-hectare property in Riversdale, where they have lived for 30 years.

Originally from Otago, Alastair's life has always had a rural focus. His father was a sheep and beef farmer and after getting his degree in agri-science he worked in Auckland as an animal husbandry specialist.

Alastair and Alison came south in the late '80s to manage a sheep and beef farm near Milton, before moving to their Southland property, where they produce baleage and keep a few sheep.

Up until recent times, the couple had hosted farming groups on educational holidays to either the United Kingdom or North America. Nowadays, they enjoy four-wheel driving together and getting into the back blocks.

People are at the centre of Alastair's career as a mediator. Being there for the community is what drives him as a councillor. "I was sitting outside making noises and I thought 'why don't I get on the inside?'"



## MAURICE RODWAY Invercargill-Rakiura Constituency



Maurice and his wife Alison have created an idyllic garden at their home in the native bush-clad suburb of Otatara in Invercargill.

The couple met when they were school teachers in Gore during the '70s. Maurice is originally from Marlborough and Alison, from Whanganui, but Invercargill is where they brought up their children. "Southland is home."

The former Environment Southland councillor (2007-2019) is an honorary ranger for the nearby 70ha Ōreti Tōtara Dune Forest, which he and other volunteers are restoring.

Maurice is also the former Southland Fish and Game manager (1984-2016). He has an interest and qualifications in agricultural nutrient management, having supported farmers to farm more sustainably.

Trout fishing in Southland rivers is a long-time passion. More recently, he's become a regular down at the table tennis club in Invercargill, too.

Maurice is pleased to be back on council. "I want to see through the water and land plan, Plan Change Tuatahi and the regional forum's recommendations."

## ENVIRONMENT SOUTHLAND'S COUNCIL

The regional council is made up of 12 councillors elected democratically by the Southland public. They represent six constituencies.

Your locally elected councillors represent you to ensure that local needs are met by making decisions and setting the direction for the sustainable use of resources. The members of the current council were elected in October 2022 for a three-year term.

▶ Find out more about them on our website – [www.es.govt.nz/councillors](http://www.es.govt.nz/councillors)



▲ Environment Southland's Council, left to right: Cr. Phil Morrison, Cr. Neville Cook, Cr. Alastair Gibson, Chairman Nicol Horrell, Cr. Robert Guyton, Cr. Peter MacDonald, Cr. Maurice Rodway, Cr. Jon Pemberton, Cr. Eric Roy, Cr. Lyndal Ludlow, Cr. Paul Evans, Deputy Chairman Jeremy McPhail.

# Life-long volunteer turned Matura Community Board chair

After raising her family in Matura for the past 20 years, Nicky Coats is proud to be the first female chairperson elected to the Matura Community Board since its establishment.

The five board members, elected at the October Local Government elections last year, play a vital role as they represent the community and advocate for local issues - a job Nicky doesn't take lightly. She hopes that with guidance from local government, the members can drive business growth, development, and even tourism.

"I want to see Matura thriving again, and I want it to be a desirable place for future generations to raise their families."

Serving her first term on the board, Nicky is excited about the future and knows the town has so much potential. Whether through fishing tours, river cruises or a cycleway along the river - she is inspired to bring about positive change.

Over the years, Nicky has volunteered for several local organisations and community groups, such as The Matura Youth Trust, a group she has supported for more than 12 years. The trust affectionately repurposed the old town hall to create 'The Bunker' - a function room for family and youth. Nicky runs weekly events at the venue and believes the relationships she made through the trust are one of the reasons she was elected to the community board.

As a mum of three, she has experienced first-hand the benefits of connecting through community groups. In fact, 15-years on, Nicky still facilitates the much-loved preschool group her children once attended.

"Matura is an awesome community to be a part of. I enjoy the people and the banter - that's one of the reasons why I volunteer."

Through her community mahi, Nicky sees how valuable advocating for change is. The board has worked closely with Gore District Council to connect their vision for their town to tangible outcomes through planning and goal-setting workshops.

"We should have access to quality medical care, parks and playgrounds that families can enjoy and a town centre they can be proud of."

---

**"Matura is an awesome community to be a part of. I enjoy the people and the banter - that's one of the reasons why I volunteer."**

NICKY COATS

---

Since the October elections, she has seen positive changes being made in the community, the most significant being the work Environment Southland has done to strengthen the Matura stop bank.

Last year, Environment Southland confirmed that river engineers were concerned about a 600m section of riverbank along the Matura township that was at risk of erosion.

Strengthening work, involving moving 27,000 tonnes of rock, got underway in January. The work is now complete.

"Environment Southland has done a really good job. It's important work, especially with the recent events in the North Island. The strengthening should give residents peace of mind."

As the frequency of flooding events is likely to increase, residents across all communities are encouraged to prepare for emergencies and evacuation.

"It's important to consider what you need in a disaster situation. Everyone should have a survival kit with enough water, food, and medication to last at least three days. Get to know your neighbours and make a plan."



▲ Nicky Coats

# Putting communities heart of emergency

From Southland to Iceland, Aly Curd has been sharing Southland's emergency response planning with an international audience.

In recent years, Aotearoa New Zealand has experienced a variety of emergencies – from floods and cyclones to earthquakes and pandemics. Southern residents, in particular, will remember the impacts of the 2020 floods and the subsequent evacuations of Milford Sound, Wyndham, Gore and Maitua.

Aly Curd, Emergency Management Southland (EMS) resilience team leader, says the community response to the Southland floods was planned for and quickly implemented.

"Before the floods we had begun testing a new national model for community response in Southland. This involved working with communities, focusing on their local resources, their assets and what they already had."

Through a combination of meetings and workshops, the EMS team was able to help develop community response groups and plans.

"The great thing about it is that anyone can be a part of the community response. Whether you're making a cup of tea, or supporting and running a community response hub. It all matters."

The model was put to the test during the Southland floods. Aly says having an empowered community during the 2020 floods proved a critical part of the successful emergency response.

"It worked well so we wanted to share this message with a global audience."

Thanks to a travel scholarship from Land Search and Rescue New Zealand, Aly was able to speak to an international audience at the 15th Search and Rescue Conference in Reykjavik, Iceland, in late 2022. Delegates gathered from around the world to share their projects, present ideas and strengthen global emergency management networks.

Aly's paper, 'Emergency Response Planning: Putting communities at the heart of emergency response', highlighted the benefits of working with communities and used the Milford Sound response as a case study.

"We wanted to share how we strengthen our communities before, during and after an emergency."

After hearing how other nations are working, Aly realised just how well Southland was doing on an international level.

"I had some great discussions with people from around the globe. In particular, I spent time talking with representatives from Australia, the USA and Canada who were keen to learn more about our community response planning and community hubs."

---

"We wanted to share how we strengthen our communities before, during and after an emergency."

ALY CURD

---

Following the formal conference proceedings, Aly spent another three days with other delegates and local guides exploring Iceland. She learned how local emergency response adapted to the challenges of living in such a unique landscape.

"Several years ago, a lava flow threatened an Icelandic settlement. The local firefighters pumped seawater directly onto the lava to create a solid bank that diverted the flow away. It's hard to imagine those sorts of scenarios in Southland. But it does go to show that communities everywhere are resourceful, innovative and able to rise to the challenge in an emergency."

In addition to the lava fields, Aly was able to explore some of the unique geology and landscapes of Iceland. Visiting massive glaciers and learning about how climate change is affecting them was particularly memorable.

"It gave me a chance to get my 'nerd' on," she laughs. "Did you know Iceland has the third largest glacier in the world, just behind Antarctica and Greenland? Sadly, they're melting faster than they're recovering."

# at the response

“I’m grateful for this experience and to meet other like-minded people involved with emergency response planning.”

Since her return, Aly has been deployed to the North Island to support communities responding to Cyclone Gabrielle. Her conference learnings around managing teams in high stress environments proved helpful.

▼ Aly Curd, Vatnajokull Glacier, Iceland

Moving into the recovery phase of an emergency response, Aly acknowledges just how important that space is and how we can always be doing more to plan and progress this area.

“Helping our communities be more resilient by putting them at the heart of the response is a no brainer. We’re all in it together.”

## THERE ARE THREE KEY STEPS TO BEING READY FOR ANY EMERGENCY.

### 1. Make a plan

A household emergency plan will help protect what matters most - you, your loved ones and your pets. It includes knowing the best way to leave your home in an emergency, where to meet and how to contact one another if separated.

### 2. Gather supplies

Whether you’re just starting out or you’re a preparedness pro, gathering your emergency supplies is easy. A good rule of thumb is to have supplies for about three days. You’ll be surprised at how much you already have.

Many emergency or disaster situations could leave you and your loved ones stranded at home for days. Supplies you should consider include clean drinking water, blankets or sleeping bags, first aid kit materials, non-perishable food, and a torch and radio. Personal medications, pet supplies and food for your young family members are also important.

### 3. Get connected

In an emergency or disaster situation, you’ll need to know how to get information and how to connect with people around you in your community. Now is a good time to connect so you’ll be ready if a disaster situation occurs.

**To find out more, and download a handy Household Emergency Plan template, go to [www.cdsouthland.nz/get-home-ready/](http://www.cdsouthland.nz/get-home-ready/)**



# Erosion planning key for

Long-time Waituna Creek sheep and beef farmer Rex Botting understands the connection between his land, climate change and the effects of erosion on waterways, and ultimately the Waituna Lagoon.

**R**ex and Heather Botting have been farming in the catchment for 35 years, and over that time have enhanced the farm with fencing and riparian planting.

However heavy rainfall and flooding pose continual challenges for the farm, the creek and the lagoon.

Erosion has led to undermining or caving in of banks and slumping. As well as damaging productive farmland, sediment washing into waterways from eroded soils threatens fish and plant life in the creek and the lagoon.

Over the years, Rex and Heather have financially contributed through their catchment rates towards re-battering creek banks (creating slopes) lower down in the catchment, which are now less prone to erosion.

“That was good, although there was no direct benefit for our property,” Rex says. “Being able to tap into the new Waituna Creek Bank Stabilisation Rate set by Environment Southland has meant we are able to properly address erosion issues on our farm.”

“Our property is about two-thirds of the way up the catchment and we have both a long-term history on the farm, and a future in the catchment, so we wanted to sort it out.”

Using the funding allocation, Environment Southland organised for a contractor to trim trees, fix eroding areas, tidy slumped banks and put rock in place.

A two-stage channel also was considered but was ruled out. This would have seen a tier-type construction for the stream banks, rather than a rebattered format that has a longer, smooth slope.

As Rex pointed out, it would have required too much land to be taken away and he didn't think it was the best solution on his stretch of the creek.

Rex says he's happy to share his experience with others. “We're happy to open our property to other locals so they can see the issues and work done.”

“Erosion is a key issue in the catchment and we need to know which sites need to be fixed, and the best method. The creek is different from the top to the bottom, and different techniques will always be needed.”

Environment Southland catchment integration manager Fiona Young says the increased likelihood of flooding due to climate change means we have to adapt and think differently.

“That's why we're creating a Waituna Creek Erosion Management Plan, which will cover the creek from top to bottom.”

“We need to think about why erosion is occurring, and use everything in the tool box when it comes to erosion management.”

“The natural meandering of the Waituna Creek is long gone,” Fiona says. “Whenever we have big rains, the faster moving waters in these straightened waterways take out banks and flood farmland along the way. We need to come up with a plan that allows a return to a more natural meandering, prevents flooding and damage to fish and plant habitat, and does not affect water quality.”

This work aligns with the goals of the Whakamana te Waituna Trust, of which Environment Southland is a partner. This trust was set up to restore the mana of the Waituna Lagoon and catchment.

## Waituna work to continue

The Ministry for the Environment funding for Whakamana te Waituna's first phase of work draws to a close in the next couple of months.

The Trust, set up to restore the mana of the Waituna Lagoon and catchment, has been working through what “Phase 2” might look like and the opportunities arising from the first five years working collectively in the area.

The Trust's executive director Bob Penter says a couple of phase one projects will continue – including a trial constructed wetland in the Carran Creek area, and the Southland District Council is progressing with the Waghorn Rd bridge upgrade.

The Whakamana te Waituna Trust coordinates the activities of partners Te Runanga o Awarua/Te Runanga o Ngāi Tahu, Department of Conservation, Environment Southland, Southland District Council and Fonterra (through its joint Living Water programme with DOC).

**More information is available at [waituna.org.nz](http://waituna.org.nz).**



# lagoon and catchment

“In our commitment to Whakamana te Waituna, we’re taking a ki uta ki tai approach – from the mountains to the sea, or a whole of catchment approach. We know that fixing erosion issues along the Waituna Creek and its tributaries might take 100 years, because this is work that needs to be carefully planned and managed.”

“There will be some trial and error as we work to reinstate a more natural state to our waterways, while keeping the livelihoods of landowners top of mind.”

A draft plan is being developed with the community and iwi, and is likely to be available mid-year, with a view to beginning implementation next summer. The first part

of the plan will take in Waituna Creek, and may also include the Jordan, Maher and Armstrong tributaries.

Rex agrees setting out the plan is important, and he suggests it will need to be ongoing, as flooding will continue to happen.



▲ Waituna farmer Rex Botting, with Environment Southland's works supervisor Craig King and land sustainability officer Becky Crack, at Waituna Creek on Rex's property.

# Updates



## OUTDOOR BURNING

Our winter air quality monitoring gets underway on 1 May. Although we monitor air quality in Invercargill and Gore all year round, we have a special focus during the winter months when air pollution is at its worse.

Poor air quality can impact on people's health, especially our most vulnerable, so we need to work together to improve it.

From 1 May until 31 August, most outdoor burning is prohibited within the Invercargill and Gore airsheds. You can continue to use barbecues, hāngī and braziers. If you live outside the airshed, you are permitted to burn, but there are rules about what you can burn and you are responsible for ensuring you do not create a smoke nuisance that affects others.

Find out more about the burning rules at [www.BreatheEasySouthland.co.nz](http://www.BreatheEasySouthland.co.nz)

We're running a free firewood giveaway again this year – make sure you listen out to The Hits in late May.



## 2023 ENVIRONMENT AWARDS

This year the Environment Southland Community Awards celebrate 27 years of recognising Southland's environmental champions. Nominations for the awards open in June and there are multiple categories to enter including rural, business and community.

You can nominate yourself or others who you know are doing great things for Southland's environment. As well as cash prizes to be won in each category, the awards provide a wonderful opportunity to showcase the environmental work and commitment of people in our region.

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



## ANNUAL PLAN

The Annual Plan 2023/24 is in development, taking into account a large number of challenges in this current environment.

Our annual plan sets out what we aim to achieve in the next financial year, through our work programmes and associated budgets. Our top priorities continue to be working to protect and restore our freshwater, building our resilience to the impacts of climate change, and undertaking transformative work within our organisation to increase our efficiency and better meet the needs of our customers.

Annual plans are effectively an update on the forecasted work and financial information in the Long-term Plan. The Long-term Plan is a 10-year plan, reviewed every three years and it outlines priorities, levels of service and budgets.

Find out more here: [www.es.govt.nz/annual-plan](http://www.es.govt.nz/annual-plan)

# Time to think about...

## MAY

**AIR QUALITY** – Winter air quality monitoring begins – check out [www.breatheeasyouthland.co.nz](http://www.breatheeasyouthland.co.nz) for the latest results and tips on how you can help improve our winter air quality.

**WINTER GRAZING** – Farmers who are intensively winter grazing should have their consents or deemed permitted activity notices in place.

Check our website for a checklist and advice – [www.es.govt.nz/winter-grazing](http://www.es.govt.nz/winter-grazing)

**MUSTELIDS/RATS** – While getting the duck pond ready for shooting season, consider setting and checking traps for mustelids and rats.

## JUNE

**RABBITS** – Winter is the most effective time for rabbit control before they start breeding again in spring.

**GERMAN IVY** – Have you noticed a yellow flowering ivy in your garden? It could be the pest plant, German Ivy, that we're aiming to eradicate from Southland. Check it out on Pest Hub and get in contact with our biosecurity team who will come and investigate.



▲ German Ivy

## JULY

**COUNCIL** – A new financial year is underway. If you're interested in finding out more about the work of council, check out the council and committee meetings. These happen regularly, and are livestreamed and available to watch on our website – [www.es.govt.nz/live-stream](http://www.es.govt.nz/live-stream)

**ENVIRONMENTAL ENHANCEMENT FUND** – This fund can assist with projects to protect and enhance indigenous biodiversity on private and community-owned land in Southland. Applications can be submitted at any time, but funding decisions are made in April and September each year. Visit [www.es.govt.nz/eef](http://www.es.govt.nz/eef) for more information on how to apply.

**WALLABIES** – These animals are capable of having huge impacts on Southland's biodiversity and economy if they get established here. This includes preventing regeneration of native bush, depletion of forest understorey and damage to tall tussock grasslands. They also compete heavily with livestock for pasture and crop. Wallabies are spreading out from their home range of South Canterbury and moving through Otago. If you happen to see or suspect a wallaby in Southland, please report this immediately to the biosecurity pest animal team at Environment Southland.

## On the farm



By **KARL ERIKSON**  
*Principal land sustainability officer*

Winter is approaching and we've noticed an increase in farmers intending to winter graze on grass, with baleage.

Grass-based wintering is an alternative to the more traditional crop grazing and still needs to be carefully managed to minimise any environmental impacts.

Whether you're grazing grass paddocks or forage crops, keep in mind that critical source areas (gullies and swales) can be a conduit for contaminants and sediment, and should be fenced and un-grazed.

Another important consideration with grass and baleage grazing is managing the waste that comes from it.

Air plan rules mean you cannot burn farm waste like baleage wrap and we encourage farmers to develop good waste management plans.

Plans should incorporate how you can reduce your waste, recycling and how you will dispose of waste effectively. Burning plastic waste in particular releases toxins into the air which pose a threat to vegetation, human and animal health, and the environment as a whole. The toxic substances settle on the crops and in our waterways.

In addition, a good plan will benefit your farm business by reducing clutter, improving resource use and even saving money.

There are a number of recycling and disposal options available, for example through services of Recycle South or Plasback. They are good alternatives to burning and burying.

Get in touch with the land sustainability team by calling 0800 76 88 45 or visit our website – [www.es.govt.nz](http://www.es.govt.nz)

To find out more about pest animals and weeds in Southland, including control advice and the latest rules, visit our Southland Pest Hub at [www.pesthub.es.govt.nz](http://www.pesthub.es.govt.nz)

# Out in the field



▲ Environment Southland Tiwai technical lead Graeme McKenzie (right), assists EHS Support's smelter expert Warren Sharp, with a demonstration of core sediment sampling for the independent coastal monitoring programme to address gaps in data on the environmental impacts of the Tiwai smelter.



▲ Environment Southland, with support from the Invercargill City Council, hosted the Thomson's Bush Discovery Day. Around 100 people came out to hunt through the bush and learn more about the plants and pests in the Thomson's Bush area.



▲ Data management officer Etsuko Yoshino collects macroinvertebrates and sediment samples from the Waihōpai River, near Queens Drive, Invercargill. The number of different macroinvertebrates in a stream can give us key insights into the health of that waterway.



▲ Land sustainability officer Becky Crack checking cropped paddocks to ensure that critical source areas were vegetated in grass, had good buffers and were not over 10 degrees in slope. The team were very impressed with what they saw during the two flights.