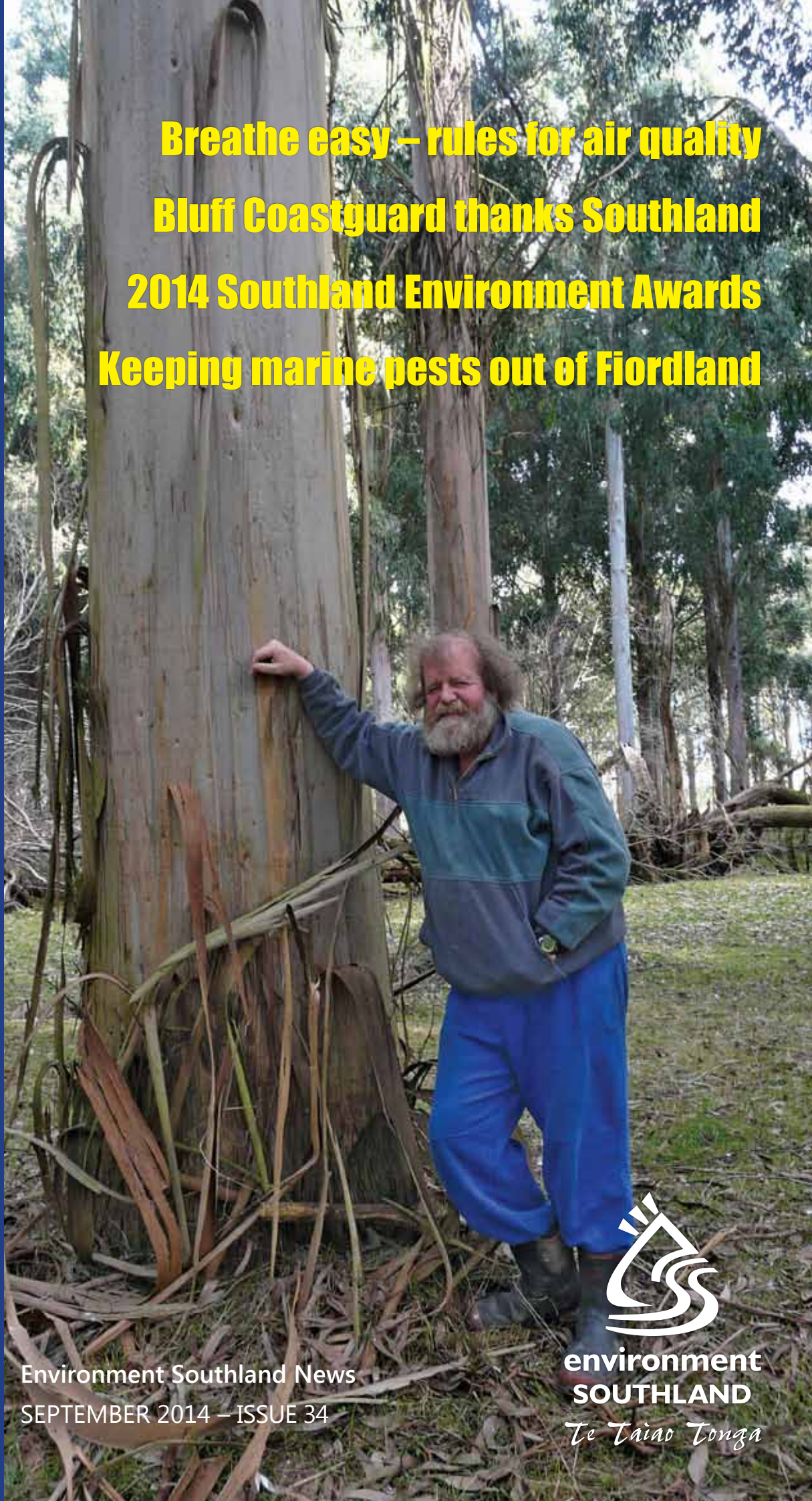


Environment Southland

Breathe easy – rules for air quality
Bluff Coastguard thanks Southland
2014 Southland Environment Awards
Keeping marine pests out of Fiordland



Environment Southland News
SEPTEMBER 2014 – ISSUE 34


environment
SOUTHLAND
Te Taiao Tonga

New air quality rules a game changer

Having clean air to breathe is essential to good health. Sadly, the quality of air in Invercargill and Gore is often compromised during winter and some people suffer because of it. PM₁₀ is the pollutant of concern and more than 90% of the human-caused PM₁₀ comes out of home chimneys. The Council notified proposed rules on 6 September to lead the change that's needed to improve Southland's air quality.

Regional councils are required by the Government to take action in the urban areas that are failing to meet the goals of the National Environmental Standards for Air Quality (NES). National regulations stipulate deadlines for meeting the PM₁₀ standards. In Gore they need to have no more than one exceedance by 1 September 2016. In Invercargill they must have no more than 3 exceedances by 1 September 2016, and no more than one by 2020. However, Invercargill and Gore both regularly exceed these standards.

It won't be easy for everyone to make the changes set out in the proposed rules, but Environment Southland is looking at what the options are for supporting those who need it. This includes working with our fellow Southland Councils, government and other organisations, as we have done throughout this planning process. We've also staggered the introduction of some of the proposed rules to give people time to make the necessary changes to their home heating systems.

Many of the proposed rules specifically affect properties within the boundaries of the Invercargill and Gore airsheds. This includes banning the use of open fires from 1 September 2015, and the phasing out of non-approved burners through until 2029. It's also important to know that some of the proposed rules for the airsheds came into effect immediately on 6 September. For example, the requirement to install only NES approved burners when putting in a new burner or replacing an existing one, as well as restrictions on outdoor burning during winter. Check out www.BreatheEasySouthland.co.nz for maps showing airshed boundaries.

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Other proposed rules that came into effect on 6 September include certain restrictions on outdoor burning for all of Southland, and on the application of some fertilisers and agrichemicals. Most of these are around best practice, being considerate to your neighbours and in most cases will mean business as usual. Also, farmers will no longer be able to burn agrichemical containers and plastics, including baleage wrap. Recycling is a viable alternative option.

We're not the first council to introduce rules to improve air quality, in fact, we're one of the last to



Ali Timms – Chairman,
Environment Southland

propose rules. But air quality monitoring over the past five years in Invercargill and Gore in particular, show that it's not getting any better and the Government has set deadlines for us to act.

Aside from the proposed rules, there's a wealth of information about how you can make a difference to help improve air quality on www.BreatheEasySouthland.co.nz and via www.es.govt.nz.

As people become familiar with the proposed rules and consider their options for change, Environment Southland will be taking an education-first approach. In concert with other South Island regional councils we will be lobbying central government about the particular issues we jointly face in implementing the NES, such as poor housing stock, and our cold and calm winters. It's important that people stay warm; I don't want anyone substituting the health risks of air pollution for the health risks resulting from living in cold and damp houses.

The proposed rules took effect from 6 September, but it's important to remember that you have until 3 November to make a submission to the Council about any aspect of them. We welcome your views.

Cover

'Man of the trees' Graham Milligan and his wife Heather were the winners of the Innovator Award at the 2014 Southland Environment Awards.



One *step* closer to Bluff

The Invercargill-Bluff walkway and cycle trail construction is a breeze, thanks largely to the enthusiasm of the Hoogeveen family.

Together, Jack and sons James and Brendon Hoogeveen farm a herd of 480 dairy cows between the New River Estuary and the Bluff Highway. It's a tranquil and peaceful place with views across the estuary and marshlands.

At the moment, their property looks less like a farm and more like a building site. But they're not bothered by a 20-tonne digger and stockpiles of gravel that are being used to build the 6.5 km walkway and cycle trail.

"That's all part of the progress isn't it," says James. "If you want to make things better for the long term, there's a bit of a mess in the short term."

James says his father Jack was in total support when Environment Southland asked for permission to build the walkway on his farmland three years ago, even if

that meant extra work for him. "Dad and Brendon had to set our fencing back quite a bit, and Dad has also dealt with the legal side of things," says James.

In return for permission to build the walkway on the Hoogeveen property, the Invercargill City Council offered to close road reserves to the estuary on their land, which had split

the farm's legal titles. Environment Southland transport policy analyst and project manager Russell Hawkes says the deal is a win-win.

"In exchange for closing the road titles we are able to construct a walkway and cycle trail, which will

make this beautiful part of Southland more accessible to the public. Everyone gets something out of this project, and that's the way it should be."

Russell says dealing with the Hoogeveens has been great. "They were happy to help right from the word go, and have even shifted some of their farming operations to allow the contractors better access."

The stretch of the trail that's currently under construction will connect the existing trail near Clifton to Kekenoo Place at Awarua. It generally follows the estuary's tide banks and includes the construction of two new bridges over Duck Creek and the Mokotua Stream.

Work for the \$450,000 project is on schedule and Russell is confident the walkway construction will meet its November deadline. "We're looking at an opening ceremony before Christmas."

This section of the Invercargill-Bluff walkway and cycle trail is jointly funded by the Te Araroa Trails Trust, the Community Trust of Southland, the ILT Foundation, Environment Southland and the Invercargill City Council.

James Hoogeveen alongside the construction of the Invercargill-Bluff walkway and cycle trail.



Breathe Easy...

Proposed rules – home heating & outdoor burning

The review of the *Regional Air Quality Plan for Southland* has reached an important milestone with the notification of proposed rules on 6 September 2014. The proposed rules update the previous air plan, which is being reviewed to reflect the community's health values, the region's air quality issues and the Government's National Environmental Standards for Air Quality (NES). Some of the proposed rules affect all of Southland, while others affect only the Invercargill and Gore airsheds. We would like your feedback – make a submission and have your say!

Have your say

You have until 5pm on 3 November 2014 to have your say and contribute to the review process. Put in a submission online, via email, fax or by post.

Online: www.es.govt.nz
Email: service@es.govt.nz
Fax: 03 211 5252
Post: Private Bag 90116
Invercargill 9840

Invercargill and Gore airsheds only

Some of the proposed rules address air quality issues in Invercargill and Gore by focusing on what burners you can use for home heating and restrictions for outdoor burning in winter.

Home heating – burners

From **6 September 2014**, a NES approved burner is required when installing a new burner or replacing an existing burner or fireplace. Open fires and non-approved burners/boilers are being phased out of use:

From
6 Sept
2014

EFFECTIVE FROM	PROPOSED RULE
1 September 2015	The use of open fires is prohibited.
1 January 2016	The use of any non-approved burner/boiler installed before 1 January 2001 is prohibited.
1 January 2021	The use of any non-approved burner/boiler installed between 1 January 2001 and 1 September 2005 is prohibited.
1 January 2025	The use of any non-approved burner/boiler installed between 1 September 2005 and 1 January 2010 is prohibited.
1 January 2029	The use of any non-approved burner/boiler installed from 1 January 2010 is prohibited.

Note: You will still be able to use gas fires, pellet fires and diesel burners.

Outdoor burning – winter

From **1 May 2015** you will no longer be able to burn outdoors in the Invercargill and Gore airsheds during winter (1 May to 31 August). Leisure activities such as barbecues, braziers, hangi and fireworks are exempt from this rule.

From
1 May
2015

What is a NES approved burner?

A NES approved burner is a home wood burner that meets the National Environmental Standards for emissions and thermal efficiency. See the Ministry for the Environment website for a list of approved burners: www.mfe.govt.nz/laws/standards/woodburners/authorised-woodburners.html

(Note: there are currently no NES approved multi-fuel or coal burners, only wood burners.)

For more details about the proposed rules and their conditions see



ALL of Southland

Proposed rules for all Southland residents cover what you can burn for home heating and outdoor burning.

Fuels for home heating

FROM 6 SEPTEMBER – 31 DECEMBER 2014

6 Sept
– 31 Dec
2014

YOU CAN BURN	YOU CAN'T BURN
All wood that's not chemically treated or coated	Chemically treated timber, such as fence posts and some building materials
All types of coal	Painted and varnished timber
	Household rubbish and plastics
	Waste oil

Not sure if you can burn it?

Download a detailed list of prohibited fuels for home heating and outdoor burning from www.BreatheEasySouthland.co.nz.

FROM 1 JANUARY 2015

From
1 January
2015

YOU CAN BURN	YOU CAN'T BURN
Dry wood – e.g. wood that's been drying for approximately 9-12 months and stored/stacked correctly	Wet wood – e.g. wood that has been drying for less than 9 months and/or stored incorrectly
Low sulphur content coal – talk to your coal supplier for advice	Coal with a high sulphur content – talk to your coal supplier for advice
	Chemically treated timber, such as fence posts and some building materials
	Painted and varnished timber
	Household rubbish and plastics
	Waste oil

Stubble and offal burning

Stubble burning by crop farmers and the outdoor burning of animal carcasses and offal are permitted activities in rural areas.

However, there are certain conditions that must be met to ensure your neighbours aren't affected by offensive smoke or odour.

Refer to the *Proposed Regional Air Plan 2014* for more information about conditions on our website: www.es.govt.nz

Outdoor burning

FROM 6 SEPTEMBER 2014

From
6 Sept
2014

YOU CAN BURN	YOU CAN'T BURN
Vegetation	Chemically treated timber, such as fence posts and some building materials
Paper	Painted and varnished timber
Cardboard	Household rubbish and plastics
Untreated wood	Waste oil

Agrichemicals and fertilisers

Agrichemicals must be prepared according to the manufacturer's instructions and applied at the recommended concentrations and application rates. Application must ensure agrichemicals are not sprayed or allowed to drift onto any neighbouring property.

The discharge of fertiliser to air is a permitted activity, provided there is no fertiliser drift within 30 metres of a residential home or over any property that is 'organic' (registered or certified), or an orchard where fruit is present.

Congratulations Southland!

You've bought yourselves one very important boat

In Southland the coast is never far from our daily lives. Whether we're braving the frigid winds off the Foveaux Strait or making the most of a sunny day at the beach, as Southlanders we've always been intrinsically tied to the ocean, and because of this, we are aware of both its beauty and its dangers.

Andy Johnson is the president of the Bluff Coastguard and knows just how fickle mother nature can be, especially at sea. "We don't get a lot of call outs because people down here are prepared, but when we do, it's not a minor breakdown – it's a tragedy normally."

It's usually personal too: "With us being such a small crew in a small community there's always that fear or trepidation that you'll know who you're looking for, or you'll know of them," says Andy.

That has certainly been the case in recent rescues and Andy gives the example of the fishing trawler, *Ayson*, which hit rocks near Bluff Hill earlier this year. "The rescuers and victims were all Ngāi Tahu," he says of the rescue that resulted in everyone being saved.

Originally from northern Wairarapa, Andy reckons Foveaux Strait can give Cook Strait a run for its money. "I moved here in 2003 because my wife's family is from here and I have boated in and around Cook Strait for a long time. Both straits have an equally bad reputation, but the big problem with Foveaux Strait is that it is shallow. The seas might not get overly big but they are short and nasty, which is a bad combination."

Right now, Andy and the Bluff Coastguard are celebrating a victory, not only for themselves but the entire Southland community, having successfully raised \$1.2 million to fund the building of a new coastguard boat designed specifically for Southland waters.

Andy admits the journey wasn't an easy one, but says the support from the community has been outstanding. Environment Southland was among those who dug deep, pledging \$100,000 towards the cost of the new vessel. "If we hadn't got that amount it would've been a mission to find the balance," he says.

Environment Southland chairman, Ali Timms, says the contribution was the result of responding to an appeal for help, not just from the coastguard, but from Southland as well.

"We listened to what the ratepayers were saying, which was overwhelmingly in support of the coastguard's application to our draft Annual Plan and we felt as a regional council we had a role to optimise and recognise the importance of search



Onboard *NZAS Rescue*, which has served the Southland community for more than seven years (from left to right): Andy Johnson (crew/president), Leon Harrison (Foveaux Memorial Trust), John King (crew) Lindsay Abbott (Invercargill City Councillor), Darryl Pahl (crew/training officer), Wayne Williams (crew/vice president) and Camille Namana (crew/secretary).

Comparing the old with the new...

NZAS RESCUE (OLD VESSEL)	NEW VESSEL
Length: 8.5m	Length: 13.5m (5m longer)
Horse power: 400hp	Horse power: 1000hp (2.5 times more)
Carries: 12 passengers including a minimum of 2 crew, with most people on deck	Carries: 16 passengers including a minimum of 3 – 4 crew inside and sheltered from the weather
Range: Able to cover only one third of required area without refuelling	Range: Able to cover the total required area – 5,500 square miles

and rescue services. They do a very good job in very dangerous conditions and we had the opportunity to maximise a positive outcome in this situation."

The Bluff Coastguard has only ever had "hand-me-down vessels," says Andy. "The old boat is an 8.5 metre Naiad, which we've had for seven years and got third-hand from another unit."

The old vessel, *NZAS Rescue* has served the unit faithfully in a range of situations, but it has its limitations.

"It was involved in the *Easy Rider* incident and if the weather had been any rougher that day we would not have deployed...it was a close call," says Andy.

The new 13.5 metre vessel will have a top speed of 35–40 knots, a larger fuel capacity, space to carry 12 passengers plus crew – all undercover, and will allow the coastguard

to cover its operational range – from Bluff around Stewart Island, to Fiordland and back again – with ease.

"The other driver for replacing the boat we have is to keep ourselves safe," says Andy of his dedicated and experienced crew, one of whom has been "plying the strait" for 35 to 40 years.

Nationwide, coastguard services save around 2,500 people every year, but Andy says that without local support up and down the country, delivering the service would be nearly impossible.

"As a unit we contributed \$100,000 saved up over the years by not spending it on extra equipment, and relying on members' donations and contributions, but without the support of the community we would not survive. Our operations run on 85 percent public donations and in return, we work

Southland's wild expanse of coast is the longest of any region in the country. It stretches 3,400km, from Awarua Point in Fiordland around to Waiparau Head in the Catlins, and includes the rugged shorelines that wrap around Stewart Island to the south.

with local groups and businesses," he says.

Until the unveiling of the new boat, which is expected to be in mid 2015, Andy says the coastguard will continue to work on being good ambassadors for boating safety in Southland and endorsing the local bylaws managed by Environment Southland's harbourmaster.

First though, Andy, on behalf of the Bluff Coastguard, offers a huge thanks to Southlanders for their support. "I was apprehensive of our success, but this campaign has given the unit such a morale boost. To know we have so many supporters out there is a really wonderful thing."



The Bluff Coastguard's new vessel will look the similar to the prototype pictured here at Sumner, but will be two metres longer.
(Photo – Tony Brunt Photography)

Matt Hoffman – *looking after our coasts*

As Southlanders we love our coastal areas. Visitors can't help but be inspired by our dramatic coastlines, spanning from the Catlins, Stewart Island and across to Fiordland.

However, like all parts of the environment, the coast is vulnerable to human activity. That's why some activities on or around the coast need to have a resource consent before they can be allowed. It's important that our natural resources are not being over-used and that their natural characteristics are retained.

According to coastal resource consent specialist Matt Hoffman, "any activity that Environment Southland has authority over, that isn't permitted under our Regional Plans or the Resource Management Act (RMA), requires a resource consent." Coastal resource consents range from smaller issues such as moorings, wharves and other small structures, through to larger issues like marine farms and tourist boats (called 'commercial surface water activities').

A born and bred Southlander, Matt has been a Consents Officer at Environment Southland for just over three years. He finds coastal work very interesting as "it's quite different from other areas in consents due to the lack of property rights. The fact that the coastline is public space means there can be competing interests and tensions that need to be worked through."

A large part of Matt's role is to act as a facilitator between consent applicants and affected parties. His role is that of an advisor, not decision-maker. This involves gathering and interpreting the information presented to him by the applicant. He has to assess that information in terms of a range of planning documents and prepare recommendations that then go to his manager for further consideration. More significant resource consent applications go to a hearing as part of the process.

Preparing a hearing report is a significant part of preparing for hearings. "We have to have the report out five working days in advance of the hearing which recommends a decision, i.e. 'grant' or 'decline'. It also recommends a set of consent conditions."

The report also has to discuss all the relevant policy, whether the application fits with that

policy, the potential effects of that activity, and the concerns of the submitters.

Matt's work is complex. Not only does he have to refer to and interpret planning documents, he also needs to have a good understanding of the Resource Management Act. His background in science (Matt has an Honours Degree in



Matt Hoffman – Environment Southland Coastal Resource Consents Officer

Matt rocks – from coastal rocks to rock bands

So how does Matt unwind from a long week at work? He's the lead singer in not one, but two bands. Ink Mathematics is well established and based in Dunedin, while Carcosa is a relatively new group based in Invercargill. Not only is Matt a natural singer, he writes his own songs as well.

"It's a hell of a lot of fun – it's my favourite thing to do. But I'm interested in music generally – I've got a bit of vinyl at home and stuff. I'll always have bands; it'll always be something that I do."

What do they sound like? "It's not metal but it's heavy – we're really influenced by a lot of the stuff that came out in the 1990s. It's loud and hard on the ears – that's how we like it."

Ink Mathematics has an EP due out soon – check it out: www.inkmathematicsnz.bandcamp.com





Matt aboard *James McKerrow*, Deep Cove Harbour – getting the 'lay of the land' regarding how moorings in the harbour are arranged.

Environmental Management and a Master of Science Degree in Geography) means he has a specialised understanding of the complexities of people and their impacts on the environment.

A self-described 'people person', Matt's ability to relate and communicate well with a wide range of people is also key to his success. "It is really important in this job to be a bit of a 'people person', to be able to build relationships and links."

Site visits – there are worse places to work!

Although Matt spends about 80 percent of his time in the office, the rest is spent conducting site visits. Site visits to Fiordland and Stewart Island are a real perk of the job, but there's a serious side too:

"You do get a sense of scale that you don't get when you are looking at it from aerial photos or a map or diagrams. You actually get a sense of what it [the proposed activity] looks like and the scale of the activity."

It's important for Matt to get a grasp of potential issues in relation to the 'bigger picture'. These visits are a vital part of the job, and influence the recommendations he makes to decision-makers.

Tourist Boats

Many tourist boats in Southland operate out of Fiordland. There's a constant balancing act between the expansion of tourism operations and the need to protect the unique, pristine environment Fiordland provides.

Consent issues with tourist boats include noise, sewage and rubbish, fuel leakage/chemical spills, navigation safety and boat wake. These issues are all heavily regulated so it's generally a matter of ensuring that tourist operators have everything in place and are consistent with the requirements of the Regional Coastal Plan.

Beyond these practical considerations, there is also a need to protect the wilderness and remoteness values of the Fiordland environment, as these are becoming increasingly rare both nationally and internationally.

Marine Farming

Southland's coastlines have many attributes suitable for marine farming, which include sheltered waters that are the right depth, high water quality and cool water temperatures.

While marine farming is recognised as a significant contributor to the regional and national economy, resource consents relating to marine farms can be complex because of their potential impacts on the environment. These impacts can include occupation of large areas of coastal space, navigational safety effects, visual impacts, deposition of material on the seafloor and effects on water quality.

2014 Southland environment AWARDS

Our Environmental Champions

Every year the Southland Environment Awards acknowledge the hard work and dedication of those who go the extra mile. Councillor Marion Miller, an experienced Environment Awards judge, says the awards continue to recognise the amazing achievements of Southlanders working quietly, often without reward, to protect and enhance our environment. "Southland is an incredibly special place and we have so many individuals, groups, and businesses working hard, doing great things to make sure that it stays that way." This year's winners were announced at a ceremony at the Ascot Park Hotel in Invercargill on Thursday 31 July.



Individual Award – Cathy Macfie

Cathy Macfie has played significant roles in telling the stories of Southland through interpretation panels, education programmes, museum exhibitions and books, and she has been instrumental in developing Heritage South.



Innovator Award – Graham & Heather Milligan

There's probably not much about trees that these stalwarts of the Farm Forestry Association don't know. From their Dipton property they have established a cold-hardy eucalypt species that is sold around the world and will forever be imprinted on the Southland landscape.



Schools Award – Lees Street Kindergarten

Carter (4) and Banjo (4) in the plant nursery established as part of the kindergarten's overall landscaping project.



Farming Award – Southern Centre Dairies

This large dairy operation has environmental sustainability to the fore. It has free-stall barns meaning soil and animal health, and environmental pressures can be managed for weather and farm requirements.



Community Group – Southland Forest & Bird Society

Southland Forest & Bird Society members, from left: Veronica and Arthur Williams, Jenny Campbell, Peggy Snoep and NZAS representative Rob Peterson. The Southland Forest and Bird Society's Te Rere project in the Catlins is long running and uses mostly volunteers to do the huge amount of plantings and work necessary to help protect and enhance the habitat for yellow-eyed penguins, blue penguins and titi.



Commercial Award – Mainland Minerals Southern

Mainland Minerals Southern is committed to environmental best practice and protecting our waterways for the future. As a business, they custom-make fine particle fertiliser for clients following soil testing. Mainland Minerals Southern, from left: Aimee and Murray Cockburn, Jamie Hazlitt, Melanie Cupit, Alton McDonald and Laurence Redhead.



Achiever Award – Fiordland Wapiti Foundation

The Fiordland Wapiti Foundation manages the Wapiti trophy hunting resource in the Fiordland National Park. They carry out extensive stoat control work and coordinate the blue duck breeding programme. Roger Wilson from Real Journeys (left) presents the Achiever Award to Fiordland Wapiti Foundation President Roy Sloan.



Councillors' Special Award – Joyce Kolk

Environment Southland Councillor Marion Miller (left) presents the Councillors' Special Award to Joyce Kolk (centre), with members of the Stewart Island Coastal Cleanup group in support. Joyce has a real commitment to making a difference and took the lead in organising the 2013 Stewart Island Coastal Clean-up.

Tsunami video making waves

Like the rest of the country, Southland's landscape and environments pose risks from natural disasters and events which can occur without warning, including weather-related floods, earthquakes and even tsunamis. Southland's civil defence unit, Emergency Management Southland (EMS) is the local arm of civil defence responsible for providing information and action plans to keep you and your family safe should a natural disaster occur.

One of its latest projects is making waves on the internet. The EMS team has created a short video to inform Southlanders about the risks of tsunami locally and what to do in the unlikely event of one reaching our shores.

EMS advisor Craig Sinclair says it's a fresh approach to getting important information out to the public.

"While much of Southland could be at risk if there was a tsunami, communities' needs change with where they are located," he says. "Someone in Otarata isn't going to be interested in what might affect Riverton, so the video allows us to provide all the information people might need in a way that allows them to take away what is important to them and their family, in order to prepare for a tsunami."


Southland's Tsunami Risk was uploaded to Youtube and the EMS

website in June and has since had over 600 views. Every Southland school has been given a copy, along with the region's libraries, to make sure the resource is readily available.

For most of coastal Southland, the biggest tsunami threat would originate from the Puysegur Trench in south west Fiordland, where the Australian and Pacific plates meet and overlap. While the likelihood of a tsunami occurring in our lifetime is very small, Craig says it's still better to be prepared. The video runs through both the risks Southland faces and the best strategies for keeping yourself and loved ones safe.

For Craig, the positive response to the video is encouraging and he says EMS may look into making more videos to highlight the dangers of other natural disasters like flooding, but the essential message would still be the same. "It's all about making sure you and your family have a plan and being informed about how to deal with a situation."





If you feel a large earthquake

which makes it hard to stand, lasts more than 30 seconds and you are near the coast...

...think TSUNAMI!

ACT IMMEDIATELY

Get to high ground or further inland as soon as possible. It may take up to an hour for the location of the quake and the possible effects to be confirmed. By then if a tsunami has been generated it could be hitting the coast. So don't wait for an official warning before you move – go to high ground or further inland immediately.

THEN

Listen to your local radio station for further instructions.

Watch **SOUTHLAND'S Tsunami Risk** on Youtube – www.youtube.com/EMSouthland

Staying connected in emergencies



Power cuts and network outages affect everyone – including the people coordinating an emergency response. To ensure their lines of communication remain open at all times, Emergency Management Southland (EMS) commissioned a local company to develop a new innovation.

It's a portable call centre that easily fits into a suitcase and can connect to any phone technology. It has been dubbed 'the hedgehog' because that's what it resembles when its eight antennae are tilted upwards, to connect with mobile phone networks.

EMS manager Neil Cruickshank says the hedgehog increases their capability to communicate, which is key in any civil defence emergency. "It will serve as a backup in case the existing phone system suffers an overload, or we can set it up in a separate location if we have to shift for any reason."

The device connects to both Vodafone and Telecom's mobile networks and can be plugged into fibre technologies as well as analogue phone lines. It comes with its own call centre and allows up to 40 operators to make and receive calls at the same time.

The hedgehog was locally designed and produced in Southland by Jim Carroll of Voicecom Technologies who says the only similar system he's ever seen was in the United States, where it was being used during hurricanes.

"It's a unique solution in New Zealand, as far as we're aware. I talked to Neil and he asked what comms options there were, if he had to leave the Emergency Operations Centre. I came up with some ideas and put it all in one portable solution."

The idea for the hedgehog emerged while EMS was focusing on business continuity in the region. It was decided then that any potential solution had to be portable, cost effective and easy to operate.

"We were trying to make it as non-techy as possible – a plug-in-and-go solution. Once you start adding more specialised components such as radio or satellite communication, you'd need a tech team," says Jim.

Costs for the system are low, especially while it's in storage. "There are no annual licensing fees with this particular system, and an agreement has been reached with Telecom and Vodafone to allow the cellular SIM cards to be left live without a monthly prepay cost as well," says Jim.

It's reassuring to know that even when phone lines are down in Southland, emergency services will still have a way to organise help – here's hoping that the hedgehog won't be needed anytime soon.



Jim Carroll (left) and Neil Cruickshank with the 'hedgehog'. (Photo – Allison Beckham)

GET READY WEEK 21–27 September 2014



Most days we just get on with our busy lives without giving much thought to events that could drastically interrupt our normal routine, be it a heavy dump of snow, a flood or a fire. In times like these we might wish we had thought about it more and that's why the focus of this year's Get Ready Week is a question: **WHAT WOULD YOU DO?**

Emergency Management Southland is the region's arm of Civil Defence. A big part of its role is to provide Southlanders with information and action plans to help them prepare for disasters. To find out more about how you can prepare for the wellbeing of yourself, your family or your business visit www.getthru.govt.nz.



Getting the economics right for catchment limits

A new two-year project launched last month is worth paying attention to because it marks the start of a major undertaking that will ultimately benefit the whole community. It will provide the best way of understanding how the setting of catchment limits for water quality could impact on Southland's economy and communities. Being able to understand these impacts will put us in a better place to achieve our desired environmental outcomes.

The Southland Economic Project is a joint initiative between Environment Southland, DairyNZ, Beef + Lamb New Zealand, Te Ao Mārama, the Ministry for Primary Industries, the Department of Conservation and the Southland Chamber of Commerce. Environment Southland chairman Ali Timms says she is really encouraged to have such a wide range of partners involved in what really is a project for Southland.

Matthew Newman, DairyNZ senior economist, welcomes the joint and collaborative approach to the complex water quality issue. "Everyone agrees that water quality is essential – the question is what impact different policies have on the

Southland economy and the well-being of our communities. This is an opportunity to ensure the analysis is robust, backed by the expertise of industry groups," he says.

Beef + Lamb New Zealand southern South Island director, Andrew Morrison says the sheep and beef sector makes a significant economic contribution to the region and it was working to ensure its impact was environmentally sustainable.

At a local level, Sarah Hannan, Southland Chamber of Commerce CEO says, "We appreciate the value and competitive advantage our natural resources provide for many local industries. This project provides a great opportunity to work together to

ensure we fulfil the region's economic potential while still looking after our quality of life and our environment."

The Southland Economic Project aims to provide one part of the picture needed to have more informed debate by communities around the choices required to meet the Government's National Policy Statement for Freshwater Management. When put together with the science, social and cultural components, it will make it easier to achieve our community's goals.

"Southland has some unique and challenging water quality issues," Ali says. "Deciding how we meet those challenges needs to be Southland specific, and focused on all of the impacts of the management of water, our most precious asset. This project represents a major investment in Southland's future."



From left: David Wansborough (Ministry for Primary Industries), Barry Hanson (Department of Conservation), Darren Ludlow (Invercargill City Council), Ben O'Brien (Beef + Lamb New Zealand), Ali Timms (Environment Southland), Sir Tipene O'Regan (Ngāi Tahu), Sean Woodward (Southland Chamber of Commerce), Matthew Newman (DairyNZ) at the launch of the Southland Economic Project at the Te Rau Aroha Marae in Bluff recently.

Cutting edge science enticed south

Some of New Zealand's top scientists are being lured to Southland with the prospect of ground breaking research opportunities. It is all part of a plan to support the important work that needs to be undertaken on water quality, says Environment Southland's principal scientist Dr Clint Rissmann.



Dr Clint Rissmann

"Southland doesn't have a university, any crown research institutes or any independent researchers. We recognised that we couldn't

answer the questions our community wanted answered by ourselves, so we've created a programme to make Southland as attractive as possible to secure the top scientists and research institutes to help us out," says Clint.

And, the plan has worked. Researchers from NIWA, GNS Science, ESR, AgResearch, Landcare Research, DairyNZ, Beef + Lamb New Zealand and Public Health South are all bringing their expertise and research funding to Southland over the next three years, which means considerable value for money. Clint estimates for every dollar of ratepayer funding, Southland will receive about three dollars worth of science.

Environment Southland's science programme has been designed to better answer questions like: *How much water do we have and where does it come from? How much groundwater is entering our rivers and where? Why are certain parts of our landscape more sensitive to land use than others?*

Clint says answering these sorts of questions is an important step as we progress the Water and Land 2020 & Beyond project, and move towards the setting of limits on nutrients in our waterways.

"Collectively we're building science capital for the region, which is really exciting and important for providing the best understanding of how the natural resources in our region function, so that our communities can have the best information available when it comes to deciding on setting limits. This work will have a comprehensive scope encompassing groundwater, surface water, lakes and estuaries," says Clint.

Dr Chris Daughney, director of environment and material division at GNS Science says he was attracted to Southland for several reasons. "Environment Southland has a great team of scientists that are really keen to work alongside us in a real partnership," he says. "Plus I'm excited to be a part of this concerted effort to build science capital."

Chris says the Government's National Policy Statement for Freshwater Management will mean some very significant changes for the way all regional councils develop and implement policies to manage land and water. "I am excited about the opportunity to have the science from our collaboration feeding in to Environment Southland's policy. I think this is a real opportunity for science to help, and make a difference."

Water and Land project – where to from here?

The Government's National Policy Statement for Freshwater Management requires regional councils to maintain or improve overall water quality within a region and to set catchment limits.

Water and Land 2020 & Beyond is Environment Southland's way of meeting this requirement and is a three phase project. Phase one saw the development of Focus Activity work streams. Phase two is about creating a water and land plan by combining several related plans and improving its effectiveness. Phase three will see the development of catchment limits for water quality (and, as necessary, quantity).

Environment Southland will commence the catchment limit setting process in 2016. Before then, programmes like the Southland Economic Project and the science programme will be breaking new ground to make sure that we have the tools and understanding we need to start discussions with our communities.

We'll be working hard to make sure that you have the information you need to answer questions like what do you value about our waterways and what do you want them to look like in the future, while also understanding the possible trade-offs of these decisions.

To stay up-to-date with the Water and Land 2020 & Beyond project, subscribe to the e-newsletter. Visit www.es.govt.nz and sign up.

Rule proposal demonstrated on-farm

Over 100 farmers attended two field days on properties near Gore and Lumsden to work through the practicalities of the proposed changes for a Hill and High Country Development rule.

The proposed rule for hill and high country development came as a surprise to many in the farming community, which is one of the reasons why Environment Southland decided against notifying it earlier this year. That decision has allowed for additional time to refine the proposal in discussion with hill country farmers.

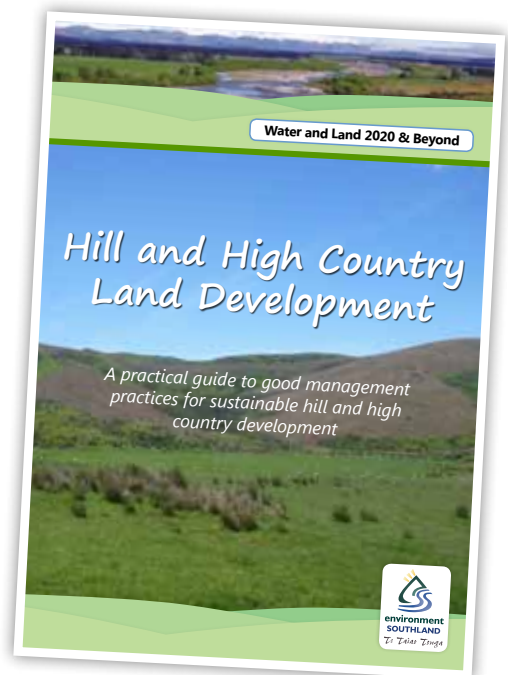
Northern Southland hill country farmers Willie and Phillipa Menlove hosted the first of two field days on their property, so other farmers could see how the proposed rule might be applied in an on-farm setting.

Willie's development is nearly complete, and he admits that he initially attacked the 'low-hanging fruit' in terms of which parts of his property were easiest and cheapest to develop. "Environmental protection wasn't at the top of our priorities, but it's being given more and more consideration," says Willie.

While protecting the environment might not have been at the top of his priorities, what has been achieved is now an excellent example of hill country development. Environment Southland senior land sustainability officer Gary Morgan says he was pleased Willie and Phillipa offered their property for a field day as it is a good example of a hill country property with big gullies, permanently flowing waterways, winter grazing on the hill country and with easy access.

"The Menlove's development would meet all the criteria for the current proposal," Gary says. "They have 20 metre setbacks from waterways, five metre setbacks from gullies; it's an excellent example of development."

Willie says that clear good management practices and an education programme will be key to getting the outcomes everyone wants for water quality.



Next steps?

The refined plan change will go back to Environment Southland councillors for consideration on 1 October 2014. If a plan change is notified there will be a formal submission period where submissions can be made in support of or against the changes. Check out our website for simple ways to make a submission.

A booklet outlining good management practices – *Hill and High Country Land Development*, is now available on our website www.es.govt.nz.

From left: Environment Southland staff Fiona Young and Gary Morgan with Willie Menlove at the recent field day.



Keeping **MARINE PESTS** out of Fiordland

Ensuring all vessels and gear entering Fiordland waters are clean is the major focus of a multi-stakeholder plan that's the first of its kind in New Zealand. From large tourist vessels to small trailer boats, the potential for bringing pests into Fiordland is very real.

The removal of approximately 1,900 *Undaria* plants (*Undaria pinnatifida*) after a single specimen was discovered in 2010 has shown just how resource-intensive responding to a marine pest can be, once it has arrived.

"We really don't want *Undaria* or any other marine pest to get into Fiordland again," says Environment Southland biosecurity officer Derek Richards. He has been involved in the *Undaria* reponse since 2013, and is now part of the steering group for the Marine Pest Pathway Plan for Fiordland.

Pathway management plans first identify the pathways that allow pests to enter an area, and then look at ways of ensuring that pests can no longer use those pathways, rather than focusing on the pest itself.

"It will most likely change the way people are accessing Fiordland, and hopefully it will change behaviour. We need people to realise that the current situation is not tenable for keeping Fiordland pest free in the long-term," says Derek.

"Someone at our last meeting used the analogy of wearing a seatbelt. Back in the day people drove around not wearing seatbelts at all because it just wasn't perceived as being a risk – now everyone wears seatbelts and understands the risk of not doing so. We want a similar behaviour change for Fiordland, where people ensure that their boats and gear are clean before they visit because they know it's a risk if they don't."

The current plan is to be developed collaboratively by Environment Southland, the Ministry for Primary Industries, the Department of Conservation and the Fiordland Marine Guardians, and will follow a community/ joint agency approach that has proven successful in the past (eg, the joint agency *Undaria* response in Fiordland).

"If we're going to put a plan in place it needs to be workable for the people that are going to be accessing Fiordland, and the only way we can get that is by having them involved from the start," says Derek.

Community consultation for a draft plan will begin over the next 6–9 months, and anyone who is interested in the issue is welcome to put their ideas or input forward.

Minutes from recent steering group meetings are available on Environment Southland's website, along with more information about marine pest pathways plan. Visit www.bit.ly/pathways-plan

Not welcome in Fiordland

Fiordland is well known for its pristine waters and unique biodiversity. It is this purity that makes it so important to us as recreational users, and to the fishing and tourism industries. If marine pests become established there, they are likely to cause irreversible harm to the marine environment – out-competing native species and adhering to marine equipment – affecting the quality of our recreation and the viability of those industries in Fiordland.

For more information about the marine pests which pose a threat to our marine environment check out the Regional Pest Management Strategy, available online at www.bit.ly/marine-pests



Undaria (Undaria pinnatifida) is an Asian seaweed often referred to as the 'gorse of the sea' because it spreads so widely and is hard to eliminate.

CHILD'S PLAY!

Learning all about water pollution

Where does pollution come from? How does it reach our waterways? And what can we do about it? The EnviroScape® model will help Southland educators answer these questions in an exciting new way.

Environment Southland's environmental education officer, Mark Oster ordered the model from the United States with the intention of bringing lessons about water quality to life. "The EnviroScape model is a hands-on learning tool that shows how water pollution is connected in our environment," he says.

"We got it to show schools the effects of point source and non-point source pollution on waterways. Previously we would be showing pictures, or travel to estuaries with classes – but that's not practical for every school," Mark says.

The EnviroScape® is a portable landscape model of a catchment, which includes mountains, estuaries, rivers, towns and farms. With the help of natural colouring agents and rain from spray bottles, the paths of pollutants from the mountains down to lakes, estuaries and the sea become visible.

The model can have animals, tractors and vehicles added. Mark says it's these small details that entice children to interact with it, making the lesson intriguing and personal.

"The moment you take the model out, children are interacting with it and tell stories from their own experiences. They talk about things they're excited about like their favourite swimming or fishing spots, or things they've seen in their backyard."

Back in May, Mark invited teachers from around Southland to an introduction workshop with the new model, to demonstrate the powerful lessons that it can help to deliver. Southland Girls' High School teacher Lynley King has since had the model at her school twice and says it's an excellent tool to support learning in the classroom.

"I like it because it is quite contextual – when you talk about catchments and receiving environments you can demonstrate that straight away. The best bit is that you can see how all the sediment and pollutants go into the estuaries, like they're one big dumping ground."

EnviroScape® lessons are flexible, and can be given at a variety of levels. Mark says: "Once you've got a feel for how pollutants behave when in water, you can then think

about what we can do to minimise pollution. You could talk about riparian plantings, water treatments, or things we can do to prevent pollution in our daily lives."

Although the model can realistically demonstrate complex situations, Mark has found that it excels at bringing home important basic facts. "We found that there is a huge proportion of children and adults that don't know that stormwater from right outside their school ends up in our waterways and estuaries. With this model we can show specifically that this is where the pollutants end up," says Mark.

While the model is still in its trial phase, Mark says he's already had really good feedback from both teachers and children. "We've used it from early childhood right through to secondary school and will be undergoing trials in several more schools over the current year." He hopes the model will help develop education with a real hands-on aspect that can be delivered in a wide range of situations.

Schools interested in having Environment Southland's education team visit with the EnviroScape® model can contact them on 0800 76 88 45 or send an email to education@es.govt.nz.



Environmental education officer Mark Oster (left) demonstrates the new EnviroScape model to teachers Kira Lockie – Waianiwa School, Mel McKerchar – Waverley Kindergarten and Rosi Coyle – St Teresa's School, Bluff.

Definitions

Catchment – An area of land where water is captured by the natural landscape. In a catchment, all rain and run-off water eventually flows to a waterway, or into the groundwater system.

Point source pollution – Pollution that directly discharges to a waterway from a specific place like an industry or a factory.

Non-point source pollution – Water that has flowed over or through land or roads and collected pollutants, such as nutrients and sediment, before entering a waterway or the groundwater system.

Things to look out for...

Significance & Engagement Policy

The existing significance policy is being amended in light of recent changes to the Local Government Act to include an engagement component. All councils are now required to have this added component, which will identify the degree of significance attached to proposals, assets etc; and set out how and when the community would be engaged with, in the council decision-making processes.

All Southland councils will be seeking the public's views on their versions of this change in the policy in the lead up to preparing next year's Long-term Plans. The timeframe for this will vary from council to council.

The Story About Southland's AIR

Southland's Air / Ngā Hau o Murihiku is the region's first State of the Environment Report about air. It's been designed with the community in mind; exploring many facets of Southland's air and giving context to air quality issues.



Copies will be available at Environment Southland, public libraries and online at es.govt.nz and www.BreatheEasySouthland.co.nz

Regional Policy Statement

The *Proposed Southland Regional Policy Statement 2012* guides how significant resource management issues are to be managed in the region. The Resource Management Act requires each region to prepare and subsequently review the Regional Policy Statement.

A full review of Southland's proposed Regional Policy Statement began in 2008. It was publicly notified in May 2012, with about 68 submissions being received. A further 29 cross-submissions were also received.

The hearing of submissions will get underway in October, with decisions expected to be released next year.

Regional Public Transport Review

A new *Regional Public Transport Plan (2015 to 2025)* is currently being prepared to address regional issues relating to potential subsidised public transport.

The responsibility for regional public transport was transferred from Environment Southland to the Invercargill City Council (ICC) by agreement in 2001. ICC is the only organisation in the region that operates a subsidised public transport system.

The plan will be released for public consultation during November and December this year.

Contact details for consultation and submissions will be available on the Invercargill City Council and Environment Southland websites in early November.

OUT IN THE FIELD...

Our staff and contractors are no strangers to extraordinary situations. See what they've been up to lately as they go about looking after our region's natural resources.



Flavour Lures – Biosecurity officer Derek Richards displays a new type of lure that is currently being trialled in More's Reserve at Riverton to trap pest animals. Ceramic tubes infused with potent cinnamon and aniseed flavours entice possums, while meat and fish flavours attract rats and stoats.



Filming the Estuary – Coastal scientist Nick Ward was filmed by TVNZ's Rural Delivery film crew talking about a major monitoring project that gathers information to make better decisions for the protection of Southland's estuaries. Watch the programme online at www.bit.ly/ruraldeliveryS10E20



Water Auto Sampler – Senior hydrologist Chris Jenkins and senior environmental technical officer Stacey Stuart take a look at one of six new auto samplers about to be installed. The auto samplers are pre-programmed to take samples from rivers and will be particularly useful during periods of high rainfall.



Whitebaiting Presentation – Freshwater and marine scientist James Dare recently spoke at the Annual General Meeting of the Southland Recreational Whitebaiters' Association. He updated over 60 whitebaiters on the results of the 2013 whitebait survey and presented the ongoing science around water quality.



Follow us on Facebook to get updated on all the exciting and important work Environment Southland staff are doing in our region.

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.

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