

Environment Southland News

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Environment Southland



environment
SOUTHLAND

Te Taiao Tonga

In the air tonight ...

When Phil Collins sang “I can feel it coming in the air tonight” he wasn’t thinking about pollution, but what’s in the air for Southland will have to be a big reduction in the amount of smoke coming out of household chimneys.

This winter, our monitoring has confirmed that the national air quality standards were breached more often in both Invercargill and Gore than in any year since monitoring began, and the pollution levels were also the worst on record. That’s bad news for asthmatics, the elderly and infants, and anyone with chronic health problems. But people need to recognise they need to take some responsibility for their own health in the meantime while we are working to improve air quality and choose when they participate in outdoor activities.

The main culprits are home fires, often burning coal and damp wood, and particularly in older homes. Cold, calm weather makes the problem more obvious because the smoke hangs in the air – a

windy winter can give us a false sense of security that air quality is better than it really is.

You’ll find more details on page 4 about why this is a problem and what we’re doing about it. In short, though, time is running out because the Government has set standards and deadlines for improving air quality that we have to meet by 2016.

We’re moving on several fronts, from education and encouragement to stronger policy and some new rules. Environment Southland already supports the Warm Homes Trust with targeted grants to help ease the cost of replacing open fires and non-compliant multi-fuel burners with clean methods of home heating. We have just recruited an air quality scientist who will direct our monitoring programme and our planning team have begun revising the Regional Air Quality Plan for Southland.

The Gore District Council recently discussed the results of the winter air quality monitoring – pollution levels



Chairman Ali Timms

breached the national standards. Several times from May to August and the air quality was frequently poor – and Mayor Tracy Hicks called on Environment Southland to “take the lead” in ensuring air quality standards are met.

We’re doing just that, but both Gore District and the Invercargill City Council have their parts to play and we expect to work closely with them.

Ali Timms
Chairman
Eastern-Dome Constituency
Ph (03) 248 7222

New Chief Executive for Environment Southland

Rob Phillips joined Environment Southland as our new Chief Executive last month. Rob was previously Director of Operations at the Taranaki Regional Council and before that worked at Environment Canterbury.

Since he arrived in Southland, Rob has been meeting a wide range of people from the organisations and agencies that Environment Southland deals with, and coming to terms with the issues that the Council is grappling with.



Rob Phillips, new Chief Executive of Environment Southland (centre) with Chairman Ali Timms and Michael Skerrett, Kaupapa Taiao Manager for Te Ao Mārama Inc, after Rob was welcomed onto the Murihiku Marae in August.

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Cover picture: New Environment Southland CEO, Rob Phillips and Michael Skerrett, Kaupapa Taiao Manager for Te Ao Mārama Inc .

Exercise SHAKEOUT

Any tranquillity at Lochiel School on 26 September will be shattered when the bell echoes through the classrooms declaring that an earthquake has struck.

The school is taking part in the country's largest earthquake drill, New Zealand ShakeOut at 9.26am on 26 September, to ensure its pupils know exactly what to do should the real thing happen.

Principal Tim Page says his pupils are already well versed in what to do in a fire and he thought ShakeOut was the ideal opportunity to extend their preparedness to include a natural disaster.

And Mr Page is going to great lengths to try to add a sense of realism to the drill.

"The bell will sound in bursts every two seconds and they will be encouraged to Drop, Cover and Hold."

The plan is also to have representatives from the fire service and St John Ambulance to be involved, he says. "We want to make it almost like the real thing."

But the kids don't yet know what's in store for them. In fact mum's the word, with only a handful of the 56 pupils at the school knowing that anything is going to happen at all.

The select group charged with keeping the secret are the school's Enviro-Heroes who have all pledged not to tell a soul.

Some of the pupils already have the key messages stored in their memory banks.

There's a chorus of "always be prepared and stay calm", from the group.

Ten-year-old Christina Sixtus says her knowledge was tested when she experienced an earthquake in Christchurch while visiting her aunt and uncle.

"I just got under the table and waited for it to stop. I stayed pretty calm," she says.

She thinks ShakeOut is a great idea because it gives kids experience about what to do in an emergency.

Six-year-old Claire Montgomery also knows exactly what action to take. "Drop, Cover and Hold!"

Once the drill is over and the pupils return to class, the Enviro-Heroes will lead the discussion about what should and shouldn't be done in an earthquake and other emergencies.



Councillors Neville Cook and Jan Riddell practice the Drop, Cover and Hold technique in preparation for the ShakeOut earthquake drill on 26 September.



About 40 Southland schools are taking part in ShakeOut and Emergency Management Southland Advisor Craig Sinclair applauds Lochiel School for taking the opportunity to put their own spin on the exercise in such an inventive way.

But Craig says ShakeOut is not only for schools. Everyone can get involved.

In fact throughout the region almost 16,000 people had registered as of early September – surpassing the goal of 10,000 with almost a month to go.

The exercise presents an opportunity for families to develop or review their household plans and establish meeting points and how they will communicate if they are separated during a natural disaster, he says.

It also provides the perfect chance for organisations and businesses to scrutinise their emergency preparedness arrangements and continuity plans, he says.

"Businesses also need to think about how prepared staff are. They need to ask themselves what will happen if staff can't make it to work, or what will happen if they can't get home."

Craig says it's not too late to register for ShakeOut by visiting www.shakeout.govt.nz

"It will only take a few minutes of your time, it won't cost you anything and it could give you the tools to help protect you and family."

Spoiler alert – to all Lochiel School pupils' parents – please don't let your children see this until after 26 September.



Claire Montgomery, aged 6, Christina Sixtus, 10, Katrina Waters, 6, Emergency Management Southland Advisor Craig Sinclair, Leon Ridd, 7, Josh Wilson, 12, and Molly Collett, 9 practice Drop, Cover and Hold ahead of ShakeOut on 26 September.

Clearing the air

Air quality has been particularly poor in the south this winter and something must change to clear the air and meet looming national environmental standards.

Environment Southland continuously monitors air quality in Invercargill and Gore, checking for compliance with air quality standards imposed by the Government-standards that will come with a bite during the next eight years.

New requirements are being phased in for heavily polluted areas, known as air sheds, with Invercargill's target set at one exceedance per year by 2020. Gore has to comply by 2016.

There's plenty of work to be done to meet those obligations with Invercargill recording 24 exceedances of the 50 microgram of PM₁₀ per cubic metre of air (µg/m³) limit to date this year. Gore's data are still being checked, but weekly monitoring suggests the standard was breached about 10 times this year.

Environmental Information Manager John Prince says achieving the requirements will be no easy feat but it's not an optional task. Public health is at stake.

PM₁₀ are tiny particles about one millionth of a metre in diameter, which can all too easily be inhaled and absorbed into the lungs. This can have significant health effects, especially for the elderly and infants, people with respiratory ailments and other chronic disorders like heart disease.

So the reasons for the air quality standards are easy to understand, but lifting Southland's performance to achieve the desired result will be difficult.

More than 90 per cent of PM₁₀ emissions in the Southland airsheds come from solid fuel home heating appliances. Studies have shown that 19 per cent of Invercargill households burn coal and they contribute 55 per cent of the city's PM₁₀ load, while 67 per cent of PM₁₀ in Gore comes from the 34 per cent of people who burn coal there.

Adding to the predicament is that Southland is in an unhappy relationship with our climate – when it's cold and people light fires to keep warm, the air also tends to be still.

"2016 isn't that far away so we need to start making progress," John cautions.

There's a bundle of changes that need to be made, ranging from policy to human behaviour, and they're on a scale that some people will find daunting. Based on modelling, Invercargill will need to reduce its PM₁₀ levels by 47 per cent and Gore by 38 per cent to be within the limits.

"Behaviour and education is a big part of the solution but that needs to be backed up by policy with some teeth to rein the PM₁₀ levels in."

Environment Southland is currently revising its Air Quality Plan, which at 13 years old, isn't equipped to stimulate any real progress. "Keep watching this space for more information about changes to improve air quality in Southland because a lot will be required to meet the targets."

Environment Southland is also working with the Invercargill, Southland and Gore Councils to thrash out a collaborative and feasible strategy, which will require the redirection of resources – an ongoing process, John says.

"We also need to investigate different approaches to encourage people to change heating methods as well as targeting hotspots like South Invercargill, where some of the worst air quality is recorded."

Introducing rules to phase out higher polluting and less efficient heating sources and replacing them with cleaner technology is one option.

John acknowledges that getting people to accept the need to change will be difficult especially when it affects their personal choices about how to keep a home warm.

Subsidies are available through the Energy Efficiency and Conservation Authority and the Southland Warm Homes Trust but John says even with that assistance there will still be personal impacts on households. "If you're not burning fuel you're using electricity or gas."

Every option requires cost, which for some, including landlords, may be a stretch of finances and of will, he says.

But if people don't change willingly, change could be made mandatory.

Because of this year's poor results, people living in both the Invercargill and Gore airsheds will face a ban on new household open fires next year. The new measures have yet to be publicly notified but are likely to apply from June 2013.

This does not affect pre-existing open fires but it signals a move towards cleaner heating, he says.

"Cleaner technology" did not necessarily mean all solid fuel burners would be outlawed but they would have to meet the emission standards.

Environment Southland is tasked with leading the improvement in air quality, but change must come from within the community.

"If we don't meet the standards the Government will come looking for answers to why we haven't, and that could impact all of us."

Businesses buying into pollution prevention



Environment Southland Pollution Prevention Officer, Jarred Martin

Environment Southland's Pollution Prevention team has been door-knocking to spread the gospel of the importance of environmental performance to Invercargill businesses.

Pollution Prevention Officer Jarred Martin has been approaching businesses near the Otepunu Stream during the past few weeks to introduce them to the idea of guarding against any pollution problems – before they happen.

Several parts of Invercargill have been identified as having a cluster of high-risk activities like engineering, wreckers and other industries, as well as recording an increased share of environmental incidents.

They are the kinds of businesses Jarred is calling on. "But the point is not an on-the-spot inspection, it's to give businesses context about what Environment Southland is trying to achieve and how they fit into that picture," he explains.

SIMS Pacific Metals has made a major effort to prevent pollutants from its operation from reaching the Otepunu Stream via stormwater drains or run-off from its yard.

The part he hopes businesses will be keen to play is cutting back or eliminating the contaminants that could find their way into the environment from their premises.

"Whether that's chemicals going into a stormwater drain or burning plastic, they are all avoidable and they can all have an effect."

Jarred says he's had a good response so far. "A lot of pollution issues come from people who don't know what to do with

their trade waste. If you provide them with a solution, it should alleviate those problems."

Several businesses have asked to have an environmental risk assessment of their site. "It's really pleasing to see. There seems to be a real desire to make improvements, they just need to be pointed in the right direction."

Meeting business owners was proving to be a good "ice-breaker" to let them know the Pollution Prevention team was there to offer help.

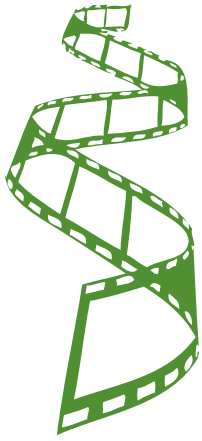
"Some people believe they only see anyone from Environment Southland when they're in trouble, but the purpose of these visits is to present new ideas and include them in the task of improving the environment."

And Jarred says once all of the industries in the Otepunu catchment have been ticked-off his list, he will move on to other at-risk areas of the city.

But if you're keen to see what Pollution Prevention initiatives can do for your business, you don't have to wait for a visit from a member of the team. Just call Environment Southland on (03) 2115115 or 0800 76 88 45.

The Wastenet website (www.wastenet.org.nz) is also a good resource to help people decide "what to do with it, when you're done with it", Jarred says.





THE GREEN SCREEN

ENVIRONMENTAL SHORT FILM AWARDS

Elementary my dear Watson...

Ask Liam van Eeden, Jean-Martin Fabre and Jack Baird how to make an award-winning movie, and they might just tell you that it's "elementary".

The trio won first place in the secondary schools section of this year's Green Screen Environmental Short Film Awards with a witty spoof called "Sherlock Holmes and the Case of the Contaminated Water". Filmed by Jack, the movie sees Jean-Martin as the famous detective and Liam as his sidekick, Dr Watson, investigating why people had become sick after swimming in the Oreti River.

Last year the three friends won the primary school's section of the Green Screen Awards with "Twisted Smoke", a modern take on "A Christmas Carol" which highlighted the causes of poor air quality in Invercargill.

With the \$1000 prize money from "Twisted Smoke", they bought an iPad which they used to film this year's Sherlock Holmes drama.

Making an award-winning film can't be done over a weekend, Liam says. After the concept was agreed they researched their topic, and then worked out how to present it. "At first

we thought of the scenes and drew up a picture of what would happen in each scene, then we split it up and wrote the script."

Gathering the props and scouting locations took time, and filming had to be scheduled for the rare occasions when all three friends were free. Some of the scenes were shot in a science lab at Verdon College and the rest at Liam's home, while a friend of a friend kindly allowed them to film the back view of one of his cows.

The film took about three weeks to make, with the first cut of each scene being done on the iPad. "We knew that the quality on the iPad would be quite good, and you could get quite good effects, and it was easier because we didn't have to transfer it to the computer," Jean-Martin says.

Being two-time winners of the Green Screen Awards has inspired the friends to enter other film contests. They're currently re-editing "Sherlock Holmes and the Case of the Contaminated Water" with a view to entering it into The Outlook for Someday, a nationwide environmental film competition. And don't be surprised to find them defending their Green Screen title in 2013 either.



Cr Marion Miller presents Jean-Martin Fabre, Jack Baird and Liam van Eeden with the award for winning first place in the secondary schools section of this year's Green Screen Environmental Short Film Awards.



Here are the young film-makers' top tips for others considering making a movie.

- Start thinking about your subject and your plot well in advance. Accept that "it's not going to happen in one weekend."
- If your brilliant ideas don't look so good once you've filmed a scene, be flexible and change what you're doing.
- Make sure that you have all the props ready.
- Don't put your hand over the microphone.
- Keep the camera still – use a tripod or at least rest the camera on a steady surface.

And a final word from Jean-Martin: "It's hard making a film but give it a go, then you can learn from it."

A term of learning leads to film success

An integrated approach and really good timing led to Woodlands Full Primary School's Room 1 entering the Green Screen Environmental Short Film Awards this year.

Their teacher, Heidi Wilcox, had been keen to do a film module with the students, and when they heard that a riparian planting day had been organised, the class decided to film the action.

Heidi believes there's no point entering something like the Green Screen competition if you can't integrate the learning, so that's exactly what they did. For over a term, all of the class' reading was about riparian planting. At the

planting day they learned how to plant a tree correctly and they brought in experts to teach them the aspects of filmmaking they needed to know more about. The class learned everything from animation and green screening to how to work with the iMovie software, the programme on the iMac they used to film and edit the movie.

Everyone in the class had a role, and the key positions were won by audition for by voting. The students began by writing scripts and planning the filming by creating storyboards.

Director/Producer Shea Smith was voted into his job, and he said the best thing about making the movie was "putting it all together and seeing it finished".

Samantha Britton was responsible for the animation of 'Mr Beech', the school beech tree, who speaks of the benefits of riparian planting in the film. Mr Beech was animated using a series of still shots and moving the mouth. For Samantha, learning how to do it was a challenge, but creating the animation sequence was the best part.

Claudia Baird and Rebekah Crean both won their roles through a tough audition process. As the two main presenters in the film, they said they enjoyed acting but they found learning the scripts off by heart was difficult. They admit that some scenes needed 20 "takes" to get right, and they now joke that their next project could be a bloopers reel.

All the students agreed the wind was a biggest technical challenge when they were filming. Working with the equipment that they had, choosing the right days to film was crucial to getting good sound quality.

On the night of the awards, the students felt a few nerves and a lot of excitement. Watching some of the other entries, they

said there were a lot of good ideas and were relieved to see that other entrants had struggled with the wind as well.

Heidi says the cash prize of \$1000 has already been spent, with the students choosing to purchase another iPad, a class set of sports balls and some scooter boards.



Director Shea Smith, animator Samantha Britton, and actors Claudia Baird and Rebekah Crean pose with their trophy in front of 'Mr Beech', the school beech tree and key member of the Tremendous Trees cast.

The Green Screen Environmental Short Film Awards are organised by Environment Southland with sponsorship and support from Fonterra, Cue TV and The Edge.

You can see both Tremendous Trees and Sherlock Holmes on Environment Southland's youtube page, www.youtube.com/enviromentsouthland.

Water and

Meet the Steering



NICOL HORRELL

As Chair of the Water and Land 2020 Steering Group, my main role is to listen to the concerns raised by members of the group and to work with our staff to try and address them. I also ensure that the Council is kept up to date with the Steering Group progress.

While this process is separate to the council's decision making, the recommendations from the Steering Group process are likely to have a significant influence on the council's decisions especially if we can reach broad agreements on the key issues.

In order to meet our goal of a 10% improvement in water quality by 2020, we need community support for any changes in policy and best practice needed to be successful.



ANDREW MORRISON

Do we have water quality issues in Southland? If so, who do you want involved in discussions about managing the framework to overcome them?

My sheep, beef and deer farm adjoins a river. My involvement with Federated Farmers gives me insight into how other regional councils handle these issues; and I'm a Director of a fertilizer co-op whose Primary Growth Partnership aims to develop technology to better manage nutrients;

Simplistically, farmers see that water quality relates to nutrients and sediment, their input levels /loss and how that occurs. I'm involved to help reach solutions that actually deliver better water quality while allowing farmers to innovate and grow. I hope the community has the same goals for our waterways and I endorse the group approach.



DYLAN DITCHFIELD

I've been aware of policies and rules being developed by Environment Southland with little farmer input, so I was keen to join the Water and Land Steering Group and provide a practical perspective.

Sheree and I have been developing our hill country block, so our experiences (good and bad) were very relevant to the first focus activity. It's been valuable being part of the process, particularly hearing from the different stakeholders. Learning about their values and responsibilities has been enlightening and I'm humbled that they're listening to my perspective and see mutual respect developing. I'd like to see the dialogue and relationship-building continue and extend to the wider farming community. Farmers can be part of the solution by being involved in the process.

WATER AND

Water and Land 2020 is Environment Southland's response to the Government's National Policy Statement on Freshwater, and to the objectives set out in our Regional Water Plan. The Council wants to work with farmers to identify good practices for farming activities so that they can be managed more effectively to decrease the loss of nutrients and sediment to water.

We have set up a Steering Group to help achieve the project aims. Its members include iwi, conservation groups, industry and farmers who will provide feedback on actions to improve land practice and develop recommendations to the Council.

- Separate projects are underway as part of the Discharge Plan project to work through how we manage other land-based discharges such as those from industry or associated with urban areas. We encourage everyone to work towards the common goal of maintaining or improving water quality in Southland.
- The first part of Water and Land 2020 identifies five focus activities (hill country

Land 2020

Steering Group...

LAND 2020

development, nutrient management, wintering, riparian management and overland flow).

- The aim is to identify good practice for each focus activity, and then develop a response that combines advice, with filling gaps in our policy framework.
- Established science around losses of nutrient and sediment from particular farming activities will be used to inform the process.
- The second part of Water and Land 2020 is the 'catchment response'. This is our response to the National Policy Statement for Freshwater Management. The NPS sets out a process of identifying a list of catchments, setting quality and quantity limits, then allocating to those limits.
- Please talk to Councillors, Steering Group members or Environment Southland staff to find out more.
- There's more information on the Environment Southland website, www.es.govt.nz. Look for Water and Land 2020 on the home page. You can register for email updates to keep you up to date.
- Watch for information in *The Southland Times* and farming papers.

JACOB SMYTH

Southland is blessed with some of the best trout fishing in the country. These fisheries require sufficient water of good quality to remain excellent. Research shows that freshwater quality is one of New Zealanders' greatest conservation concerns, and Southlanders are no different.

The Water Plan process established the Southland Community's expectations around minimum water quality standards and an objective of a 10% improvement by 2020. However, monitoring is showing cause for concern and that the 10% improvement objective is unlikely to be met. Water and Land 2020 represents an opportunity for interested parties, including Fish & Game, to discuss and address the effects of intensive rural land use on surface water quality to meet the standards and improvement expected by the Southland Community.

KEN MURRAY

I'm Ken Murray from the Department of Conservation, perched beneath a rather large tussock. These large tussocks trap moisture in the mist, providing water to sustain rivers like the Waikaia, above Freshford, during droughts. Tussock grasslands also reduce soil erosion and flood peaks as they absorb heavy rainfall and snow melt.

DOC is concerned about the cumulative effects of activities on water quality. Southland has very significant water resources, including Lakes Te Anau and Manapouri, which are important for recreation and also provide water for their communities.

Our rivers and estuaries have extremely high aquatic ecosystem values such as whitebait, eel and kanakana fisheries and migratory birds. These all depend on good water quality. These are some the reasons why DOC is involved in Water and Land 2020.

MICHAEL SKERRETT

Te Ao Mārama plays a crucial role in providing iwi input into the Water and Land 2020 project. Freshwater is extremely important for tangata whenua; we have the responsibility of Kaitiakitanga (guardianship by the tangata whenua of an area and resources) and improving water quality is a critical link in maintaining our cultural traditions.

Cultural use of water is holistic and must consider ki uta ki tai/ mountains to the sea, meaning upstream effects in our river catchments influence the life supporting capacity of our estuarine systems and the waters of our seaward coastal environment. Our involvement in the Steering Group will help facilitate this understanding for the benefit of future generations.



Water and Land 2020

Focus Activity – Hill Country Development

Hill country development is the first focus activity to be advanced under Water and Land 2020.

Across Southland, hill country development has increased in recent years due to changing economic circumstances for sheep, beef, dairy and dairy support operations, and new technology and equipment. It's become

economically viable to replace relatively extensive areas of native grasses and oversown tussock with high producing permanent pasture to lift both animal production and carrying capacity.

Hill country development needs to be undertaken in a way that is consistent with accepted good practice, to avoid a range of environmental effects including impacts on water quality, water quantity, erosion control, biodiversity and visual amenity.

The Steering Group is working towards a common goal, to ensure that hill country development is properly planned to minimise adverse environmental effects, in particular soil loss and its resulting impact on water quality.

Since December, the Steering Group has met four times to discuss environmental, cultural and economic issues.

These include considering the type of development, current advice available, compliance issues, examples of good practice and policy options.

Steering Group members are telling Environment Southland that any policy response needs to be adaptable to be site/farm specific while providing certainty, flexibility and management of risk. Our staff are working on ways we could achieve this.

The Steering Group received a scientific report that outlined the environmental effects of hill country development, clarifying the links between development and water quality and quantity in particular.

Substantial work has also been undertaken on Good Management Practices covering vegetation clearance, cultivation, tracks and fence lines, stream works, stock water, drainage and wetlands, grazing management, managing staff and contractors. These will be widely publicised when they are completed.

You can find out more about the whole Water and Land 2020 project on our website www.es.govt.nz/publications/plans/water-and-land-2020



Here's an example of good hill country development where good management practices have been implemented. Buffers have been retained around the gullies as cultivation has occurred.

Fast Facts...

Nutrient Loss

- Studies show that about 25% of the total nitrate from a dairy farm can leach into groundwater.
- Sheep farms lose a little less than half the amount of nitrates that leach from dairy farms. Including the wintering platform changes this figure depending on the soil type. This is why nutrient budgets are really important to help manage nitrate losses.
- Phosphorus moves differently, so typically about half of it will move overland through direct deposition on a dairy or sheep farm. This amount can be reduced significantly with well-managed riparian margins.

If you're interested, you can find more details in "Land Use and Land Management Risks to Water Quality in Southland," a report by AgResearch.

Monitoring Results

Scientific monitoring tells us that:

- Nutrient levels exceed national guidelines.
- Levels of nitrate nitrogen are continuing to worsen
- Phosphorus is either improving or holding its own.
- Clarity (used as a measure of sediment) is good at most upland sites, and below standard at many lowland sites.
- Across our region's aquifers there elevated nitrate concentrations (called "nitrogen hotspots") in localised areas, and increasing trends at about one third of the sites we monitor.
- These nutrients, bacteria and particularly sediment from each catchment are being deposited in our estuaries and coastal lagoons and in some places this is compromising the health of the estuaries' ecosystems.

If you're interested, you can find more details in "Managing Cumulative Effects of Land Use Activities on Water Quality in Southland," a report by MWH prepared for Environment Southland in 2011.

Stop the Spread...

A prickly problem

They're a prick of a problem, in more ways than one, and Environment Southland's programme to sweep broom and gorse from Southland's urban areas is underway for another year.

Biosecurity Officer Steven Henry says gorse and broom are notorious as an eyesore and are associated with unkempt land. As a result, they are designated a suppression plant within urban areas in the Regional Pest Management Strategy for Southland.

The aim of the designation is to suppress them to a level that minimises their economic, environmental, social and cultural impact.

He says in urban areas the impact is largely regarded as social, as the sight of them can make people's blood boil. But they also have a physical impact because they can damage fences, seed on to other properties, create a fire risk and harbour vermin.

Tackling gorse and broom

- Simply cutting broom or gorse at the stem won't kill the plants, they will re-sprout prolifically if the stem is cut anywhere near the root. You need to put herbicide on the stumps straight away.
- Cut the trunks of larger mature plants close to the ground, taking care to avoid spreading seed pods.
- Large areas of slashed stumps can be left to grow up to 0.5m high and then sprayed with herbicide.
- In rural areas, gorse and broom must be cleared completely within 10m of boundaries and any open drain or watercourse.

The Council's urban programme operates in 23 towns across Southland with the explicit aim of clearing them of the pest plants. Landowners with gorse or broom on their property are obliged to destroy them.

"The responsibility for clearing the plants rests entirely with the property owner," Steven says.

The programme has been in progress for several years and while the worst hotspots have been cleared the inspections continue to keep on top of reinfestations.

Inspections are usually done from the roadside, but staff have authority to enter and inspect a property if required. When they spot problems, they write to the landholder requesting that the plants be destroyed within a specified time. If a landowner doesn't comply then arrangements can be made for the plants to be removed at the owner's costs.

So if you've got gorse and broom growing in your garden, now is a good time to deal with it.

Potato wart – yuck!

Potato wart was first discovered in Invercargill in the 70's and the soil-borne fungus can only really be spotted when it's too late – when you dig up spuds plastered in pulpy warts that resemble a scene from a horror movie.

There were two outbreaks in South Invercargill last summer.

The best way to prevent this unsightly disease sprouting in your garden is:

- Plant certified seed potatoes, which are guaranteed to be free of potato wart.
- Before using machinery, footwear or garden tools on someone else's property, give them a wash first and again afterwards.
- Don't plant or share saved seed potatoes.
- If you're sharing or swapping other plants, clean them before you hand them over.
- If you suspect your spuds have potato wart, get in touch with Environment Southland without delay by calling (03) 211 5115 or 0800 76 88 45.
- Potato wart can survive for a long time in the soil, so if you discover it in your patch, seek help right away.
- When there's an outbreak, the soil has to be fumigated to kill the fungus.
- Some older varieties including Red King are more susceptible to infection but more modern potatoes are resistant to the fungus.
- The disease will appear on all parts of the potato that are underground, except the roots, and in its earlier stages will have white pulp warts that grow darker over time.

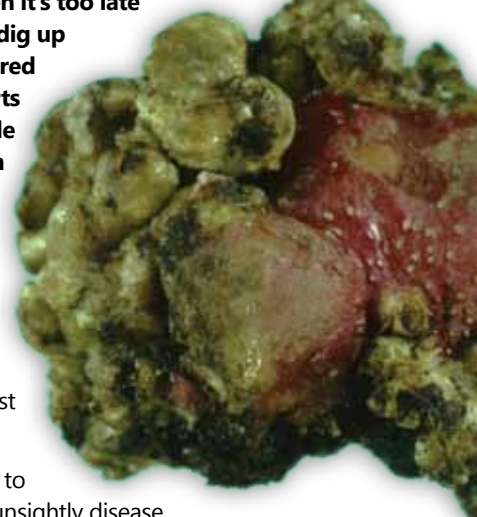


Photo: Mark Braithwaite



Highlights from Waituna

The name Waituna Lagoon has become so well known that it's almost hard to believe that it's just 19 months since its threatened condition made it a household name in Southland.

Environment Southland has been leading the inter-agency response to prevent the Waituna Lagoon from 'flipping' since February 2011. So much work is being done in the catchment not only by Environment Southland staff and councillors, but also by our partners, including the Department of Conservation, DairyNZ, Fonterra and local Iwi, and especially by the landowners in the catchment.

The Waituna Lagoon is part of the internationally recognised Awarua wetlands. The Lagoon is one of the best remaining examples of a natural coastal lagoon in New Zealand and is unique in Southland and New Zealand. It is highly significant to Ngāi Tahu, fishermen, hunters and the people who live and work in the catchment.

We will continue to update you on project milestones in EnviroSouth regularly, but if you would like a more complete picture of the work being done in the catchment, visit our website for all the latest news and updates. Simply go to www.es.govt.nz and search Waituna.

Monitoring platform now providing real-time data

The new monitoring platform installed in the lagoon during May and June is providing real-time data on conductivity, dissolved oxygen levels, water level, temperature, and water temperature.

This information is being displayed in the Rivers and Rainfall section of the website. Click through to the parameter you want to see from the menu on the left. Go to www.es.govt.nz/rivers-and-rainfall

LEARNZ field trip

Students from across the country have had the chance to visit the Waituna Lagoon without ever leaving their classroom.

The LEARNZ interactive online field trip took place earlier this month and linked classes from across New Zealand for three days, learning everything about the lagoon from what makes it unique to the threats to its ecosystem, and what's being done to stop its decline.

Teachers could register for free and as part of the field trip their classrooms could see what was happening at the lagoon, hear from experts on a range of topics, ask questions via teleconference, and hook into a whole range of support resources.

The trip also covered lagoon plant and wildlife, and the significance of Waituna to Maori and generations of people who have enjoyed fishing, boating, walking, and bird spotting there.

Film clips and resources from the trip will soon be available for anyone to download from the Environment Southland website, www.es.govt.nz.

LEARNZ is part of the "Learning Experiences Outside the Classroom" programme run by the Ministry of Education.



Students from Gorge Road Primary School took part in the online Waituna Lagoon field trip, and have been working in and around the lagoon with the Waituna Landcare Group, DOC and Environment Southland.

Slick response to oily issues

Picture this... a boat has sunk in Fiordland. Oil and diesel are reported to be leaking. Exactly what role does Environment Southland play?

The Council has a trained and experienced team equipped for precisely that eventuality.

Regional On-Scene Commander Dallas Bradley heads the team of about 30 staff he can call on to assist.

It's a difficult job, with 3,500km of coastline to keep tabs on, much of it remote and bordering national parks and sensitive conservation land.

"So much goes into oil spill response planning," Dallas says. "There's getting people and equipment to the site for a start and once they're there they need food, shelter and basic services to help them stay there."

Working from accurate information is critical, because invariably there's a certain amount of confusion and misinformation at the beginning of any response.

"We need to know where the boat is, what it is, where any oil is coming from and if it's still leaking or how long that could go on for."

If reports are sketchy, Dallas will task someone to fly over the scene and make a trained assessment of the situation. "Sometimes there are no better eyes than your own."

Once a clear picture has been established the true response can be generated.

For smaller incidents, especially involving diesel that evaporates quite quickly, spills could be left to disperse by themselves if the conditions are right.

At the other end of the scale, Maritime New Zealand could become involved. The highest level of national response is a Tier 3 incident, last seen in the south when the Tai Ping grounded in Bluff Harbour in 2002 and before that when the Dong Won 529 hit rocks off Stewart Island in 1998.

For small scale spills, Dallas has everything he needs in Southland. There are booms to create a barrier, skimmers that remove oil from the water's surface, sorbents to soak up the oil and dispersants to break it up.

The equipment belongs to Maritime New Zealand and stored at Bluff so it can be quickly moved to wherever it's needed.

"The equipment does have its limitations. It's quite effective in a harbour situation but not so good in open sea conditions."

The oil response team is largely drawn from Environment Southland and Port Maintenance from Bluff, with assistance from other agencies. DOC, an oiled wildlife specialist from SIT and iwi all contribute.

The team is well-drilled with an experienced core including five members of Maritime NZ's National Response Team. Many of the Southland team also got valuable experience in the Rena response off Tauranga last year.

"Having the right people can make all the difference in high-pressure situations."

The actual spill scenario will dictate the number and make-up of the team he calls together.

"How is wildlife affected? How much fuel is on board? What are the iwi and community concerns? These factors all go into deciding who is needed."

The skipper of the vessel is one of the key people involved in a marine oil spill. "We need to liaise with them as early as possible to get them to do as much as

they can to prevent any further spillage, contain what has spilled and help clean up."

But sometimes the crew is in no position to help and the oil spill response team gets the job done. And sometimes oil spills don't involve boats at all.

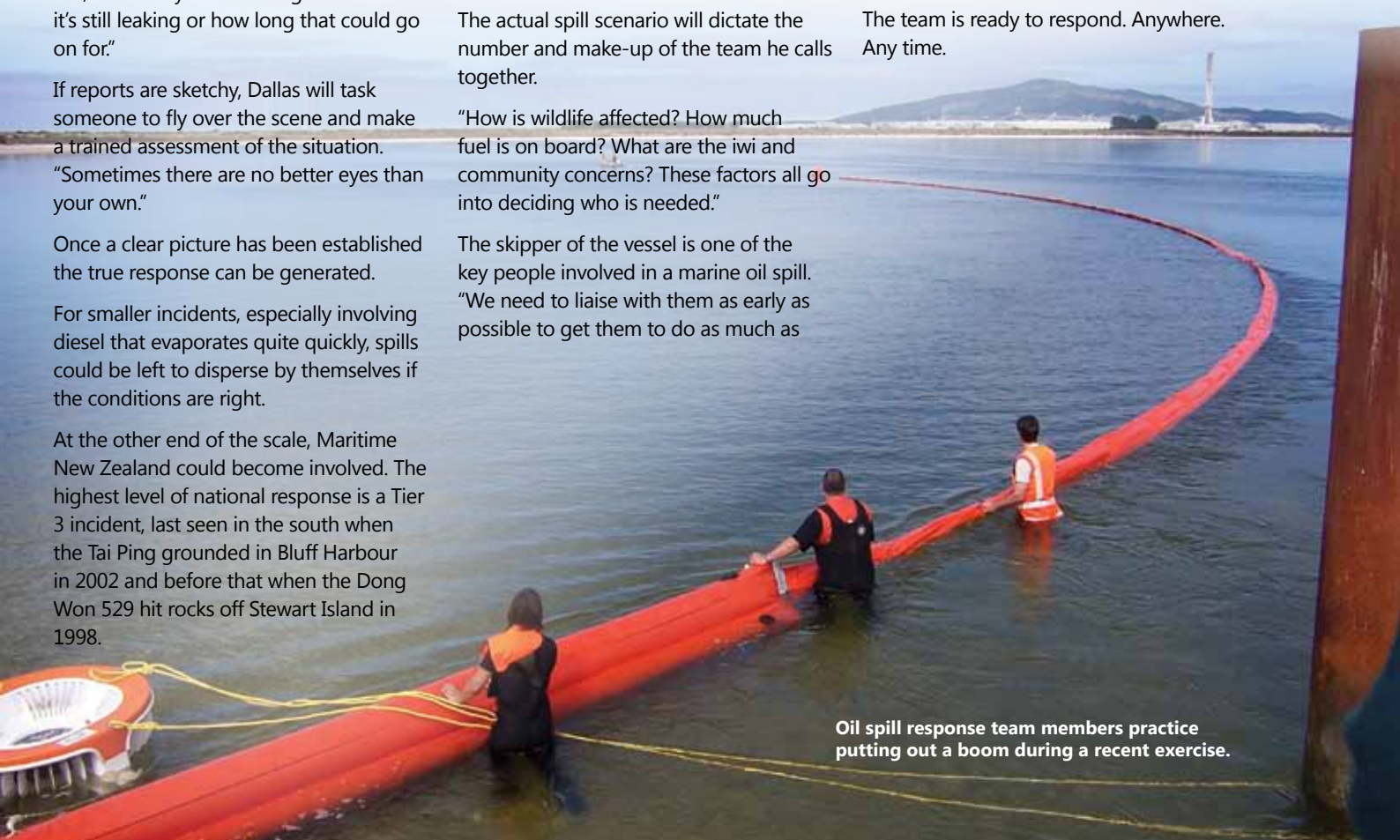
Bluff is one of the hotspots for the team and demands a disproportionately high number of responses for "nuisance spills", Dallas says. "People need to be careful when they're refuelling boats or pumping bilge not to spill fuel or oil into the water. A little bit goes a long way."

The Southland oil spill response team is usually activated between 12 to 20 times a year, and there are usually an average of two sinkings annually. Sometimes those situations go beyond a spill response alone.

When a vessel has sunk and people are missing or lives are known to have been lost, the depth of the situation changes completely.

"In those situations a fuel spill seems insignificant. But we still have a job to do."

The team is ready to respond. Anywhere. Any time.



Oil spill response team members practice putting out a boom during a recent exercise.

Compliance Monitoring Report

The performance of Southland consent holders will be available for all to see in the 2011/2012 Compliance Monitoring Report that will be released next month.

The report outlines compliance with resource consents across a range of activities carried out in the south extending from gravel extraction, farming and industry.

Council Compliance Manager Mark Hunter says there has been a marked decrease in the amount of non-

compliance recorded across all consent types found during inspections.

He says the non-compliance levels have dropped back to those that were seen in 2009/2010 which he hoped was a sign that the community were getting to grips with what is being required.

“The Council has also shown that it is prepared to take enforcement action if it’s necessary, which has generated a more cooperative approach and there has also been more involvement from industry to help lead the changes in behaviour.”

Another factor that may have influenced the improved result could be the warmer and drier weather in the south during the past year.

Mark says farmers were faced with ideal conditions for effluent irrigation with soil moisture levels being so low. “It’s been a good year but it’s up to everyone involved to ensure the positive results continue.”

This year’s report has been streamlined version with the aim of simplifying the material but still including all of the essential information.

Be safe on the water

With winter behind us, many boaties will be anticipating the first outing on the lakes or sea over Labour Weekend. Southland harbourmaster Kevin O’Sullivan says it’s a really good time to check that that your gear complies with the Navigation Safety Bylaws.

Lif jackets

If you’re the skipper of a boat under 6m in length, it’s your responsibility to make sure that everyone on board wears a

lifejacket the whole time you’re on the water. Check you have the right sizes and type of jacket for your passengers.

If you’re not the skipper but you’re out in a boat, take personal responsibility for your own safety and others around you – set a good example and put on your lifejacket.

Boats that are over 6m in length must carry a lifejacket for every person on board. If you’re the skipper, make sure that your passengers put on their lifejacket any time there’s an increased risk to their safety.

Identification

All craft must have an identifying mark on the side. This could be the boat’s name, your trailer registration number or VHF callsign – anything that enables other people to identify your boat.

Communications

All boats less than 6m in length must carry at least two means of communication, in case of trouble. Choices include: VHF radio, flares, cellphone (depending on whether you’re going to be in range) and an emergency locator beacon. Cellphones need to be in a waterproof case – a ziplock plastic bag will do fine.

If you’re boating in southern waters, you can expect to see our harbourmaster and his team on patrol this summer. They’re also running an education programme in several Southland schools, teaching children about the importance of lifejackets and safe behaviour in and around boats.

You can find more information about safe boating at www.es.govt.nz



Enviroschools hui

Forty students from several of Southland's Enviroschools gathered at the Te Rau Aroha Marae, Bluff, earlier this month for the annual Enviroschools hui. The theme for the day was "resilience" – learning how to deal with setbacks and bounce back afterwards.

Photos, clockwise from right: Jessica Williams (left) and Iona Brimecombe from Mararoa School.

Drop, cover, hold – when these students found the Emergency Management Southland earthquake simulator moving beneath their feet, they knew just what to do.

Gathered and ready to learn: participants in the 2012 Southland Enviroschools Hui.

Stan, the Civil Defence and Emergency Management mascot, got a demonstration of the right way to behave in an earthquake from students attending the Southland Enviroschools hui. Emergency Management Southland brought their earthquake simulator to the hui as part of preparations for Exercise ShakeOut.

Outdoor educator Mark Oster teaches students from Lumsden and Otama Schools a simple way of measuring height and distance, as they learned how to fend for themselves in the outdoors. It was one of the activities students took part in at the hui.



bnz ^{☆☆☆} Invercargill Summer Walks Series 2012-13

If you're fed up with autumn ambling or winter wandering, fear not – the Invercargill Summer Walks Series is just a few spring strolls away.

The series that offers walks along the Invercargill floodbank network and other notable locations around the city is set to start a new season on 2 October.

Sports Southland Community Volunteer Programme Manager Matt Sillars says the Summer Walks Series is going from strength to strength with about a 50 per cent increase in participation in last summer's walks boosting numbers up to about 1200 people.

Matt attributes the increase largely to word of mouth and a developing core of walkers who attend every week. "There's a real sense of camaraderie among the group, it's great to see."

He says he'd like to think the popularity of the walks will continue to grow as they become even better known. "It's a great way to see parts of the region that some people might not have seen before. It's also a great way to meet people and make new friends," he says.

The walks are held every Tuesday from 2 October and there are two options to choose from; at 10am and at 6.30pm so you can get out and about after work. The duration of each walk ranges from 45 minutes to 1 hour and 30 minutes but the average is about an hour at typical walking pace.

Download a calendar of the walks in this year's series from www.es.govt.nz or pick up a brochure with all the dates and walks from Sport Southland, the BNZ and Environment Southland.



Envirosouth

Envirosouth is published four times a year by Environment Southland. It is delivered to every household in the region. We welcome your comments on anything published in this newsletter, as well as your suggestions for topics you would like to read about in future issues.

The next Envirosouth will be published in December 2012.

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