

EnvirosOUTH

August 2016

Award winners

Celebrating our achievers

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Shed talks

Talking with dairy farmers

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When breathing isn't easy

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environment
SOUTHLAND
REGIONAL COUNCIL
Te Taiao Tonga

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EnvirosOUTH

Envirosouth is published four 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.

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Cover

Craig and Rachael Horrell of Elya Holdings won the Farming Award at the 2016 Southland Community Environment Awards.



It's a real buzz to be able to acknowledge people who are doing such fantastic work towards ensuring a more sustainable Southland for all of us.

Environment Southland has been running the Southland Community Environment Awards for more than 20 years. This year we added the word 'community' into the name to better reflect their wide and inclusive nature.

Every year the judges are impressed by the high calibre of entrants. Yet most are humble and don't see their efforts as particularly special.

But the difference they make can't be underestimated. Our natural resources – water, land, air, coast – underpin Southland's economy and our lifestyle. If we want them to be available for future generations to use and enjoy, we need to look after them.

A common thread with our awards' nominees, year on year, is their willingness to do the right thing and to seek creative and innovative ways to lessen their impact on the environment.

We can all do that.

It starts with the small things – how we handle our waste, what we put down the

storm water drain, and choosing to learn about the issues, get involved and be part of the solutions.

In recent times rural communities have actively engaged in offering practical solutions to help shape the proposed Southland Water and Land Plan, which has a focus on moving all land users towards implementing good management practices. As a result, the working draft of the plan changed substantially.

This plan is a huge step forward and it has been really pleasing to see so many people get involved. Like our environment award nominees, they're out there putting in the effort and making a real difference.

The next stage for the plan will be a hearing in 2017, where all the feedback will be considered and the final decisions made.

Rob Phillips, Chief Executive, Environment Southland

Environment Southland

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

Southland Community Environment Awards 2016

The Southland Community Environment Awards showcase some of the valuable work being done out in the community to improve our environment. Congratulations to all the amazing nominees and our very special winners.



▲ Councillor Marion Miller presents the Councillors' Special Award to members of the Pourakino Catchment Group – Back: Georgie Eade, Geoff Baldwin, Marion Miller, Leon Black and Ross McKenzie. Sitting: David Diprose and Ewen Mathieson.

Councillors' Special Award – Pourakino Catchment Group looking after what's important.

In March 2014 a small group of proactive and environmentally aware Pourakino farmers wanted to take some action in response to reports of declining water quality and proposed regulations.

Led by local dairy farmer David Diprose, the Pourakino Catchment Group was formed with the aim of sharing information and building cooperation and understanding.

"I recognise the importance of communities working together to get an outcome that is desirable, especially with the estuary down at the end of our catchment," David says.

"We felt that the farmers had pretty good farms and followed good practices, but we wanted to make that better and connect the rural with the urban."

In just two years the group has made significant progress. It has held several field days and workshops and close to 85% of farms in the catchment have an environmental farm plan. These actions have helped improve knowledge of good practice around nutrient and land management and are going a long way to developing interest and community solutions to issues.

Individual Award



Winner – Garry Christie

Garry and Angie Christie run a fully self-contained 165ha dairy farm at Mokotua. Garry's passion for the environment is visible in all corners of the farm, but his dedication to good practice extends even beyond his own land.

A lovingly restored 13ha bush block on the outskirts of the farm is filled with the songs of bellbirds, fantails and kereru, who thrive in the recovering undergrowth that was previously damaged by browsing cattle.

Commended – Greg Warden

Glengarry resident Greg Warden doesn't believe life is about sitting around waiting for others to do things.

Since his retirement he's been busier than ever and much of his time is spent giving back to the community.

Greg is well known in the Glengarry area for his efforts; picking up rubbish, pulling weeds and helping with community activities. He's also involved with the Omaui Track and is a quiet and dedicated achiever who is only too happy to put his hand up to help.

Commended – Lynley King

Lynley King is the inspirational teacher behind the environmental learnings at Southland Girls' High School.

She has initiated, developed and delivered a highly successful Environment Science course for year 9 and 10 students at the school.

Lynley shares her ideas and enthusiasm with other teachers, helping them develop a passion for environmental education. She also supports our young people to learn the value of making a difference in the environment.

▲ Garry Christie, winner of the Individual Award.



▲ Greg Warden, commended.

▲ Lynley King, commended.

Schools Award



Winner – Limehills School

Limehills School started out on their Enviroschools journey in 2004 with small, manageable projects. Today, the school's entire curriculum is built around the principles of Enviroschools, and the impact the school has on the environment and community is enormous.

Limehills School has worked through all stages of the Enviroschools programme, and some might say they've gone beyond what the designers of the programme imagined would be possible.

Commended – Heddon Bush School

Around nine years ago, Heddon Bush School children decided to take on a restoration project – a one hectare patch of native bush that had been decimated by stock and dominant grass species.

Affectionately called the 'Donut', the school is able to use this restoration project in their everyday learning and has recently become an Enviroschool. The students have set up an eco-group that is responsible for planning planting days, researching suitable plant species, propagation work, pest and weed control, and monitoring progress.

Through their efforts the Donut is now well on the way to recovery. The recent plantings are taking off and the Donut has been fully fenced and protected by a QE 2 covenant.

Enviroschools

Enviroschools is a national programme that encourages and supports children and young people to create a sustainable school environment.

There are 32 Enviroschools throughout Southland, including several kindergartens.



▲ Students and teachers from Limehills School: from left – Kathy Turnbull (Teacher), Ruby Anderson, Jaime Anderson, Bella Dykes, Jim Turrell (Principal), Tayla Churstain and Callum Taylor.



▲ Heddon Bush students – Max Hamilton, Kaelyn Gardiner, Jack Day, Rosie Dykes, Kim De Kruijff and Alex Drummond.

Commercial Award



Winner – Ernslaw One Ltd

High up in the Avondale Forest, forestry company Ernslaw One Ltd is diversifying its business using areas that are unsuitable for growing trees.

It's created hundreds of ponds in old fire ponds, frost zones and areas near waterways and power lines to farm freshwater crayfish. These ponds also act as sediment traps reducing the amount entering streams.

The farming practice doesn't use any artificial feeding or chemicals and the crayfish are a good indicator of the environmental health of the forest.

The company has taken sediment reduction to the next level and it's dedication to environmental sustainability and protection of the local ecosystems is impressive.



▲ Ernslaw One Ltd has created hundreds of ponds in the Avondale Forest to farm freshwater crayfish.

Commended – Fulton Hogan

Fulton Hogan Southland offer a service for the collection of used oil, promoting the recovery and reuse of this waste product and minimising illegal discharges to the environment.

The Recycling Oil Saves the Environment scheme (ROSE) has been set up to provide a sustainable end use for waste oil products and the company uses collected oil as a burner fuel in their asphalt making process.



▲ Fulton Hogan's used oil recycling scheme operates throughout Southland, providing a great option for disposing of waste oil.

Winner – Winton Rotary Club

During the past four years, the Winton Rotary Club has been working to construct and enhance the Winton Rotary Trail. The 9km track around Winton has benefitted from the extensive planting of native trees and shrubs in areas alongside it.

Members of the club say this project has been one of their most rewarding and has been well received by the community. The project is very much a community effort with plants, funding and 'in kind' donations all raised locally.



▲ The hard work of the Winton Rotary Club is paying off, with the Winton Trail proving popular with locals and visitors.

Winner – Pomona Island Charitable Trust

For the past 10 years the Pomona Island Charitable Trust has been eradicating pests from Pomona and Rona Islands on Lake Manapouri.

Instead of being disheartened when rats and mice reinvaded in 2012 the Trust took action, deploying extensive networks of bait stations and trap sites on both islands. While it's too early to say whether the pests have been eradicated, monitoring has been at 0% for the last eight months. Importantly, the populations of mohua and robins on Pomona are thriving and kiwi have been released again onto Rona.



▲ Kiwi are once again being released onto Rona Island, thanks to the work done by the Pomona Island Charitable Trust in eradicating pests.

Commended – Otatau Community

One judge described it as a little oasis of peace, and that's certainly what the Otatau community were hoping for when they came together to restore the Pourakino Picnic Area.

The area 10kms from Otatau had been left to wrack and ruin, ravaged by 4WD and people leaving litter. The project pulled a number of like-minded people and businesses together to restore this historic community asset. Many volunteer hours, borrowed equipment and donated materials have gone into this restoration.



▲ The Pourakino Picnic Area has been restored and protected from future vandalism by a dedicated group of volunteers.

Community Group Award



Winner – Omaui Landcare Charitable Trust

Since 2013, the Omaui Landcare Charitable Trust's band of volunteers has been waging war on possums, rats and mustelids in the ICC Omaui Reserve.

In 2015 the trust extended its activities into the adjacent DOC reserve. The dedication of this group has had a significant impact on this very special piece of land, with a dramatic reduction in pest animal populations and Omaui residents observing an obvious increase in native birds. The sounds of bellbirds, tuis and fantails echo around the township, with kereru frequent visitors, and even parakeets and kaka have been observed making an appearance.

The trust intends to continue its activities and is considering extending into the surrounding areas of the Omaui peninsula.

▲ An increase in the sounds of native birds around the Omaui township is evidence of the hard work that has been carried out by the Omaui Landcare Charitable Trust.

Commended – Southland Bee Society

Since an initial meeting in 2013, the Southland Bee Society has grown substantially and is now registered as a charitable trust.

It's making huge inroads into educating people about the value of bees and the significant part they play in our environment. The group sees its role as two-fold – providing support and education for existing and beginner beekeepers and promoting public awareness.

Commended – Invercargill South Lions

For almost 20 years, Allan McPherson and John Tait from the Invercargill South Lions Club have dedicated their spare time to maintaining and improving the Kew Bush area behind Southland Hospital.

The restoration and enhancement of the bush has been a huge achievement, and they have made a significant difference to the bush, removing large numbers of pest plants and animals, and planting thousands of native plants.



▲ Invercargill South Lions Club member Allan McPherson has put in many hours of hard work restoring Kew Bush.



▲ Bee keeping is growing in popularity in Southland.

Winner – Stewart Island/Rakiura Community & Environment Trust

The Stewart Island/Rakiura Community and Environment Trust (SIRCET) is a non-profit organisation dedicated to improving the environment surrounding Halfmoon Bay. Formed in 2002, SIRCET's vision is for tieke/saddleback to be resident in their gardens. This is certainly ambitious but SIRCET volunteers feel that achieving this would represent the pinnacle of successful habitat protection.

The trust's main restoration project involves controlling possums, rats and feral cats on 200 hectares of private and public land. Judges were very impressed with the trust's approach and keenness to adopt new technology to make their vision a reality.

The trust recently began trialling Good Nature A24 and A12 traps. The judges saw for themselves the success that these are likely to be for this group.

The trust has also equipped volunteers with a new way of recording their catches, using their mobile phones with GIS mapping software called 'Walk the Line' developed by the Department of Conservation. The software allows volunteers to easily enter and see their own data and creates an easily accessible resource for the trust. The trust can now respond to trends and target their effort more effectively.

Kiwi aversion training for dogs living on the Island has been very well received. The trust has purchased an 'e-kiwi' which allows the trainer to replicate the conditions where local dogs might encounter a kiwi and therefore protect them.

The efforts of these dedicated volunteers are certainly paying off with monitoring showing rat and possum numbers at consistently low levels. Sustained control has resulted in a dramatic increase in the number of native birds present around the township and allowed reintroductions of some species to occur.



▲ Using new technology is allowing SIRCET volunteers to improve their pest control programmes.



▲ A trial of Good Nature traps has proved very successful for the group.

Farming Award

WYNNWILLIAMS
LAWYERS



Winner – Elya Holdings

Elya Holdings is a large 720 hectare specialist grazing unit that aims to minimise its environmental footprint.

Set along the Te Anau–Mossburn Highway, Craig and Rachael Horrell are very proud of the view they are providing of farming for the many thousands of tourists that drive past their farm. They have fenced and planted over 14 kilometres of the Wilderness Stream, placed QE2 covenants on 40 hectares of native bush, created shade by planting over 20,000 trees and have constructed seven wetlands to trap sediment and phosphorus.

▲ Craig and Rachael Horrell of Elya Holdings impressed the judges with their commitment to reducing their environmental footprint.



Commended – George McMeeken and Jaimee Edwards

Father and daughter farmers, George McMeeken and Jaimee Edwards, are determined to leave their 300 hectare farm in better condition for future generations than when George purchased it in 1985.

The property was overrun with unpruned trees and gullies full of gorse. With the gorse now gone and trees pruned or harvested, George and Jaimee are focused on fencing waterways, planting native trees, improving the stock water scheme and caring for their soils.

The judges thought the farm was a great example of good management practices and described George and Jaimee as outstanding stewards of the land.

▲ Father and daughter George McMeeken and Jaimee Edwards are always thinking about the future when making farming decisions.

Other nominees in the 2016 Southland Community Environment Awards included:

- Finlay Weatherburn
- Fulton Hogan – Gore Quarry
- Gay and Ron Munro
- Invercargill Vegan Society
- Love Local Charitable Trust
- Peter Kett
- Sherry Elton
- Southern Humates
- Southland Girls' High School
- Steve Butler
- World Solar

To find out about all of our nominees and watch their videos, go to our website www.es.govt.nz. You can also see photos from the awards night on our Facebook page.



▲ Dairy farmer Tim Smalley and Environment Southland compliance officer Rob Bird discuss consent conditions at a recent shed talk.

‘Shed talks’ strengthen relationships with dairy farmers

A new tool used by compliance staff helps to reduce risks to the environment, while also breaking down some of the myths about compliance officers.

As aptly named, ‘shed talks’ were an idea of compliance officer Michele Te Maro, who saw the value in going through the requirements of an effluent discharge consent together with consent holders, managers and other farm staff in a setting they are comfortable in – their shed.

The aim of a shed talk is to provide a better understanding of the conditions set out in the consent, and to point out spots on the farm where there is a higher risk of effluent reaching waterways.

Compliance officer Rob Bird is part of a team of five officers who spend a large part of their job encouraging, educating and enabling farmers to work within their consent conditions. He’s delivering some of the 30 free shed talks, which were run as a trial by the compliance division this season.

“The talks are a good tool to build our relationship with dairy farmers – it takes down a bit of the idea that we’re out there to get them,” says Rob.

“Most people only hear about us when we have had to take some kind of enforcement action, and it’s ended up in court. But so much more of our job is about educating people, to stop them getting to the place where we need to use enforcement.”

Shed talks are also a useful tool for the induction of new staff to the farm.

Tim Smalley runs a dairy farm north of Winton. He says there’s been a lot of benefit from the shed talk he recently took part in with his staff.

“It was delivered in a good way, and hopefully everybody on the farm now knows what we’re trying to do. We also

“So much more of our job is about educating people to stop them getting to the place where we need to use enforcement.”

Rob Bird

know that we don’t need to be scared to contact Environment Southland if something has happened. I’d definitely recommend a shed talk to others.”

Rob says he’d like to see the shed talk idea take off. “If we can keep people compliant then it saves a lot of time, effort and money, but more importantly it saves effluent getting to the environment where it shouldn’t be.”

New research finds fish need more water than we think

A team from the Cawthron Institute has been investigating the impact of stream-flow on trout, using the Mataura River as the basis for some groundbreaking results.

Southland's Mataura River is an angler's paradise. Often dubbed the world's best dry-fly brown trout fishing river, it's not only renowned for fly fishing, but also as an important bird habitat, which enjoys our highest level of environmental protection – a Water Conservation Order.

The results of the 15-year modelling project reveal that these fish may need more water flowing than is currently predicted by traditional scientific models. The research has focused on trout which drift-feed on small aquatic and terrestrial invertebrates (such as mayflies) that drift in and on the water. But there are

implications for other drift-feeding fish too, including juvenile salmon and native species – such as some whitebait.

Project leader and Cawthron freshwater fisheries scientist Dr John Hayes says a river acts like a conveyor belt delivering the drifting food to the waiting fish. "We've



now shown that as flow declines, the diminished power and transport capacity of a river results in less drifting food. A new computer model that our team developed predicts that this translates to fewer, or more slowly growing, fish.”

It was on the Mataura River that John had what he calls his ‘eureka moment’. The team was running the new model on the river, and up until then he hadn’t appreciated that the concentration of drifting invertebrates increases with water flow, in a similar way that fine sediment concentrations increase with flow.

John and his team were able to demonstrate that traditional modelling substantially underestimated the flow requirements of brown trout in the Mataura River compared to the new model.

A huge amount of sampling and data collection was required to calibrate the model and this is where Environment Southland staff have stepped in, assisting the Cawthron team on the Mataura River.

Environment Southland and Otago Regional Council have already begun to use the model, dubbed the ‘Hayes drift-

NREI’ (net rate of energy intake) model, to assess minimum flow rules in future plans.

Environment Southland water resources scientist Lawrence Kees says freshwater and the species that it supports are key resources in Southland’s lifestyle and economy. “So, managing water for the interests of everyone in Southland is our highest priority.”

He says the past decade has seen an increasing demand on water resources across Southland, which has meant methods for determining its allocation have undergone closer scrutiny.

“It’s vital that we employ the most biologically realistic and defensible methods available to understand how changes in river flow affect aquatic life,” he says.

“Having that robust understanding of ecological requirements is great as it allows us to make the most informed decisions; catering for industry while ensuring the needs of instream life are supported,” he says.

Lawrence and John agree that balancing all needs is difficult, but crucial.

▼ Cawthron freshwater fisheries scientist Dr John Hayes collects samples from the Mataura River.



How does it work?

The new scientific model calculates NREI (net rate of energy intake), which is the difference between how much energy a fish consumes versus how much it expends, when foraging for food.

The model digitally simulates how water flow dislodges and transports invertebrates, how trout forage in the current on the drifting prey, and how this can be quantified in the currency of energy to predict fish numbers and growth rates.

The model can be used to test hypothetical scenarios of stream-flow and habitat, and also takes into account depletion of the drifting invertebrates as fish eat them.

The research team found the concentration of drifting invertebrates decreased as stream-flow declined because the river had less power to pick them up from the river bed and keep them in suspension. This means not only less drifting food for the fish, but also less for the fish’s prey, too, as filter-feeding invertebrates receive less fine particulate food.

Tiny particles causing the problems

A new piece of air quality monitoring equipment is expected to provide even greater insight into the tiny pieces of particulate matter that contribute to Invercargill's poor air quality.

The new beta attenuation monitor, or the BAM as it is commonly known, has been installed at Invercargill's Pomona Street monitoring site and is designed to specifically measure $PM_{2.5}$ – particles much smaller than the currently measured PM_{10} .

Environment Southland air quality scientist Owen West says the new equipment uses the same method as the existing PM_{10} monitor, but only captures the smaller particles.

" $PM_{2.5}$ are recognised as a better indicator of the health effects of poor air quality, as it is these tiny particles that penetrate deeper into the lungs and are responsible for most adverse health outcomes," Owen says.

The National Environmental Standards for Air Quality (NES) are currently being reviewed and the review will look at whether the standards should be based around measurements of $PM_{2.5}$ instead of the current standards for PM_{10} .

Owen says installation of the new equipment is part of the strategy to monitor and improve air quality across Southland. Eventually new monitors will be installed at other sites in the region.



▲ Air quality scientist Owen West works on the new monitor installed at the Pomona Street site.

www.BreatheEasySouthland.co.nz

The harsh reality of bad air

When breathing isn't as easy as it looks.

Most of us take clean air for granted, but if you stop for a moment and think about the impact of polluted air on the health of everyday people, it can bring home the importance of doing everything we can to clean up our air.

Southland Hospital emergency department clinical director Dr Martin Watts says those people who are fit and healthy, with good lungs, do little more than smell bad air and don't think much of it. However, for those with asthma, chronic airway disease and other respiratory illness, he sees the effect it has on their lives every day.

"Air pollution is just another contributing factor for those who are already compromised, it can be the straw that breaks the camel's back for those who have asthma or COPD (chronic obstructive pulmonary disease)," Martin says.

Winter is a time when those with compromised health are already at higher risk, with colds and infections much more common. It's also a time when air quality is at its worst in some areas of Southland, particularly in Invercargill and Gore, where home heating accounts for a large proportion of the air pollution that creates a health risk.

Environment Southland monitors air quality and compares it against the health-based national air quality standards and guidelines. Monitoring is carried out at locations in Invercargill, Gore and Winton. The primary pollutant of concern in Southland is particulate matter smaller than 10 microns in diameter (PM_{10}). Increased concentrations of PM_{10} are associated with numerous health problems.

► Southland Hospital emergency department clinical director Dr Martin Watts sees first-hand the effects of poor air quality.

Martin says although it is difficult to attribute the winter increase in respiratory illness directly to air pollution, it's also impossible to ignore its effects.

He says the effects of second hand cigarette smoke are well documented and most people are well aware that breathing this causes lung cancers and most people do whatever they need to avoid the risks.

"If it's a smoky room you can always go outside, but when the outside is the problem where do you go?"



Getting ready for the BIG ONE

We know the Alpine Fault is likely to rupture in the lifetime of people alive today, potentially causing a major earthquake. But how prepared are we?

“Although each region works with its own communities, across borders we’re not as well prepared as we could be,” says Emergency Management Southland manager Angus McKay.

He’s the driver behind the two year Project AF8, which recently received \$245,000 of funding through the Resilience Fund, an annual grant administered by the Ministry of Civil Defence and Emergency Management.

The project will pull together civil defence groups and scientists from around the South Island to come up with a joint

response plan that would cater for a magnitude 8 earthquake in the event of the Alpine Fault rupturing.

Angus says an earthquake over magnitude eight can be expected to have a significant impact, damaging roads and bringing down power lines.

“On either side of the fault we’re probably looking at an eight metre movement of land sideways and a two metre vertical movement. It might be that all broadband stops because the fibre-optic cables are split.”

As chair of the AF8 steering group, he says it’s important a plan is put in place that encompasses the whole of the South Island.

By the end of the first year, a baseline will be established of what existing plans and resources are in place around the regions, what resources are available and how individual communities can mitigate their risks.

Another aim of the project is to bring together scientists from across the South Island, to come up with likely scenarios for a fault rupture to assess secondary impacts from things such as landslides and tsunamis.

By the end of the second year, a South Island response plan will be available, and Angus hopes that the project will eventually lead to an on-going steering group for combined civil defence scientific activity.

▼ The Alpine Fault runs along the spine of the South Island and last ruptured in 1717, producing 8 metres of horizontal movement and 1 to 2 metres of uplift along the fault, resulting in earthquakes with magnitudes of about 8.

The Alpine Fault has ruptured five times in the past 1100 years, each time producing an earthquake of around magnitude eight. These quakes occurred in approximately:

- 1717
- 1580
- 1400
- 1100
- 930

(Information courtesy GNS Science)





McCarthy Media

Business innovation and growth

▲ South Port chief executive and SoRDS New Industries Team leader Mark O'Connor.

Businesses rely on fast, efficient and safe transport of goods and South Port New Zealand Limited is helping them deliver.

The Bluff-based company is expanding from its port town surroundings with the opening of an innovative container handling centre in Invercargill.

The Intermodal Freight Centre, constructed on a previously vacant Mersey Street site, has direct access to KiwiRail's container transfer yard. It includes a 4000 square metre warehouse, a container wash facility, short-term storage, a customs controlled area and a Ministry for Primary Industries transitional facility.

South Port chief executive Mark O'Connor says the centre has many benefits including first-class, on-site environmental safeguards for goods coming into and going out of Southland, plus more efficient transportation of goods – ultimately allowing businesses to get products to markets faster.

“It's our first significant step outside of our traditional port gate. We're pretty excited to have a presence in Invercargill itself.”

The facility is a response in part to increases in imports and is a good example of the thinking that underpins the Southland Regional Development Strategy (SoRDS).

Mark leads the SoRDS New Industries Team, which is exploring opportunities for new and existing small industries to develop their potential.

He says the team's research and evaluation work supports establishing a significant aquaculture presence as one of the most logical ways to help grow Southland's population by 10,000 by 2025.

“If by 2020 there's some new employment opportunities, we'd expect some new people to roll in the gate by 2025.”

Growth in aquaculture would require significant industry support including marine-related services, maintenance work and additional port and cargo capacity, and would also spawn research and development, and tourism opportunities.

But first things first. Environmental considerations are paramount, so the science needs to be right, and Environment Southland was a key organisation in piecing together the aquaculture opportunity, says Mark.

SoRDS connection

Environment Southland has been involved with the Southland Regional Development Strategy (SoRDS) from the outset, providing both a region-wide and sustainable development perspective.

South Port connection

Environment Southland has a 66.48% majority shareholding in South Port and uses its dividends to reduce rate increases.

This investment dates back to the 1989 local government reorganisation when the council was vested with the majority of port company shares.

Updates



Never happens? Happens

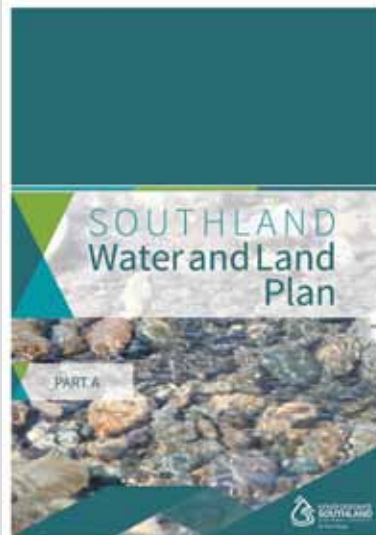
Making emergency preparedness real, relevant and easy is the goal of the new public education programme launched by the Ministry of Civil Defence & Emergency Management in August.

The 'Never happens? Happens' campaign includes a range of resources developed to empower Kiwis to take responsibility for their emergency preparedness.

Emergency Management Southland manager Angus McKay said the programme focuses on six likely effects of emergencies:

- no power
- no water
- no communication
- evacuation
- being stuck at home
- transport being cut off.

Visit the new website www.happens.nz and use the easy online planning tools to make preparations for getting you and your family through an emergency.

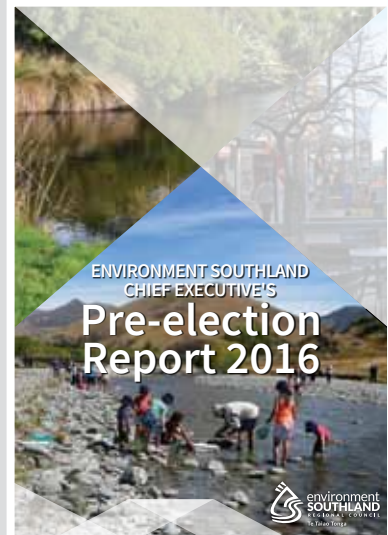


Proposed Southland Water and Land Plan

Submissions on the proposed Southland Water and Land Plan have now closed. We received over 800 submissions during the two month period.

Planning manager Anita Dawe said it was great to get so many submissions as it was important that everyone took to opportunity to have a say on the proposed plan.

The formal submission period was an opportunity to have a say on the makeup of the plan. A hearing is scheduled to take place next year when all submissions will be considered and final decisions made.



Local body elections

The triennial local body elections are held this year. Like all councils, Environment Southland is required to prepare a pre-election report. It lets Southlanders know how the council is doing and what challenges it faces to encourage debate. It is available on our website, from libraries, service centres and our office.

Environment Southland has 12 councillors who are elected from six constituencies across the region. Nominations for candidates opened in July and closed on 12 August.

Voting papers will be delivered to everyone on the electoral roll between 16–21 September.

Voting is by postal ballot, or you can drop off your voting papers before noon on 8 October at your local city or district council office. *Note, Environment Southland does not receive voting papers.*

Preliminary results will be out on Saturday 8 October 2016.

Time to think about...

SEPTEMBER 2016

▶ Outdoor burning

Burning outdoors is permitted in the Invercargill and Gore airsheds from 1 September until 30 April. Take care to abide by all fire rules and don't burn any chemically treated timber, synthetics including plastics, used oil or baleage wrap. Go to BreatheEasySouthland.co.nz for more information.

▶ Rooks

Keep an eye out for these pest birds and report sightings to our biosecurity team. You can check out a video and information on our website to help you clearly identify them.

▶ Rabbits

This is your last opportunity to target rabbits before the breeding season really gets underway. The more you can get now the less they can dig holes and eat your grass and veges.

▶ Gorse and broom

Our annual urban gorse and broom inspections are about to get underway. Land occupiers have obligations under the Regional Pest Management Strategy to deal with any gorse and broom on their properties.

OCTOBER 2016

▶ Mustelids, rats and cats

If you have native birds, chickens and ducklings on your property, it's essential to get good control of mustelids, cats and rats before they start preying on nests and vulnerable young. There are a variety of traps out there so give our biosecurity team a call for advice.

▶ Aquatic pests

With the weather improving and fishing season underway, more recreational users are hitting the waterways. If you are out in the water, take care when moving from one area to another to ensure you are not taking any aquatic pests with you. Make sure your gear is cleaned and dried every time.

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▶ Possums

These pests are hungry and at this time of year are very keen to enjoy your spring vegetable garden and the fresh growth on roses, willow, pine and poplar trees. Make sure your possum control plan is in place and working effectively.

▶ Gardening

If you are getting stuck into some spring gardening, it's a good time to look around and find out what pest plants you may have growing in your garden. Visit our website or give us a call to get a copy of our booklet *Plant Me Instead* which gives examples of pest plants and suggests suitable substitutes for them.

Down on the farm



By **Nathan Cruickshank** *Environment Southland senior land sustainability officer*

With the end of the winter grazing fast period approaching it is worth remembering that the three metre winter grazing rule is still in effect until the end of September. This effectively means all stock should be three metres back from water's edge while intensive winter grazing is occurring.

While some farmers will be finishing winter grazing for the season, others will be shortly starting to cultivate for next year's winter crops. I would like to draw farmers' attention to the proposed Southland Water and Land Plan and in particular the new rule around setbacks for cultivation.

The rule states where the slope next to a waterway is less than 4 degrees then a three metre setback for the plough line is required. For slopes of 4 to 16 degrees a setback of 10 metres is required, and slopes above 16 degrees require the plough line to be back 20 metres. Note, the setback is from the outer edge of any river, wetland, modified or artificial watercourse. By following these setbacks less valuable soil will be lost from paddocks.

September, October and November are also good months to check if riparian plantings need maintenance, as well as planting new areas for the coming growing season.

Out in the field

Our people are no strangers to extraordinary situations as they go about their work with the region's natural resources.



▲ Environmental technical officer Grace Smith changes air filters at the Glengarry monitoring station in Invercargill. The used dark filter on the left indicates heavy traces of PM_{10} , most of which is caused by emissions from home heating. The other is a clean replacement filter. Filters are changed every second day throughout the winter monitoring period from April to the end of August and then every six days during the rest of the year.



▲ Windsor Girl Guides, Brownies and Pippins planted 51 native plants along the Invercargill-Bluff estuary walkway with the help of staff from Environment Southland's Land and Water Services division.



▲ Hydrologist Phil McCartney checks the correct height of a water level gauge in the Mataura River. The gauges are checked to ensure water level data is accurately recorded by our monitoring equipment.