

# EnvirosOUTH

March 2017

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Loans scheme launched in Gore

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environment  
**SOUTHLAND**  
REGIONAL COUNCIL

Te Taiāo Tonga

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## 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.

### 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

« Children from The Cottage Kindergarten in Invercargill explore what the Bush Kindy has to offer (story page 10).



## I've always had a keen interest in biosecurity.

The impact of pests on crops, pasture, our native plants, birds and other creatures can be devastating.

Keeping pests – animals and weeds – at bay is critically important for Southland given our strong agricultural economy, pristine lakes and the Fiordland National Park.

There's a lot going on in the biosecurity space with the renewing of Southland's Regional Pest Management Plan, work on the Fiordland Marine Pathway Plan, and the follow up on last year's velvetleaf incursion.

Southland needs to be well placed to tackle any such regional biosecurity threats in the future. The Ministry for Primary Industry's recently released *Biosecurity 2025: Direction Statement for New Zealand's biosecurity system* is an important document in that regard.

Successful biosecurity will always be reliant on us all working together – central government, regional councils, farmers and the general public.

**Rob Phillips**, Chief Executive, Environment Southland



## Southland's rivers are a significant natural feature of our landscape and have a real impact on our lives.

Rivers provide recreational opportunities, sources of drinking water, drainage, act as natural barriers, and they can be a flood threat.

Managing drainage and flood schemes on Southland's rivers is a core responsibility of the council and it's something we do in conjunction with local communities.

During February I was busy going to meetings of river liaison committees in the various river catchments.

The committees work closely with the council and have a significant role advising on work progress and approving budgets within their catchments.

River liaison committees are a great example of how the council can work with communities to achieve results

Later this year when the council begins the public engagement on our freshwater process this principle will be foremost in our minds.

**Nicol Horrell**, Chairman, Environment Southland

# Environment Southland

*A vibrant organisation actively enhancing the experience of living and working in a sustainable Southland.*



▲ Corrections officer Brent McGearty holds seedlings in recycled biodegradable milk cartons.

# Prisoners raise plants for partnership project

A simple day out on the Oreti River by Corrections officer and scout leader Brent McGearty and his Jellicoe Sea Scout group, has led to a multi-agency restoration project.

“One of my scouts noticed a heron on the river and didn’t know what it was. On investigation we found there are not as many birds here now as when I was a scout, and we thought that was a bit rotten.”

The scouts wanted to do something about it, so they invited speakers from Fish and Game and Environment Southland along. The group then started pest control efforts, with local businesses chipping in and the Invercargill branch of Hunting and Fishing even buying all the traps.

Brent says getting rid of pests was only part of the equation.

“One of the scouts asked – what do the birds eat? And it’s things like seeds and

berries from flaxes and cabbage trees, and any of those plants that aren’t there in the numbers that they once were.”

With help from the local iwi and the Otatara Community Nursery, the scouts came up with a list of plants that were suitable for riparian planting along ‘their’ stretch of the river. The Invercargill City Council also came to the party supplying 4000 seeds for flaxes, wineberries, pittosporums and cabbage trees.

In the process Brent spoke to his boss at work, who was also keen to help.

“The prison’s got tunnel houses, so we thought – why don’t the prisoners propagate the plants? And they’ve really taken to it.”

Prisoners work in the tunnel houses each day providing all the labour, and the work they do qualifies them for unit standards toward a horticultural qualification. It’s winners all-round, says Brent.

“Without these guys we couldn’t have done it.”

He looks forward to planting with his scout group and hopes the collaboration between the Department of Corrections, ICC and local community groups will remain for years to come.

“What I would like to see in the long term is for other scout groups to take up their own little piece of Southland, keeping pest numbers low and improving the environment for birds.”



Hutchwilco

150N  
150 NEW ZEALAND SAFETY  
MANUAL

HARBOURMASTER



# A career on the water

After 20 years in the Navy, most people would be keen to keep their feet on dry land, but new harbourmaster and maritime manager Lyndon Cleaver loves nothing more than getting out on the water.

Taking on this new role is something Lyndon has worked towards, having been a maritime officer with Environment Southland for five years, working alongside former harbourmaster Kevin O’Sullivan.

Together the pair have been tackling the challenges of navigational safety within the Southland region and with Kevin gone, it’s time for Lyndon to step up into the senior role.

While he jokes he still has his training wheels on (or more appropriately his “floaties”), Lyndon has spent his whole career preparing for this in one way or another, with his time in the Navy and then several years working in the maritime section of New Zealand Customs.

“I was always a bit of a water rat as a kid. Born and raised in Riverton, with a crib in Te Anau, we spent all of our time in and out of the water, so it’s probably no surprise that I’ve ended up in jobs like this.”

To many, the role of harbourmaster may seem like a dream come true – day after day cruising on the water, waving to other boaties, offering boating safety advice and boarding some of the world’s most amazing cruise ships.

The reality is much less glamorous. Sure, there’s plenty of time out on the water but it usually means working at the times when others are out enjoying themselves, weekends and holidays and there’s some pretty serious work to ensure boaties are keeping themselves and others safe.

Then there’s the very sobering side to being a harbourmaster – when things all go tragically wrong.

“We have an assistance role to play when there has been an incident involving a

serious injury or loss of life. We work with the Police and Maritime New Zealand wherever we are needed.”

For Lyndon, the driving force behind his work is a desire to see people able to enjoy the many opportunities our water affords us, while staying safe.

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“There is still a change of culture needed in some areas, particularly with regard to wearing lifejackets.”

LYNDON CLEAVER

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“We want everybody’s experience to be positive. We don’t want to have to be out there issuing infringements and waving a big stick, but more importantly, we want everybody to stay safe and come home.”

Lyndon has seen an improving attitude to safety on the water, but says there remains a long way to go.

“There is still a change of culture needed in some areas, particularly with regard to wearing lifejackets. Being out on the water is a privilege but it comes with risks and responsibilities.”

In the last few years, Lyndon has directed his attention towards younger boaties, with a school-based initiative teaching boating safety and the importance of lifejackets.

“You need to do more than going crook at the parents. Education is a big part of our work and the more we educate people, the less enforcement is required.”

## Stay safe on the water

Under the Navigation Safety Bylaws, boaties have a few obligations and if you are the skipper, responsibility for all those on the boat lies with YOU.

### Lifejackets

If you’re the skipper of a boat six metres and under in length, it’s your responsibility to make sure everyone on board wears a lifejacket, the right size and type.

### Communications

All boats must carry at least two means of communication in case of trouble.

*Enjoy your boating and make sure you stay safe.*

*Visit our website [www.es.govt.nz](http://www.es.govt.nz) to check out our Navigation Safety Guidelines and Bylaws.*

# Wood retailers play their part to improve air quality

Helping people to source dry firewood is the goal of the Good Wood Approved Suppliers Scheme, launched recently by Environment Southland.

The scheme is a voluntary programme for wood retailers who are committed to being a trusted source of dry firewood.

Wood retailers who have signed up to the scheme will display a Good Wood Approved Supplier logo and agree to supplying either firewood with a moisture content of less than 25% or if they supply unseasoned wood, this is done with the customer's knowledge and advice is given on how to properly store and season it.

Wet wood produces large amounts of smoke, reduces the heat from your fire and contributes to the poor air quality often experienced in Southland over the winter months. The major cause of poor air quality is emissions from domestic burners and the Regional Air Plan adopted last year looks to address many of those issues by phasing out open fires and non-compliant fires. It also prohibits the burning of wood with a moisture content of more than 25%.

Gibbs Firewood and Coal operations manager Ross McCallum was one of the first to sign up to the scheme, which he believes fits with his company's own values of providing people with the right fuel and advice to ensure they can operate their fires well.

"Many people come to us asking what they should be burning, how they should be storing it and we believe it is our job to look after our customers so they will return."

Ross says spending that bit of extra time to ensure people are burning the best quality wood not only protects his business reputation but improves the warmth of homes and the quality of the air for the whole community.

Gibbs Firewood has recently installed a new system to help ensure their supply of dry wood throughout the winter. Using equipment imported from Sweden, wood is wrapped in plastic netting and stored

outside, allowing the wind to blow through while the rain runs off the netting.

"When storing wood, whether at home or in a business like ours, it's important that air is allowed to circulate around it, as this will ensure it is sufficiently dry for burning."

**GOOD WOOD**  
*Approved Supplier*

- ▶ **ECOWOOD**  
Phone: 0800 ECOWOOD  
(0800 326 9663)
- ▶ **FIREWOOD PLUS**  
Phone: 027 442 7674
- ▶ **GIBBS WOOD & COAL**  
Phone: 03 214 4414



▲ Gibbs Firewood operations manager Ross McCallum with some of the wood stored in netting outside, allowing air to circulate and improve the drying time.



▲ Awarua Synergy manager Sumaria Beaton, Gore District mayor Tracy Hicks and Environment Southland chairman Nicol Horrell sign the formal agreement to launch the Clean Air Loans scheme in Gore in February.

# Loans for home heating

Changing to cleaner forms of home heating is now easier with the Clean Air Loans Schemes for Gore and Invercargill.

The scheme for those living in the Invercargill airshed was launched last year and has proved very successful, with more than 69 people taking up the low interest loans. This scheme is based on Environment Southland and Invercargill City Council jointly contributing funds towards the scheme, which is managed by Awarua Synergy.

In February 2017 the Gore District Council signed an agreement with Environment Southland and Awarua Synergy to administer a loan scheme for Gore residents, providing interest-free loans of up to \$5,000 each for residents to change their non-compliant heating. The heating scheme is funded by Environment Southland and Gore District Council has provided an additional \$50,000 for a loan pilot scheme to provide insulation.

In winter, air quality in Southland can be poor, contributing to health issues especially for those already vulnerable, such as the elderly and people with respiratory

illnesses. Domestic heating is the leading contributor of pollutants and the Regional Air Plan, adopted in 2016, aims to help improve our air quality by phasing out open fires and non-compliant burners in the Invercargill and Gore airsheds.

Environment Southland chairman Nicol Horrell says it is great to have loan schemes operating in both areas, as helping people make the move to cleaner heating will benefit the whole community.

“We understand that making the changes to home heating isn’t easy and this loan scheme is one way we can assist.”

Gore District mayor Tracy Hicks says his council’s support for the interest free loan for insulation was to ensure the benefits of any new heating systems were not lost through poor insulation.

“This scheme opens an opportunity for lower income families to improve their home, making it a warmer and healthier place to live.”

Awarua Synergy manager Sumaria Beaton says anybody who lives within the Invercargill or Gore airsheds and has a non-compliant burner or open fire can apply if they are a ratepayer and don’t have any rates in arrears. They can borrow up to \$5,000, which will be paid back over a five-year period.

As part of the application process, the team from Awarua Synergy will work with homeowners to establish the most efficient and effective form of clean heating for their homes.





# Beets, oats and grass on the menu for lucky cows

▲ Land sustainability officer Karl Erikson and farmer Dylan Ditchfield in front of the harvested oats.

At a time when there's a spotlight on the dairy industry's impact on waterways, Southland dairy farmer Dylan Ditchfield is working on changes that are showing great potential for improvements on-farm and for water quality.

Dylan had Environment Southland land sustainability officer Karl Erikson develop a Focus Activity Farm Plan for his Glenlapa property. In the plan, Karl suggested a sequence crop because of the particularly well-draining soils on Dylan's winter grazing blocks. These soils are a high risk for nitrogen losses to streams and groundwater. "We weren't sure if the climate and weather in the area would make this a viable option, so we were keen to find out," Karl says.

Sequence cropping refers to growing crops on the same field in the same year, one crop being sown after the harvest of the other.

Karl, who has a passion for keeping up with the latest farm systems research, was inspired by a presentation on sequence cropping at a farm field day. It was put forward as an answer to the question: How can nitrogen leaching from winter grazing crop paddocks be reduced?

"Results of that study on a farm in Canterbury show that nitrogen leaching can be reduced by 25–30% by planting a sequential crop of oats immediately after harvesting kale, when compared to traditional kale cropping practices," Karl says.

Typical winter grazing practice on a dairy farm would see cows on paddocks from June until around the end of August. Paddocks are often then left bare until they dry in October/November, when they're re-sown with swedes or returned to pasture.

"The paddocks left for two months have a lot of dung and fertiliser on them, which can be moved easily with some heavy rain and lead to overland flow, causing problems for water quality," he says.

Dylan agreed that sequence cropping could not only reduce his nitrogen losses, but could also help to maintain soil condition and provide an additional feed option for his stock.



In late September, Dylan prepared his paddocks and sowed a cold-germinating crop of oats to cope with the cooler Southland climate. He also went a step further and under planted the oats with an annual rye grass.

“We still want to work with fodder beet in the future,” Dylan says. “We recognised the rye grass could give us the flexibility of growing another form of bulk feed (already established post oat harvest) that we could use over the next 12 months before sowing it back into fodder beet the following spring.”

Dylan says the sequence cropping has opened up another alternative to wintering in their farming operation and sees it as a win-win for his farm and the environment.

“We believe it will allow us to feed our younger livestock better, giving us improved live weight gains. It will address the issue of nitrogen losses after winter cropping, because the oat crop takes it up as it establishes and grows. The nitrogen typically would have been lost to the water table.”

Dylan says the initial cost to establish the crop is a bit of a disadvantage, and Southland’s climate makes it challenging to get the seed sown in early spring. But he’s positive about the 7.7 tonne yield from the oats harvest and hopeful they won’t need to bring in extra feed for his livestock this winter.

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**“We believe it will allow us to feed our younger livestock better, giving us improved live weight gains.”**

**DYLAN DITCHFIELD**

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He cites success as limiting the nitrogen leaching, which he thinks has been achieved, but he says they’ll need 12 months to fully understand if they have produced enough high quality, cost effective feed.

“For now we are looking forward to feeding our in-calf heifers on grass and oats, out of the typical muddy environment of winter cropping.”



▲ Dylan’s winter grazing paddock before sowing oats and rye grass.



▲ Alice the dog oversees the paddock of cold-germinating oats.



▲ The oat harvest.

# Teaching children the value of the environment

On Myross Road lives a fantail named Rosie. She's a popular resident with Southland tamariki, many of whom visit the Bush Kindy on Myross Road once a week.



Half paddock half native bush; the space is for the Southland Kindergarten Association's (SKA) Nature Discovery Taiao Tuhura initiative. It also doubles as a space to implement Enviroschools, a nationwide programme coordinated by Environment Southland in partnership with local schools and kindergartens. And Rosie, says Enviroschool's facilitator and Myross Bush head teacher Wendy McLachlan, acts as an unofficial ambassador.

Environment Southland programme leader and Southland Enviroschools regional coordinator Fiona Young says due to the increasing popularity of the Enviroschools programme in Southland early childhood education, two new facilitators have been appointed.

"It's fantastic to welcome new facilitators," Fiona says. "It shows the programme is growing really nicely within the curriculum."

A focus on the journey rather than the destination means Enviroschools is not just an education tool, but a movement for positive change.

Enviroschools runs concurrently with kindergarten life, embedding a kaupapa of stewardship and environmental consideration into each day, based on ecology and Maori kaitiakitanga principles. It's not just nature play says Wendy, but action-based learning. Children tend their own gardens, care for chickens and worm farms, and thread sustainability and conservation into day to day activities.

While Southland primary and secondary schools have been involved since 2005, Wendy was one of the first early childhood teachers to undertake training when SKA partnered with the programme in 2012. She says introducing a culture of environmental empathy is of paramount importance to our youngest Southlanders.

"I think people underestimate the capabilities of little kids. Environmental issues are big ones, and pre-schoolers of today are going to face them in the future. It's the beginning of a journey we need to prepare them for."

Newly trained facilitator Jan Taylor put her hand up for the role last year after touring Tauranga Enviroschools kindergartens for a sustainability conference. As a teacher

◆ Children from The Cottage Kindergarten in Invercargill enjoy their day at the Myross Road Bush Kindy.

at Longbush Kindergarten, she saw Enviroschools as a natural fit alongside her teaching principles.

"[Enviroschools] encourages a very natural part of a child's life, to be exploring and questioning the world, and it provides direction and resourcing which really complement our teaching philosophies. Children can have an amazing impact by bringing things to our attention, which has a big flow-on effect for the community."

The first five years of a child's life are among the most formative, says Ranui Kindergarten facilitator Mel Mc Kerchar, making early experiences the foundation for learning, health and behaviour.

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## “What’s the point in learning these skills if we have no planet left to read, write and arithmetic on?”

**Mel Mc Kerchar**

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“Nga tamariki will be the ones to inherit the earth, our generation should be the ones caring for it and showing them the way. I would like to see... environmental education becoming an important focus in the curriculum - up there with reading, writing and arithmetic. What's the point in learning these skills if we have no planet left to read, write and arithmetic on?”

“Little things become second nature,” says Wendy, “using environmental language and developing empathy for other creatures. From a parents' perspective they say their children concentrate better, and really care about the world around them.”



▲ Rosie the fantail.

Senior SKA teacher Pam Wilson agrees. “Try putting recycling in the rubbish bin at an Enviroschools kindy! You'd very soon be told off.”

She says Enviroschools establishes strong foundations for children as public role models, and it's fast becoming an integral influence in Southland kindergartens.

“Enviroschool resources are now being used to drive programme planning. It's increased teachers' knowledge of Te Ao Maori which is reflected in the children's learning, and we've had parents choose to enrol with a particular kindergarten because they're involved with the programme.”

Meanwhile, Rosie the fantail has been spotted as far away as Glenorchy by Wendy's students.

“Don't tell the children...but I don't think it's the same fantail,” she laughs. “It's what Rosie represents that makes her special. It shows the children are really taking away what we are trying to teach them.”

*For more information, check out the Environment Southland website or [www.enviroschools.org.nz](http://www.enviroschools.org.nz)*





# Change of plan is worth the effort

▲ Balfour farmer Jeff Grant checks crops in a paddock where velvetleaf was found last year.

The planned crops in Jeff Grant's paddocks may have changed, but that's a small price to pay to prevent velvetleaf establishing, according to the Balfour farmer.

As a former MP and director on many farming-related boards, Jeff is well informed about the risks pest plants like velvetleaf pose to the agricultural industry in general and the Southland region. And he's not taking any chances with his own property.

Jeff had a single velvetleaf plant discovered in one of his fodder beet crops during the search and destroy response by Environment Southland and Ministry for Primary Industries last year. Although it was a good size, it hadn't seeded, but

he knows only too well how likely it is that other contaminated seed may lie ungerminated in the ground.

"The plant in our paddock was sticking above the crop so was relatively easy to spot, but we don't know how many more plants might come up this year."

Jeff and his staff have got themselves well educated about velvetleaf and everybody knows what to look for. The paddock where velvetleaf was found has been planted in a low crop so any plants will stand out and regular inspections of the

paddock will hopefully pick up any new plants as soon as they appear.

A contractor from Environment Southland has been out and helped Jeff and his farm manager develop a farm management plan for the property, including discussions about good on and off-farm biosecurity and future plans for paddocks which have velvetleaf.

"We were already doing regular checks but the contractor provides some useful reminders. It's really important that all farmers are out checking their paddocks



# Velvetleaf identification

Velvetleaf is an annual broad-leaved weed for which all farmers need to routinely check their crops. There are guidelines on the MPI website which provide farm management advice for those properties identified as having this weed. **If you find velvetleaf, please contact MPI immediately on 0800 80 99 66.**



- ◆ Velvetleaf has buttery-yellow flowers about 3cm wide. It flowers from spring through autumn.



- ◆ The leaves are large and heart-shaped and velvety to touch.



- ◆ The plant has distinctive seedpods with 12 to 15 segments in a cup-like ring. Each seedpod is about 2.5cm in diameter.



- ◆ Jackie Watson from Asure Quality with a mature velvetleaf plant found during a farm inspection in autumn 2016.

and getting any of these plants out before they establish.”

Jeff says his original plans to put the paddock into a winter crop had to be changed following MPI’s recommendation, but the lower summer crop is definitely a bonus when it comes to being able to see the weed.

“Sometimes you just have to adapt the plan, that’s what farming is about. In comparison to other weeds, we are lucky this one is easy to see and we can do something about it.”

[www.mpi.govt.nz](http://www.mpi.govt.nz)



One  
farmer's  
battle  
with pines

## Jeff and Linzi Keen pride themselves on their environmental standards, so when thousands of wilding pines started invading their Northern Southland farm they met the challenge head-on.

Jeff's dad John started breaking in the 870ha Tomogalak Gorge property in 1979, and while there was the odd scattered pine tree on the property, there was no sign of the plague to come.

Since then Jeff and Linzi, who run 5500 sheep and beef units on the farm near Balfour, have done a lot of work on the property, with native plantings and waterways being fenced off.

In the late 1990s they realised an invasion was underway as "showers of seed" were coming from the faces of the adjacent Cupola and Mid Dome slopes.

A 160 hectare hill country area that the Keens wanted to maintain in a native grazing state was under threat and they realised they had to act. The land was being taken over by an army of spindly pines, which were no good for anything, not even firewood. The trees grow so tightly together that no light gets in, souring the soil. The pines had the potential to infest and out-compete all other vegetation.

"We were playing into the wilding pines' hands."

What would have happened if they didn't do anything?

"We would have written off up to 160 hectares of the farm."

Worse still, allowing a wilding pine seed source to develop could have been a bigger issue, and they may have ended up being liable for infestations on neighbouring farms.

Their proactive approach has involved a range of activities from fencing and grazing, spraying, and eradication efforts by the Mid Dome Wilding Trees Charitable Trust and Southern Institute of Technology environmental management students.

Students and other volunteers comb large swathes of the property, pulling out pine seedlings up to two years in age.

"We appreciate SIT's continuous support. We couldn't do it without them," Jeff says.

The first time the students walked one 60ha area of the farm about six years ago they pulled out 8000 pine seedlings. When they combed the same area in November 2016, they found just 30, although across a wider area they still pulled out 4000 during a weekend.

It's an ongoing battle and as Jeff looks around the upper slopes on a cool January day, he is surprised to find new seedlings poking out of the earth.

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**"We would have written off up to 160 hectares of the farm."**

**JEFF KEEN**

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He says the trust has done a great job at extinguishing the seed sources on Mid Dome but there are still seeds arriving, so more work is needed. The Trust's programme has focused on bringing in the infestation boundaries and targeting strategic seed sources, in conjunction with building and maintaining relationships with all landowners involved.

"It's been a really good approach."

He says when he initially realised the scale of the problem, he didn't think the pines could be beaten.

Ironically, it is stock pressure which has proven one of the biggest weapons in the fight against wilding pines, with stock eating most seedlings under two years-old.

"It's getting less and less. We're beating it."

If they had not been proactive there could have been up to 80,000 mature trees on the farm now.

The infestation would also have represented a significant fire risk, Jeff says.

He says the high-country environment is "iconic" in New Zealand and needs to be protected.

To complete the entire 12-year Mid Dome project will cost \$8 million. Annual costs, from \$290,000 to \$1,500,000, will vary with the area to be covered (depending on extent, wilding density, weather and accessibility) and control methods used.

The trust needs additional annual funds of \$800,000 until 2019 to achieve the project. The total shortfall for the 12-year project is \$6.5 million.

"The biggest risk is not getting the funding to finish what we've started," Jeff says.



**Mid Dome Wilding Trees**  
*Charitable Trust*

The Mid Dome Wilding Trees Charitable Trust was established in 2006 with a primary goal to eradicate wilding pines from Mid Dome and surrounding land to the point where any re-growth can be managed by landholders. This will protect the ecological, economic, landscape and recreational values of over 100,000 ha of iconic southern high country pastoral and tussock land.

Find out more at [www.middomewildingtreestrust.co.nz](http://www.middomewildingtreestrust.co.nz)

◀ Jeff Keen on his Tomogalak Gorge farm looking towards the Mid Dome area.

# A tsunami – what’s the risk in Southland?

You may have seen recent national advertising about what to do in the event of a tsunami, but do we really need to prepare for tsunamis in Southland?

**T**he short answer is, yes. Southland has the longest coastline of any region in New Zealand, so being able to recognise the natural signs of a potential tsunami and having a plan in place is vital.

If an earthquake is longer than a minute, or strong enough to knock you off your feet, there’s a chance it has triggered a tsunami.

So if you’re near the coast, you need to move inland or uphill as soon as you can and wait for official advice.

“The message is ‘long or strong – get gone’, and that goes for anywhere in the world really,” says Emergency Management advisor Craig Sinclair.



▲ Craig Sinclair, Emergency Management Southland advisor



He says Southland’s biggest risk is a tsunami generated by the Puysegur Trench, a cleft along the ocean floor that extends south of New Zealand. An earthquake there would be felt right across Southland and mean a tsunami could be as little as 60 minutes away from our coast.

The most important thing for Southlanders is acting on the natural warning signs because alerting systems can fail, and scientists need time to consider many variables before an official warning can be put out.

“It’s about being prepared, having an emergency kit ready and having a plan with the family about where you’ll meet up. A really easy and free planning tool is available on [www.happens.nz](http://www.happens.nz) so that’s a good starting point,” Craig says.

Emergency Management Southland is also working with southern councils to produce maps giving people an indication of the extent of a tsunami at any particular location. Once completed, the maps will be available on [www.civildefencesouthland.govt.nz](http://www.civildefencesouthland.govt.nz).



# Telling stories of our region

Southland needs to put its unique stories on a platform to outshine other regions, tourism operators say.

The Southland Regional Development Strategy Action Plan outlines the need to better position and define the 'Southland story' so the region can be marketed more effectively.

The SoRDS Tourism Team had a brief to come up with initiatives that would help grow the industry in the region. This involved exploring how Southland's tourism sector could be developed further, the opportunities that exist to achieve this, and how an increase in tourist numbers would impact on job opportunities and population growth.

It has become clear the storytellers are out there and clues to how our unique stories can create a point of difference are seen in tourism activity already happening in our backyard.

Southland-based Overseas Adventure Travel tour leader Karyn Owen says the company's tours specialise in showing

United States visitors aged 55-plus "a real side to the country".

Clients generally want exactly what Southland has – natural assets in abundance, and interaction with New Zealanders. The latter is surprisingly rare in some regions, Karyn says.

When she speaks to clients before tours, home-hosted meals are almost always top of the wish-list.

Sharon Ford, from Garston's Castle Hill Lodge Bed and Breakfast, says they are noticing a lot more visitors basing themselves at the lodge for a week and doing day-trips all around Southland.

Many of their visitors are keen to visit the likes of Queenstown but not necessarily stay there.

"They've got the serenity around them here. Maybe they just want a bit more of a genuine Kiwi experience."

## SoRDS

The Southland Regional Development Strategy (SoRDS) launched an action plan in November 2016.

SoRDS is a joint initiative between councils, iwi, business and community organisations. Its aim is to increase Southland's population to 105,000 by 2025 (about 10,000 more people); and 110,000 by 2030.



Southland Regional Development Strategy  
TE IWI ME ORANGA RAUEMI



▲ Tourists enjoy the serenity and uniqueness of experiences such as exploring Welcome Rock Trails in Northern Southland.

A different kind of experience is exactly what people are seeking when they volunteer to be part of the Kakapo Recovery Team's efforts.

Team leader Deidre Vercoe says they have a waiting list of people from around New Zealand and the world wanting to be involved.

"The story of the kakapo, their decline and recovery, is an internationally recognised story. Invercargill could be the international home of the kakapo."

Venture Southland tourism sector manager Warrick Low agrees our unique stories are what people will seek out.

"It's the sub-cultures. The cheese-rolls, the ingenuity in engineering of Burt Munro, the Richardson collections, the kakapo," he says.

# Updates



## Swimmability maps

The Government recently announced that it wants 90% of New Zealand's rivers and lakes swimmable by 2040.

It released regional maps showing *E.coli* levels in rivers and toxic algal levels in lakes, as these are two factors that can lead to health risks. Rivers in the orange and red categories present a potentially higher risk for swimming than those in the yellow, green and blue categories.

The Government's information is depicted on an annual basis, and doesn't take into account weather conditions.

Environment Southland provides up-to-date monitoring results and an overall grade based on five years of data on our website, [www.es.govt.nz](http://www.es.govt.nz) and [www.lawa.org.nz](http://www.lawa.org.nz).

People are advised to check our local information before heading out and to assess the water for clarity at the site. If you can stand in knee deep water and see your toes, your risk of getting sick is likely to be lower.



## Southland Community Environment Awards

Nominations for this year's Southland Community Environment Awards will open in August. The 2017 awards will be the 22nd year that Environment Southland has coordinated the event, which is designed to celebrate people who make special and significant contributions that benefit Southland's environment.

There are prizes to be won and a category for everyone—schools, farmers, community groups, businesses and individuals.

More details about nominating a group or someone you know will be available later in the year. The awards will be presented at a gala evening in early November.



## Protecting Fiordland's marine environment

A plan designed to help protect Fiordland from marine pests will soon be operational, following public notification in late February.

The Fiordland Marine Regional Pathway Management Plan is the first of its kind to be developed in New Zealand and aims to reduce the risk of marine pests being carried in on local and visiting vessels. The plan has been developed and will be implemented by a partnership group including Environment Southland, Fiordland Marine Guardians, Ministry for Primary Industries, Department of Conservation and Ngāi Tahu.

The plan incorporates rules for clean vessels, clean gear and residual seawater, which will apply to vessels of all sizes entering the area. It also requires a Clean Vessel Pass which will ensure vessel owners/operators are aware of the risks and the ways they can minimise them.

Further details about the plan and how to apply for a Clean Vessel Pass can be found on [www.es.govt.nz](http://www.es.govt.nz)

# Time to think about...

## MARCH 2017

### **MUSTELIDS (FERRETS and STOATS)**

– Now's a good time to start trapping mustelids to ensure they don't eat your chickens, ducklings or native birds.

**RAGWORT** – Residents should destroy all ragwort within 50 metres of boundaries. At this time of year, plants that have made it through to flowering should be targeted.

**VELVETLEAF** – All farmers need to be checking their crops for any signs of this invasive weed. If you find it, contact MPI on 0800 80 99 66.

**OLD MAN'S BEARD** – Have you seen Old Man's Beard? It's a horribly invasive weed and we need to keep it out of Southland. Please photograph and report any sightings to Environment Southland.

**FIREWOOD** – If you haven't got your firewood supplies sorted yet, you need to give it some thought. Dry firewood is difficult to source once winter hits.

## APRIL 2017

**POTATO WART** – Keep an eye out when digging your Easter potato crop for this unsightly fungus. If you suspect your potatoes are infected, don't move them, simply give us a call.

**BALEAGE WRAP** – Think about how you will dispose of your bale and silage wrap. Under the Regional Air Plan you can no longer burn this, but there are plenty of other ways to safely get rid of it. Check out our website for disposal options.

## MAY 2017

**OUTDOOR BURNING** – If you live in the Invercargill or Gore airshed, burning outdoors is prohibited from 1 May until 31 August. Leisure activities like barbecues, braziers, hangi and fireworks are exempt from this rule.

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

## Down on the farm



By **GARY MORGAN** Environment Southland principal land sustainability officer

There's an old proverb about tree planting which is a gentle reminder of their benefits; *'The best time to plant a tree was 20 years ago. The second best time is today.'*

We need more trees on our farmland. Around the province, I see felled shelterbelts and piles of slash. Some were likely past their use-by date, but I don't often see a corresponding amount of new shelter planting, despite the range of well researched and quantified benefits they provide.

Shelterbelts can improve pasture and crop production. There's shade for stock, they prevent soil erosion in cultivated areas and offer an increase in the biodiversity. There are opportunities for woodlot plantings which suppress gorse, sequester carbon, and generate income.

Alongside providing stability for stream banks, recent research has shown some tree species can mitigate nitrate leaching from intensive agriculture. Deep rooting species intercept leached nitrate at greater depths than the root zone of pastures. The nutrients incorporated above ground may be harvested for stock fodder and bedding, or processed for off-farm commercial uses.

# Out in the field



▲ Environment Southland and Emergency Management Southland staff deploy a containment boom during an oil spill response exercise at Bluff in December 2016. Staff regularly carry out spill exercises in conjunction with other organisations.



▲ Biosecurity officer Shawn Johnson applies a herbicide paste to prevent re-growth of a gunnera plant during the annual eradication programme on Stewart Island over the summer season.



▲ Summer student Lauren Visser inspects a rain gauge on the banks of the Pourakino River. Live data from our rainfall monitoring sites is available on our website, and helps us monitor our water resources and forecast the likely size of a flood.



▲ Environmental technical officers Alice Woodward, Grace Smith and Nathan Hughes gauge water level and flow of the Matura River at Tuturau during high flows.