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Envirosouth

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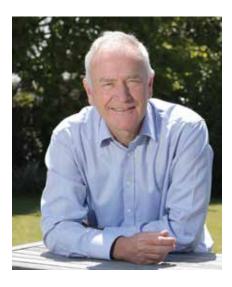
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Contact Us

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

Cover

■ Bluff 2024 project team member Gaylyn Potter hard at work in Bluff. See story page 3.



Improving water quality is our top priority and the Government is keen to see results quickly.

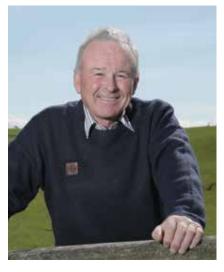
Recently the Minister for the Environment announced a range of measures to help achieve this. The announcement was light on details and while this is some cause for concern, Environment Southland appears to be well aligned to the Government's direction.

Our People, Water and Land programme of work, as well as developing regulations, will also roll out wide ranging engagement and on-the-ground action initiatives.

The proposed Southland Water and Land Plan is well advanced and all the work and community input that has gone into this plan means Southland is well placed to address issues of particular interest to the Minister, such as wintering.

We'll be getting alongside officials to ensure Southland's knowledge and work is recognised and utilised by the Government as it shapes up the details.

Rob Phillips, Chief Executive, Environment Southland



Recently we celebrated the work of some amazing environmental champions in our communities.

Environment Southland hosted the 23rd Southland Community Environment Awards in October and it was incredible to see and hear about the many projects underway throughout our province.

The calibre of nominees was very high, as it is year on year and it was incredibly tough on the judges to select the winners.

In total, there were 27 nominees and every one of them deserved recognition.

These people are our leaders. They're stepping up and helping to make Southland a better place for all of us.

Environmentally, our natural resources are under pressure – fresh water, air, land and coast – and it is going to take a collective responsibility and effort to change that.

Our nominees show us that it is possible to make a difference for the better and they inspire us all to do the same.

Nicol Horrell, Chairman, Environment Southland

Environment Southland



Southland Community Environment Awards 2018

The Southland Community Environment Awards were hosted by Environment Southland on Wednesday 24 October at the Ascot Park Hotel in Invercargill. The awards showcased valuable work being done by Southlanders to help improve our environment. Congratulations to all the amazing nominees and our very special winners.



▲ Members of the Bluff 2024 project team have undertaken some major projects, including beautification of the highway.

Councillors' special award

BLUFF 2024

small group with big ambitions is how the people behind the Bluff 2024 project have been described. The group of about 8-10 core volunteers, with a wider network of community supporters, have successfully tackled some large projects including the beautification of the highway coming into town, the new Bluff sign, the remodelling of Ocean Beach and Morrison's Beach carparks, and annual street clean-ups.

Bluff 2024's vision is to initiate projects and activities that enhance the appearance and vibe of the town, with guided input and community support. Judges were impressed with the efforts of the group to engage local people and businesses, encouraging them to take responsibility for their patch as part of the community to make positive change.

Award sponsored by environment SOUTHLAND

Project team member and Bluff local Tammi Topi says the group have been going for about four years and all the volunteers either live locally or have resided there recently. "We're small in numbers but big in heart, and we enjoy doing what we do because we love Bluff."



Russell and May Evans

Long service award

RUSSELL AND MAY EVANS

ooking back at nearly 30 years of caring for injured exotic and native birds, Otatara couple May and Russell Evans have a lot to be proud of.

Their tremendous knowledge of native birds has saved many of the 20 to 40 kereru, tui, bellbirds and kingfishers which are brought to their door at 'Bush Haven' each year. Birds from as far away as Dunedin have been rushed in to be nursed back to health and released from one of their four aviaries.

Russell and May's work with the Otatara Landcare Group, and in particular their involvement in the Pestbusters sub-group since 2010, has further helped the survival of native birds in the area. The pair are about to retire, but are still keen to see the re-introduction of kākāriki in Otatara, and have set up a trust in the hope that others will take over what they've started.



Kaitiaki tohu pai – Guardian award

WINI SOLOMON

n sharing her passion for Maori culture and heritage, Wini Solomon inspires generations of New Zealanders to make connections with each other through the craft of raranga (flax weaving).

Wini's skills, experience and desire to pass on knowledge through the generations has seen her teach raranga for over 40 years, 10 of which have been spent as Koako at Te Wananga o Aotearoa at SIT. This year, Wini will retire from formal teaching, but there is little chance this inspirational soul will ever put down the harakeke and stop teaching others.

Wini willingly shares the knowledge with others, as it's essential for future generations. "It's important for a lot of people to learn, and we don't worry who learns, it belongs to New Zealand. It's our culture," she says.

Wini's classes aren't just about learning raranga. She uses the art form to start conversations about the wider world. Awards judge and councillor Lyndal Ludlow says what struck her about Wini was her connection with the students. "The people learning from her gain not only some education, but a cultural experience and understanding every time."

Raranga

Raranga is a very old art, a plaiting technique done with just the fingers, which is still practised in many parts of the world. The first Pacific settlers – the ancestors of Māori – brought this technique to New Zealand. Raranga was originally used to make practical items for survival, like rope, fishing nets, and baskets.

Over time, it developed into a highly specialised art, and raranga artists began creating objects of great status. They even adapted the technique to make cloak





Environmental action in education

WINNER – MENZIES COLLEGE

hen the year 12 science class at Menzies College heard that the river near their school was identified as 'dead' by the New Zealand Freshwater Fishing Association, the students decided to embark on a project to find out whether this was true.

Since February 2018, they've led the work to catch and tag trout from the Mimihau River, and they are also hatching and growing brown trout to release back into the river.

They've received training and support from Fish & Game who also provided nets, breeding tanks and fish eggs. In return, the students' findings will feed into the fish database, providing a more accurate picture of the life in the waterway.

Throughout the project, the students were encouraged to make their own decisions and take responsibility for the results.







Menzies College students (from left): Joshua Reid, Kyle Gardyne, Kailey Yeoman, Arese Poliko and Sam Smith with science head of department Kit Hustler.

Environmental action in education

► COMMENDED – LUCY COOPER, IZZY BOWEN AND LARA LEITCH

ucy, Izzy and Lara have been making true bee-lievers out of their peers at James Hargest Junior College. As part of their term two inquiry, the girls focused on bees and decided to make and sell beeswax lunch wraps, to encourage sustainability in the school.

Around 70 teachers, classmates and family members have chosen to use the environmentally friendly packaging over plastic, and the girls were even able to turn a profit which they re-invested into bee research. The wraps are made of 100% cotton and beeswax, and break down naturally at the end of their useful life. The girls feel very strongly about bees and want do all they can to help the population grow, by encouraging people not to use sprays and showing them the amazing things bees can do.



▲ James Hargest Junior College students Lara Leitch, Lucy Cooper and Izzy Bowen.

Environmental action in education

COMMENDED – SHANE WILSON

hane Wilson teaches people of all ages how to protect native plants and birds by using proper techniques for trapping possums and rats.

Since its inception in December 2016, his not-for-profit company 'Trap and Train' has grown in numbers, with 17 members now actively trapping pests every day, and 591 people following their success stories on social media. The numbers speak for themselves; in 2017 alone Shane and his students trapped 4272 possums, 46 rats, 4 stoats and 19 rabbits.

Across the country, interest is growing in Shane's knowledge, from people who are just as inspired as him by forests alive with native birdsong. Shane takes the safety aspect of his work seriously, and keeps costs low by using home-made rat tunnel traps made from recycled materials. School and scout groups have benefitted

from his training, and Shane hopes that more people get on board to ensure our forests thrive.



Shane Wilson



▲ Kim Spencer-McDonald and Peter McDonald

Environmental leadership in farming and land management

WINNERS – PETER M^cDONALD AND KIM SPENCER-M^cDONALD

eter and Kim farm 669 hectares of hill country in the Caroline Valley, a property known as Gavenwood, with a strong focus on sustainability and consideration of the environment in all decision making. The property is steep tussock land, with 135 hectares in native podocarp forest and scrubland and a further 29 hectares in a QEII covenant. Peter has plans to covenant more and is constantly looking at ways to enhance and protect the native bush and waterways on the property.

Peter and Kim made the decision to move away from cattle grazing and transition to sheep, after recognising that this was the best decision from a land use perspective. They haven't looked back, although they acknowledge it has had some profit impacts. They believe this is offset by the value in future-proofing their farm and they are now thinking ahead to the challenges of mitigating the effects of a changing climate.

"We are looking to put in more stock shade and increasing our water holding capacity (stock and domestic), and moving towards regenerative farming methods in the future," Peter said.

The couple are actively involved in their local community, sharing knowledge and demonstrating a strong sense of social responsibility.



Environmental achievement

WINNER – PAUL DUFFY

aul Duffy has been involved with the South Catlins Charitable Trust for nine years, during which time he's dedicated hundreds of hours to working with others on the creation of the Tumu Toka Curioscape and the preservation and restoration of bush surrounding the small coastal town.

Paul's also been a driving force behind the necessary improvements of tourismrelated facilities in the area. He has been instrumental in the Trust's protection of their precious environment including the petrified forest and penguin habitat. He's passionate about Curio Bay, and keen to share knowledge about its history and local wildlife with visitors.

And he says his work isn't done just yet. Along with the other members of the Trust and local community, the plans continue to develop tracks, pest control and protect their precious part of the world for generations to come.





Paul Duffy



▲ The Forest Hill Foundation Trust trustees: back row - Agnes Irwin, Brad Gibson, Ken White, John Evans.
Front row - Malcolm MacKenzie, Jan Riddell and Glenys Dickson. Absent from photo: Wayne Findlater, Vince Leith and Sam Patel.

Environmental action in the community

WINNER – FOREST HILL FOUNDATION TRUST

ith a vision to remove all introduced mammalian pests and predators from Forest Hill, the Forest Hill Foundation Trust has faced an enormous challenge since their inception in 2005. The dedicated group of volunteers have already undertaken a huge amount of pest control and are seeing the benefits now, as the forest floor becomes more diverse and abundant, and the sound of birdsong increases.

The discovery of a rare species of weta present in the reserve and sightings of a number of bird species rarely seen elsewhere in the region are exciting signs of progress for the Trust, who have established a strong foundation and work plan.

With a long border fully surrounded by farmland, keeping pests out of the area is a challenge, but the group has worked with local landowners to develop a joint approach.

They've set their sights high, with the goal to establish a 3.8 kilometre predator fence around the perimeter of the Northern Block, which will provide a protected area to act as a nursery for precious indigenous flora and fauna.

Chairperson Glenys Dickson says one of the important factors in protecting an area such as Forest Hll is to provide a key point in a corridor that links some of the smaller forest remnants on the Southern Plains to the larger forested areas of Stewart Island, the Hokonui Hills and through to Fiordland.

The group also makes an effort to work with other organisations and groups to help build knowledge of the local ecosystem and provide educational opportunities for young people.



Environmental action in the community

COMMENDED - CATHY JORDAN

athy Jordan has set up a community garden at the Invercargill Plunket Clinic, to allow families to connect and learn together. As well as planting and harvesting vegetables, families learn about other ways of supporting their local environment with weekly activities like building natural bird feeders, and cooking with produce from the garden. The project has been incredibly well supported by the local business community and families in the area.

Community gardens play a significant role in the education of our communities, particularly migrant families and children. This education encompasses the entire process from learning how to grow and harvest your own food, to the benefits of healthy eating and sustainable waste management. Gardening can bring mental health benefits, and is a big step towards a resilient Invercargill.



Cathy Jordan

Environmental achievement

COMMENDED – RAEWYN VAN GOOL

hen Raewyn Van Gool and husband Tony purchased their 150 ha dairy farm in the Waituna area in 2001, locals wondered what might become of the remaining matai forest on the land. They needn't have worried - Raewyn's commitment to preserving the natural environment meant that this special area would remain intact.

She immediately appreciated the value of these trees, and placed the tall remnant podocarps and five hectares of native vegetation into QEII covenant. This area included wetlands too, which she has protected by adding extensive tussock and flaxes. Since acquiring the farm, Raewyn has helped promote the science and research that enables farmers to work better in catchment, which flows into the Waituna Lagoon.

She is a strong advocate for environmental leadership on dairy farms, has chaired the Southland Dairy Leaders' Advisory Group and has taken part in the Dairy Environment Leaders' Forum.

Raewyn is passionate about good community and farmer engagement in developing whole of catchment environment plans.



Raewyn van Gool



Jade Maguire

Individual environmental leadership or action

WINNER – JADE MAGUIRE

ade Maguire is a man with a passion for plants and people. Based at Te Takutai o te Tītī Marae in Colac Bay, he's started an initiative to provide an eco-learning space, with the aim to teach the community skills to recover our natural environment and improve their own health.

As part of his Te Whakaoraka initiative, he's built a native nursery where he works with the community to grow thousands of plants each year, which are then used in local restoration projects. He's also set up vegetable gardens to teach people how to grow their own food and be more self-sufficient.

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Throughout his work, Jade aims to pass the knowledge of his tīpuna on to future generations by teaching the traditional names and uses of native plants. The initiative is well supported, with schools and catchment groups on board, and local Rūnaka backing the efforts.

Individual environmental leadership or action

COMMENDED – ANNE MCDERMOTT

nne was among the first Fiordland Marine Guardians appointed by the Minster for the Environment under the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005. Anne has only this year stepped down after giving nearly 12 years' service to the Guardians, the community of Southland and New Zealand as a whole.

Anne brought a great deal to the Guardians table, including her significant Fiordland practical first-hand insight and experience as a keen recreational diver, fisher, boatie and tramper, accumulated over her 30-plus years of visiting and immersing herself in Fiordland. She is also well known for her undoubted passion for both protecting and sharing Fiordland's fisheries and underwater environment.

Anne has taken the lead over successive years in arranging and fronting he Fiordland Marine Guardians stand at the biannual Southland Boat Show, helping to impart the 'need to know' information to other recreational users of the FMA.

Anne continues to be involved in numerous other environmental projects in Southland. She is an active member of the Southland Tramping Club, contributing time to track maintenance and servicing trap lines in Southland (including Fiordland). She is also a trap line volunteer and statistician for the Bluff Hill Motupōhue Environment Trust.



▲ Anne McDermott



Awards judges Councillors David Stevens and Lyndal Ludlow and director of science and information Graham Sevicke-Jones. The judges spent four weeks visiting the 27 nominees, covering hundreds of kilometres and sustained by many cups of coffee. They were impressed by the enthusiasm and dedication of all the nominees who took the time to share their stories and projects.

Gore air monitoring gets an upgrade

Residents at Resthaven Village in Gore have tales to tell about changing air quality in the region and are now taking an avid interest in the upgraded monitoring equipment on the village site.



• Environmental technical officer Grace Smith shows Resthaven Village resident Sandy Turner the air quality monitoring equipment in Gore.

nvironment Southland environmental technical officer Grace Smith visited the residents to explain the changes to the air quality monitoring station which has been located on the grounds of the village since 2004.

Residents were keen to share stories of how poor quality affects their health, with several of those at the presentation suffering respiratory conditions.

Air quality scientist Owen West says the Gore site required expansion to fit a new piece of monitoring equipment which will allow the site to monitor smaller particle sizes – referred to as PM₂₅.

"We currently measure only $\rm PM_{10}$ (a larger particle, but still much finer than a human hair) and this new equipment will allow us to monitor $\rm PM_{2.5}$ and $\rm PM_{10}$ concurrently, which will assist with planning strategies to help improve our air quality."

Owen says the new monitor uses laser technology and Gore is the first of the monitoring sites in Southland to receive the upgrade.

"Eventually we will upgrade our other sites. We know it's important to measure PM_{25} as there is now a strong body of evidence that PM_{25} is the primary concern for our health."

The Resthaven residents enjoyed the opportunity to discover the secrets behind the space-like piece of equipment that sits in their backyard and, after a talk by Grace and a shared cuppa, they headed out for a close-up look at the equipment.

One thing is for certain – when Grace is carrying out her regular maintenance checks from now on, she's sure to have some avid observers and likely a number of afternoon tea offers.

Smart swimming equals a great summer

Getting out and enjoying our swimming spots is one of Southland newcomer Marti Trecakova's favourite pastimes.

arti moved to New Zealand in 2017 and works on a dairy farm just outside Invercargill. Originally from the Czech Republic, she is enjoying the region's wide open spaces and interesting places.

"Something I love about Southland is heading to the many rivers, lakes and beaches for swims. I can drive for five minutes or an hour if I want and find a great place – and the scenery is very pretty.

"It's a really similar temperature in Czech but we don't really swim in the rivers [there]. We had one huge lake everyone swam in Hlučín, called Štěrkovna but it wasn't very nice to swim in. The lakes I have seen here in Southland are lovely though."

Southland's popular swimming spots are tested over summer for their water quality, and you can see those results on a map on the Environment Southland website. Environment Southland science team leader Nick Ward says the map helps people to make a good choices about where to swim, as there is a risk of getting sick if the water quality isn't good.

"We test these sites for bacteria such as *E.coli* over summer which can make you unwell. These bacteria enter our waterways via human and animal waste."

A traffic light shows the health risk at a swimming spot at any particular time. If it's green, the risk of getting sick is low, if amber, it is increased, and if it is red there is a much higher chance of getting sick.

For Marti, the map is really helpful.

"So I can just use my phone to go to the map and check the water quality before I head out with my friends for a swim, it's nice and easy for me".

Nick adds that another important feature of the swimming map is that it will display an alert for any known toxic algae blooms. These algae are dangerous to dogs as well as humans and are more likely to happen in the warm weather, so it's important to check online, but also look out when you get to the river or lake too.

"The swimming map is a great resource, and it links to Environment Southland's SMART water quality tips which list everything you need to think about when going swimming," Nick says.



▲ Marti and Kip the kelpie at one of their favourite swimming spots, Riverton Rocks at Mitchells Bay.

Farmers leading the way in Aparima pilot project

Pride in their land and a vision for their communities is inspiring a group of Aparima farmers to drive positive change in the wide-ranging catchment.

he Aparima Community
Environment (ACE) project is
encouraging farmers in the area to
improve land management practices to
help build environmental and community
resilience.

The initiative encompasses six catchment groups – the upper, mid and lower Aparima, Waimatuku, Orepuki and Pourakino.

Colac Bay dairy farmer Ewen Mathieson says the intiative is opening up new opportunities for people in the area to engage with, and learn from each other.

"We've seen farmers take the lead in the establishment of these groups," he says.

"It's given us an opportunity to identify what actions need to be taken, and to take action." Pourakino Valley dairy farmer David Diprose says ACE aimed to build community support for actions to meet environmental challenges in the catchment.

"This is my space, I'm proud of it, and I want to make a difference. The community in my opinion are the ones who will make the change."

The challenges are diverse and complex, and require a fundamental shift to a different set of land management drivers, he says.

The ACE initiative has been underway since March 2018 and will be offically launched on 11 December, so keep an eye out for more information.

The next steps will be to identify priority actions and funding opportunities.

David says significant progress has been made in areas such as the Pourakino, and the challenge was to inspire and bring on board the wider Aparima communities – rural and urban.

In its early stages the project has been collaborative, with a lot of goodwill from all participants wanting to drive, measure and communicate positive change, he says.

"This is my space, I'm proud of it, and I want to make a difference. The community in my opinion are the ones who will make the change."

DAVID DIPROSE





▲ Environment Minister David Parker visited the Aparima group in September to learn more about the project.

Ewen says engagement and education are the key concepts as they take the concept out to a wider audience.

"Our urban cousins are also looking at forming groups, which is great."

Oraka-Aparima Runanga is on board with the intiative and its marae nursery is supplying trees for planting in the catchment.

Farmers are showing a willingness to be involved and an awareness around the need for land management changes, Ewen says.

"That bodes very, very well for our businesses going forward."

Working together will also help support and enhance the vibrancy of local

communities, which is another vital aspect of the ACE initiative, he says.

Ewen says no two farms are alike – and many have complex dynamics, such as his own farm, with multiple physiographic zones, soil types, rolling to steep land, five different types of stock, and 28 waterways.

Buffer zones for wintering stock, and more efficient fertiliser use are two examples of best practice land management.

"The actions needed are all invariably different."

At a briefing on the initiative in Otautau in September, Environment Minister David Parker said the ACE project was another example of Southland stepping up to tackle challenging water issues.

The farmers involved were showing leadership and others would be inspired to follow, he said.

Regulation was only part of the way forward, farmer-led initiatives such as ACE were important, he said.

Environment Southland chief executive Rob Phillips says agencies are standing shoulder to shoulder supporting the farmer-led initiative.

Agencies are on board in providing assistance around the likes of record-keeping, developing and implementing input modelling backed up by monitoring, stocktakes of current practice, and further developing shared understandings of the complex environment.





he monkey puzzle tree at Anderson Park – believed to be the largest of its variety in New Zealand – was planted in 1924, against the wishes of Lady Elizabeth Anderson who was not a fan of the prickly species.

Joyce Robins, great-granddaughter of Sir Robert and Lady Elizabeth Anderson, says according to their family history, Sir Robert told his wife it was unlikely to thrive, in part to placate her concerns.

Sir Robert was a very keen gardener and the monkey puzzle tree was one of many notable plantings around Southland that he had a hand in.

"I'm sure he would have been delighted to know the tree is now the largest in New Zealand," Joyce says.

The tree is one entry in the Southland Notable Trees and Historic Register, which was established by the Southland Regional Council in 1993, followed by a book compiled from the most interesting and significant stories.

"Most of them were exotic trees with a story, a seed brought back from somewhere, or something people had encountered on their travels," Environment Southland land sustainability officer Anastazia Raymond says.

Elsewhere among the surviving trees from the original list are four 118-year-old yew trees in St John's Cemetery in Waikiwi, Invercargill.

As with many other notable trees, these trees have significance and a story behind their planting – the four were planted to mark the death of an early Southland resident.

Yew trees were traditional plantings in early cemeteries. Other varieties stand as memorials to people who died in war, or mark significant locations in the region's early settler history.

About half of the trees in the book no longer exist for a variety of reasons.

◀ Left: Joyce Robins, great-granddaughter of Sir Robert and Lady Elizabeth Anderson with the monkey puzzle tree at Anderson Park.

Right: A copper beech planted in Invercargill's St John's Cemetery sometime during the 1880s ▶ Two of Invercargill's oldest trees – macrocarpas on the property once owned by surveyor John Turnbull Thomson – had to be felled in 2017 because they were at risk of falling on neighbouring houses.

Attrition through the likes of ageing and weathering, changes of land use, safety, shading are some of the reasons for the loss of notable trees in Southland.

For exotic trees, 100 years is a pretty good life, however some native species are hundreds of years old, and a few are thought to be older than that.

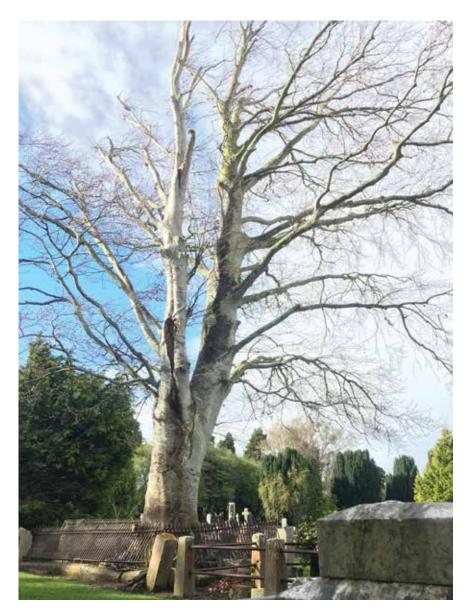
The Department of Conservation notes that some of Southland's oldest trees are 1000-year-old totara in the Dean Forest, near Tuatapere.

Of course, as well as enhancing and beautifying our region, trees also provide shelter and contribute to better biodiversity, habitats and stream health. Rather than continuing to update the local register Environment Southland is encouraging people interested in registering trees to submit them to the New Zealand Tree Register to ensure a lifelong record is kept and the information available to everybody. The register does not provide any protection for the trees or place restrictions on landowners.

New Zealand Tree Register manager Brad Cadwallader says the public register is an easily accessible tool for recording and profiling heritage trees.

"We would love for Southlanders to update their notable trees. We're very interested in trees and their history and associations with people."

People wishing to register trees or find out more about notable trees in the region can do so at: www.notabletrees.org.nz



Trust builds commu

Whether it's riding out a big dry or lending an ear during tough times, the Southland Rural Support Trust is on hand to help.

rust chair John Kennedy says the severe dry spell Southland experienced last summer gave everyone - rural and urban - a bit of a fright. And while rainfall levels in Southland have been encouraging this winter, we shouldn't be lulled into a false sense of security.

"I think the dry did focus the community on the issue, but my concern is people have extremely short memories. That's the biggest concern, that as soon as it rains people think it's okay."

Stress associated with the drought was one of several health-related issues being says.

There are welfare issues "across the board" coming to the trust's attention, which indicate people are reaching out at an earlier stage – something farmers are being encouraged to do.

John says the trust is well supported and assisted by the Southland community and through initiatives such as Farmstrong and Fit for Farming.

The Five Ways to Wellbeing (encouraging being connected with others; taking notice of the simple things; giving your time, words and presence to others; keeping learning; and keeping physically active) campaign is helping to get important messages out into the rural community.

It's important for farmers to try and get off their farms to socialise with friends whenever possible - and there are regular events organised around the region to encourage this, he says.

At the beginning of the drought in January 2018, the Trust brought together industry leaders, councils and Emergency Management Southland to gain a clear picture of the existing dry conditions, the

effect they were having on the rural sector, and the outlook for the future.

John says that reporting from Environment Southland, especially around the exceptionally low groundwater situation, helped this committee form a plan to inform the rural community on ways to deal with and mitigate the effects of the drought on their businesses.

Environment Southland director of science and information Graham Sevicke-Jones says it highlighted that people needed to be thinking ahead and planning for every

Environment Southland encourages people to be aware of their consent conditions, ensure they have adequate water storage, well maintained bores, and enough feed for stock.

picked up by the trust in Southland, he Southland Rural Support Trust chair John Kennedy encourages Southlanders to plan ahead for water shortages, and to reach out when they need someone to talk to. To contact the Rural Support Trust, freephone 0800 787 254 (0800 RURAL HELP)

nity resilience

What happens when water levels get low?

Environment Southland is always conscious of a potential water shortage. We have alerting systems in place and a procedure to increase monitoring of resources and consents according to the severity of the situation. Below are the different stages of a water shortage.

STATUS 1

Normal water use

- Regular monitoring of water resources
- Regular compliance monitoring of consents
- Forecasting of possible water shortage

STATUS 2

Alerting

- Increased monitoring of water resources
- Increased engagement with major water users
- Establish internal group that regularly assesses the situation
- Provide advance notice to resource consent holders with consent restrictions

STATUS 3

Serious

- Pull together a wider group including councils, major water users, industry leaders, Rural Support Trust and Emergency Management Southland
- Promote water conservation with the wider public
- Provide likely timeframe of additional water use restrictions
- Increased engagement with consent holders that are required to limit their use of water resources

STATUS 4

In drought

 In extreme case, issue direction to temporarily stop water takes or contaminant discharges

Updates

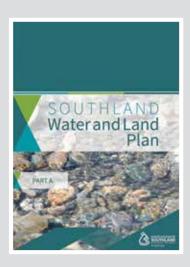


Science symposium

The last four years of science conducted by Environment Southland was shared at the Environment Southland Science Symposium in September.

Environment Southland director of science and information Graham Sevicke-Jones says, "We are very proud of the work that has been completed in the last four years, and this event was a great way to share some of the results from key projects."

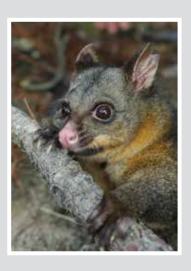
Videos and posters, as well as all of Environment Southland's science reports from the last four years are now available on the website, www.es.govt.nz/science-symposium18.



Plan appeals

The proposed Southland Water and Land Plan appeal process is continuing with mediation. The Court indicated that they intend to deal with the appeals in two sections; Topic A will cover high-level matters and the Plan's objectives and be dealt with first; then Topic B will follow and focus on the more detailed rules and other provisions.

Two Judges (Hassan and Borthwick) will preside over proceedings for Topic A which will ensure that subsequent hearings can be dealt with more quickly. All appeal documents are available on the Environment Southland website. It's unknown how long mediation will take but it is expected to continue into 2019.



Pest plan

Approximately 120 submissions were received on the proposal for a Southland Regional Pest Management Plan, with a large proportion focused on the proposed site-led programme for Omaui and rules relating to domestic cats.

The proposals were released in September, with submissions closing on 23 October. The next stage in the process is to hold a hearing, which is scheduled for early 2019. This is an opportunity for those submitters who have chosen to, to address a hearing panel in person and outline their submission.



HEY SOUTHLANDER

Environment Southland and Te Ao Marama are keen to hear about how you use and value water. We're working on a project to improve Southland's water – and need your input. We'll be out and about at events and local supermarkets in the next few months, but you can also enter online now.

Go to www.haveyoursay.es.govt.nz, tell us more and go in the draw to win a Real Journeys Experience! Entries close 31 March 2019.

Time to think about...

POTATO WART – If you're pulling up your spuds for Christmas lunch, keep an eye out for potato wart, a nasty looking fungus which turns potatoes to mush. It's important to contact us if you suspect you have potato wart in your crop, as it needs to be dealt with correctly to avoid jeopardising our lucrative commercial potato industry.

CHECK, CLEAN, DRY – Lots of us will be out enjoying Southland's rivers and lakes this summer, so remember to Check, Clean and Dry all your fishing and boating equipment to ensure you don't spread any unwanted freshwater pests.

NODDING THISTLE – This time of year nodding thistle is flowering and should be targeted for control. If you've got nodding thistle on your property, you should destroy all plants before they begin seeding.



CULTIVATION – At this time, people are thinking about getting a start on next year's crop. Keep in mind buffer zone requirements which vary according to slope; the steeper the slope the wider the buffer. Remember to cultivate on the contour and don't cultivate surface soil too finely. This helps prevent erosion under heavy rainfall conditions. Make sure to identify and avoid critical source areas.

聞 JANUARY 2019

MUSTELIDS (FERRETS AND STOATS) -

These pests have just been through their annual spring/summer breeding season. They're a deadly menace to other wildlife, so now is a good time to set some traps around duck ponds, chicken coops, streams and bush areas.

RAGWORT – At this time of year ragwort plants which have made it through to flowering should be targeted for control. Remember, all ragwort within 50 metres of a boundary must be destroyed before seeding.

SILAGE – If you're starting to make silage up, make sure your cut grass is properly wilted beforehand. This will considerably reduce liquid leaching from the silage stack. Stacks need to be 50 metres from any waterways, wetlands or potable water. Silage should not be stored on land that can become wet from springs, seepage, high water tables, or stormwater run-off.

FEBRUARY 2019

FIREWOOD – Summer is perfect for thinking about future firewood supplies. Get it in now and store it correctly to ensure it is less than 25% moisture content when it is time to burn it. Stack it in a crisscross pattern to allow for airflow between the wood to dry it effectively. Go to www. BreatheEasySouthland.co.nz for a list of Good Wood suppliers.

FARM PLANS – Get in touch with your land sustainability officer for advice around good management practices and farm management plans.

Down on the farm



By NATHAN CRUICKSHANK, Environment Principal land sustainability officer

Many farmers will have already started their cultivation work, so it is worth thinking about some good management practices that can reduce the risk of significant soil loss on cultivated paddocks. Some points to consider are:

- Maintaining a minimum 5-metre riparian buffer from waterways
- Avoiding cultivating critical source areas and sloping ground
- Cultivating on the contour where possible
- Avoiding a fine seedbed as during heavy rainfall events, large amounts of soil can be lost to overland flow
- Don't cultivate within the bed of a waterway

Silage making is happening all over the province at present. Some handy rules to keep in mind include:

- Silage pits must be at least 50 metres away from a surface water body or potable water abstraction point, and 100 metres from a dwelling
- No discharge of silage leachate can be within 20 metres of a surface water body or natural wetland, or 100 metres of a dwelling
- Place your silage cover so stormwater runs off the cover and away from the silage pit.

For detailed information on any of these topics visit our website.

Out in the field



• Marine science leader Nick Ward showing Enviroschools students a sea tulip they have found while taking part in Marine Metre Squared at Toetoes Estuary. This was part of the Mataura Coastal Connections event.



Biosecurity officer Rachel Batley works on removing the pest plant Darwin's barberry at Bushy Point.



^ Maritime officer Ian Coard rewards Rob Bishop and his son Liam (8) with some sunscreen and drink bottles for demonstrating safe boating behaviour in Manapouri over Labour Weekend. Young Liam and his dad were out taking part in the annual Stabicraft fishing competition, wearing well-fitted lifejackets and carrying two forms of communication



Fiordland College former deputy head boy Thomas Lundman and biodiversity programme leader Mark Oster check out a seed capture device during the college's Enviroschools' green-gold reflection day.

