

Envirosouth

Environment Southland News

January 2011



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22

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Bringing back the birds
Appreciating wetlands



From the Chair

One of the last meetings of the year I attended was a tour of SouthPort at Bluff and a catch up with senior staff and board members. This visit was mainly to familiarise new Councillors with this strategic asset and to receive an update on SouthPort's business.

I last toured the port six years ago and the positive turnaround since then was evident for all to see. The port's new \$6M Liebherr crane was ready to go and a constant stream of trucks were unloading logs for the growing Chinese market. Since 2008 the large MSC shipping service to Bluff has given Southland a vital regular link with the Asian, North American and Australian markets. Due to rapid growth, the SouthPort team is now faced with the dilemma of ensuring the few remaining hectares of available space on the island harbour are only used to maximise returns.

Although much of Southland's dairy exports in particular leave NZ from Otago, SouthPort handles much of the imported commodities that are vital to our rural economy.

So, what's all this got to do with Environment Southland, you might ask? Well, when local government went through massive reorganisation in 1989, the Government decided that ownership of strategic regional assets such as ports should rightly sit with regional rather than territorial authorities. Today Environment Southland owns 66% of SouthPort's publically listed shares and this asset returned \$2,355,000 to the ratepayers of Southland last year. This, together with the returns from our other investments, means your rates are underpinned by approximately 50%, enabling us to provide a far higher level of service and performance than other Councils with a similar rating base.



Chairman Ali Timms.

Other Regional Councils look with envy at the largess that SouthPort provides to Environment Southland and we have been pressured in the past to fund projects such as the Dunedin Stadium or sporting complexes within the Invercargill area. Successive elected Councils have rightly turned these requests down.

The retention of this important regional asset must remain with the only region-wide local body so that the returns from the SouthPort shares are fairly apportioned for the benefit of all of Southland ratepayers.



Environmental short film competition a first for Southland

Budding film directors and camera crew are invited to unleash their creative energies and enter the Green Screen Environmental Short Film Awards, to be run in conjunction with the Southland Environment Awards for the first time this year.

The competition is aimed at school students and youth and the organisers hope it will spur young Southlanders to think positively about environmental issues in our region and express their ideas on film. The awards will also bring a fresh element to the successful Southland Environment Awards, which will be held for the 15th time this year.

The shortlisted films, each up to five minutes long, will be screened at a gala night at Centrestage Theatre in Invercargill in July, with the winners also

played at the full Environment Awards night shortly afterwards.

The awards will be given in three categories – Yr 1-8, Yr 9-13 and an open section for any Southland resident aged up to 25 years. Cash prizes of up to \$1000 will be awarded in each section.

The Green Screen Environmental Short Film Awards are being organised with sponsorship and assistance from Fonterra, Cue TV and The Edge.

Fonterra Lower South Island Operations Manager, Keith Mason, said Fonterra was pleased to be a part of the inaugural awards. "With the increasing number of people online, short films have become a powerful communication tool and it's great to see Environment Southland using this

medium to get young people thinking creatively about their environment. I commend Environment Southland for taking this innovative approach."

Full information about the awards, including conditions of entry, can be downloaded from our website www.es.govt.nz and will also be sent to all schools at the beginning of term.



In the Limelight



Limehills School aims high – their school motto is to be “simply the best”. When the school achieved a Green-Gold award in the EnviroSchools programme at the end of last year, it joined an elite group of schools around the country and became only the second school in Southland to attain that status.

Shortly before the summer holidays, Limehills held a special assembly to celebrate its Green-Gold award. Current students were joined by members of the original 2004 Enviroteam including Nina Shields, who has just completed five years at Southland Girls’ High School. Nina said it was an emotional experience for her to see how Limehills had developed because of its participation in the EnviroSchools programme. “When we started here there was nothing environmental about this school apart from the nature area [a small area of trees and shrubs]. Now it’s so cool!”

Kaitlin McKenzie, who was also a founding Enviroteam member in 2004, said she was proud to have been a part of the programme since she was six years old. She and Dylan Forde, the only other member of the original group still at the school, have been part of the school’s progress through the Bronze and Silver levels to Green-Gold.

Limehills School is committed to sustainability and has multiple projects on the go, both inside the school and in the wider community. These include an ongoing project to minimise waste, a school vegetable garden, worm farm and a paper brick-making scheme. The school also looks after the Kowhai Reach of the Winton Stream.

Principal Malcolm Walker said that the Green-Gold award was not the end of the line for Limehills as an EnviroSchool. “We’re always looking for new ideas and initiatives,” and there was strong competition for places on the Enviroteam, he said.

Board of Trustees member Rochelle Robins described the school’s EnviroSchools experience this way: “I see Limehills School as an oasis of opportunity for exploration, empowerment, discovery, learning, leading and making a difference. The attitudes and ideas these children have put forward have made an impact on a wide circle within our community.”



Students from Limehills School’s Enviroteam plant a tree to mark the Green-Gold award.

Nina Shields also encouraged today’s students to take their EnviroSchools experience into their everyday lives. “There is still lots of stuff you can do when you are older – a lot of people lose their enthusiasm so just keep it up and go for it!”

H.Q.’s Original Worm Poem!

*I am a little worm
My day is filled with food
Eating is my hobby
It gets me in the mood*

*Give me all your crusts
I’ll eat your apple too
But don’t give me your orange peels
They’ll make me spew*

*Keep me nice and warm
I like it in the sun
Living in a bun
Is really, really fun*

*Crusts of bread or an apple core
Feed me up cos I’ll eat more
When you’re ready you will see
That we reward with super pee!*

*Pour it on your garden
It will make your veges grow
Then feed us all your garden waste
You need us, this we know*



Councillors Grant Hubber, Maurice Rodway and Nicol Horrell at Limehills School.



Pest control helps restore native bird numbers



Photo: Russell Winter

A tui visits Invercargill man Russell Winter's garden.

Southland Landcare Groups are beginning to see the benefits of extensive pest control with reports that numbers of tui and kereru (wood pigeon) are increasing in the region. An abundance of food and safer habitat is thought to be the main reasons why so many more of the birds are flying around this year than previous years.

Long-time bird conservation and rehabilitation champion Russell Evans of Otatara says more people are becoming involved in pest control, and this is helping tui numbers rise. "People have been complacent about pest control, but more people are getting involved now," Russell says. "The tui are nesting

closer to houses. We are getting a lot more young tui to care for, but they are normal injuries caused by things like falling out of nests too young."

He believes the fact that he and wife May are being brought more young tui to rehabilitate is a good sign, as this means that predators are not getting into the nests and taking the eggs or killing the young.

Russell and May have been active volunteers for the Otatara Landcare Group for several years, but only started serious pest control about two years ago. "Rats were becoming a big problem for the tuis. The Department of Conservation (DOC) were doing a study

and they would find a nest and when they went back the chicks had been killed. I got offered a bucket of poison from the District Council, and I shared that around my neighbours. Once we had covered about an acre block, it really started to make a difference."

Ralph Powlesland was a key player in the DOC study, which looked at tui and kereru in urban and rural Southland, with one component being the distances they travelled for nesting and food. Ralph said the study was important as it gave a better understanding of how these birds use the modern landscape.

The study showed that kereru and tui have adapted well to the more urban environment as New Zealand's landscape has changed from lowland native forests to pasture, exotic forests and towns. "Both species are quite generalist in their food sources," Ralph says. This means that the birds aren't too fussy about whether they eat native or exotic foods, and will fly over unsuitable habitat to get to food, such as nectar and fruit, when it becomes scarce in a patch.

Birds were tracked using a variety of methods for the study including colour banding (tui), radio transmitters (tui and kereru) and even a few satellite transmitters (kereru). Ralph says that the satellite technology had recently been adapted to suit smaller animals, and was perfect for tracking kereru that can travel several kilometres between forest patches. "Once the bird had been captured and the device attached to its back, we could log into a website to download location data, plot the locations on a computer map and so see where the birds were, all while sitting at our desks."

This tracking capability threw up some surprises. "We knew that kereru travelled across Foveaux Strait but we were surprised at how frequently a male named Roger did that."

He crossed the 32 kilometre-wide strait five times during a 14-week period, and travelled at least 500 km in total. This travel can be related to the breeding season, as kereru go to Stewart Island around Christmas time when native trees there have ripe fruit, and then head back to Invercargill around springtime when the willows and other deciduous trees have new growth which they like to feed on.

Not all of these birds travel long distances though, as the changed

environment has also meant that kereru in the Hokonuis can spend spring feeding on exotics in farmland, especially about farmhouses, and then move to native forest to nest, moving only a few hundred metres in some cases between the two habitat types.

Tui are particularly comfortable in and around Invercargill, most moving just a few kilometres at most in autumn or winter to move from native forest patches where most nest to shelterbelts of flowering gums on farms or nectar sources in towns. For example, many spend time in Thomsons Bush or Anderson Park when breeding, and then move into the city when their nectar and fruit sources run out. "Invercargill is the sugar-water feeding capital of New Zealand," Ralph says. "The number of tui in the city probably wouldn't be as high if sugar-water wasn't provided to them (and bellbirds and silvereyes) at over 100 properties each winter."

Ralph says that the pest control effort being undertaken by the various Landcare groups will definitely be

helping to raise bird numbers. "If pests are eating the food then it's not available for the birds. With fewer pests about, such as rats and possums, not only is there more food to promote breeding of birds, but also more chicks are able to survive and leave their nests successfully."

Russell agrees, adding that if more people became involved in pest control it would be cheaper and take less time to see results. He also suggests that if older people wanted to be involved but weren't able to lay poison or set traps themselves, the pestbusters could get someone to go through their property for them.

Help is available for people interested in controlling pests in other areas as well, not just Otago. "Environment Southland has been a marvellous support," Russell says.

The Council supports Landcare groups on Stewart Island, in Bluff, Riverton and several other areas across Southland.



Photo: Chris Rance

Kereru are becoming more common in Southland.



Water quality drops after rain

Frequent rain during early January led to a drop in water quality at many of the region's most popular freshwater swimming spots, leaving beaches and the lakes as the best places to take the family.

Environment Southland's coastal scientist, Greg Larkin, says that water quality always deteriorates after heavy or persistent rain, as pollutants are washed off the land and into rivers and streams.

The Council monitors water quality and the presence of the blue-green algae cyanobacteria at 30 sites on the region's rivers, lakes and coast between December and the end of March.

By the end of the first week in January, bacteria levels at six sites on the Aparima, Oreti, Mataura and Waikaia Rivers all breached the safe limit for contact recreation, including swimming,

while levels at two sites around the coast exceeded the safe limit for taking shellfish.

Mr Larkin said those results were to be expected after the run of wet weather.

However, on the positive side, the flushing effect of high river levels had swept away accumulations of cyanobacteria in many rivers.

An award-winning study by high school student Bailey Lovett at Riverton last summer confirmed the link between poor water quality and elevated levels of faecal coliforms in shellfish. As a result, the Council now recommends that people avoid taking shellfish for five days after heavy rainfall.

Environment Southland has become more proactive about publicising the results of its water quality monitoring, with new signage installed at both Riverton and Bluff beaches this summer,



Luke Moss enjoys a day at Porpoise Bay.

updated by community volunteers each week.

The water quality results are also available on-line at www.es.govt.nz – just follow the link to Bathing Water Quality on the front page – and through the automated telephone information service, phone (03) 211 5010.



Navigation aids make boating safer in Fiordland

Visiting cruise ships will have a safer passage through Fiordland waters thanks to the installation of four new aids to navigation.

These safety aids, three Isolated Danger Marks and a West Cardinal Mark, are the result of a risk assessment that Environment Southland began in 2005.

Harbourmaster Kevin O'Sullivan said the aids were there to highlight dangers for all boaties but were of most benefit to cruise ships, which require a higher standard of aids to navigation.

"When a navigation aid is installed, a Notice to Mariners goes out and eventually LINZ places the location and details on charts," he said.

The risk assessment evaluation was quite lengthy requiring consultation, resource consent and approval from Maritime New Zealand. Once in place a maintenance programme is also required. "It's not something you do lightly," Kevin said.

The aids sit about two metres above the water. Two are in Dusky Sound, one is at the northern entrance to Breaksea Sound and the other is yet to be completed over Tarapunga Rock in Doubtful Sound.

Aids to navigation have also been put in at Paterson Inlet on Stewart Island and others for Half Moon Bay are under consideration. "We are looking at a light on the wharf and a marked passage in

and out of the wharf. There are some marks in place, but they are not in good repair," Kevin said.

The navigation aids are also a reminder to recreational boaties that they should fully understand what the markings mean. For example, a West Cardinal Mark is yellow with a single broad horizontal black band and a top mark, and requires boats to pass to the west of it.

Maritime New Zealand has published a booklet explaining Buoy and Beacons, which can also be found on their website www.maritimenz.co.nz and is also available from Environment Southland.

Gollums (but no hobbit) in the Meadow Burn



A small population of nationally threatened native fish, along with the habitat that they live in, is being monitored in the Meadow Burn spring, near Riversdale, this summer.

Environment Southland surface water resources scientist Steve Ledington is studying the distribution of gollum galaxias in the upper reaches of the Meadow Burn. He aims to establish how the available fish habitat varies as water levels change in the spring.

One of Southland's largest springs, the Meadow Burn is fed by the Riversdale Aquifer. This means that low groundwater levels can significantly reduce flows in the Meadow Burn. The Council wants to make sure that groundwater abstraction does not adversely contribute to these impacts on the little waterway.

In particular, concern surrounds the headwaters of the Meadow Burn, which are prone to drying as groundwater levels decline in summer. "The uppermost reaches are important for adult gollums, providing them refuge from brown trout, a known predator," Steve says. "We also believe that the upper reaches provide the spawning grounds for the Meadow Burn gollum population."

The results of Steve's monitoring programme will help the Council determine how to manage groundwater use from the Riversdale Aquifer, without compromising the sustainability of the spring's aquatic ecosystem.

The monitoring is still in its early stages, with only four of a planned 15 sampling runs completed so far. "Our aim is to find out where the fish are and see what is happening to the habitat they require, as water levels in the spring fluctuate," Steve says.

He and his colleagues are capturing and counting gollums, recording changes in water depths and measuring what areas of the spring dry up as summer progresses.



Environment Southland summer student Tim Elder nets Gollum galaxias in the upper reaches of the Meadow Burn spring, near Riversdale.



Precious! A gollum.



Planning Development on or near Wetlands? Talk to Environment Southland



An example of unauthorised drainage near Awarua Bay.

Environment Southland staff are concerned some farmers are still not getting the message that they can't develop land on or near wetland areas without talking to staff and getting proper consents where needed.

A fly-over of farm boundaries along the Waituna and Awarua wetlands area last year has made it apparent that some farmers have illegally dug out disused drainage, destroying wetland areas in more than a dozen sites.

Senior Land Sustainability Officer Gary Morgan says staff encourage anyone considering development around peat and wetlands to talk to them as there may be a way to accommodate some development while conserving wetland areas and placing covenants on special areas.

He says a common scenario involves farmers looking to develop land around the margins of a remnant peat swamp where there has been some historical drainage. "Often these farmers want to tidy it up. In most cases they know there are consent requirements but some farmers go ahead willy-nilly," Gary says.

"If the wetland has been full of gorse and exotic species and is not particularly supporting a good ecosystem, some compromise can be found. There's a line where people can develop up to, and try and develop a buffer zone to leave the wetland in its natural state for water storage, water filtration and for its important ecosystem values."

If farmers don't speak to Environment Southland and obtain necessary consents or stick to rules in the water plan governing wetlands they may face big costs in fines, Gary says. Many farmers also don't realise it

takes decades and large expenses in developing marginal lands into good pasture and may benefit from some advice.

Compliance Officer Helen Meintjes says she got an "enormous shock" when she flew over the Waituna and Awarua area recently. She says the damage to wetlands is very apparent where farmers had dug out disused drains, bulldozing piles of vegetation and large amounts of soil in an attempt to convert wetland area to pasture and assist with drainage from or around their properties.

"There was a significant amount of drainage works noted along the periphery of the Waituna wetlands as well as areas of valuable wetland being affected closer to Invercargill," says Helen.

Rules have been in place since 2007 and it has been well publicised that digging

new drains is considered draining of a wetland. In addition: "We've had legal opinion – if you are clearing an old drain in one of these areas and it's not functioning as a drain any longer than it is likely that you are draining a wetland and are therefore in breach of regional plan rules," says Helen.

While plan rules may allow clearing out vegetation from functioning drainage ditches, this does not mean a digger can be used to then widen and deepen the ditch significantly. Another misconception is that if an area has largely non-native species, it is not a wetland. Helen says it is important to discuss any development with Environment Southland staff who can tell you whether a resource consent is required.

Farmers who were caught out because of the aerial inspection were warned about their actions. But the compliance team will be taking a stronger

enforcement approach with landowners who continue development without consulting Environment Southland staff or obtaining necessary permits, she says.

Although Environment Southland does not directly deal with vegetation clearance, there are plan rules that can be enforced by the local authority and these types of incidents will be referred on if detected during compliance monitoring. "Please ensure you contact the relevant territorial authorities before attempting to clear any vegetation," says Helen.

Resource Planner Bonnie Rowell stresses that wetlands have a hugely important role to play in flood control, groundwater replenishment, water purification, stabilizing shorelines and storm protection. They are also valued for their cultural and recreational role as well as being a reservoir of biodiversity.

As well, Waituna wetland is listed as a Ramsar site, New Zealand's first designated wetland of international importance. The Ramsar Convention is an intergovernmental treaty. "It's really important we protect it, and we are obliged to under international rules," Bonnie says. The wetland was listed in 1976 because it supports plants and animals only found in that area as well as threatened species and communities, is important in maintaining the genetic and ecological diversity of the region and is a crucial habitat for plants and animals at critical stages of their biological cycles.

Care is needed regarding land development around the margins of the protected Waituna wetland as it can result in poor water quality and sediments from streams feeding into the wetlands, thus degrading the water quality within the protected site, Bonnie says.

Celebrating World Wetlands Day 2011 at Waituna

Saturday 5 February

The Waituna Landcare Group (WLG), in conjunction with the Southland Wetland Working Party, is holding a field day in the lower Waituna Catchment.

The day starts at 10.00am at the gravel pit on the corner of Waituna Lagoon Rd and Hansen Rd, to look at a restoration project the Landcare Group is undertaking. Then there will be a drive through the Waghorn property to look at fish friendly drain management and the future of the special bog cushion plant, *Donatia*.

A bbq lunch will be available followed by a visit to Munros' wetland to look at biocontrol options, QEII covenanting and riparian fencing and planting.

The day finishes with afternoon tea at the Mokotua Hall and the launch of the new Southland Community Nursery website.



A bus will leave Invercargill from the Feldwick Gates, Queens Park, at 9.30am and costs \$5.

Members of the public are welcome. Registration is essential for the bus and bbq – email g.munro@woosh.co.nz or ph 239 5827 – or people may prefer to make their own way to the starting point and drive to each venue independently, bringing their own food.



Councillors' Comments



Cr Neville Cook.

Environment Southland Councillors are keen to make a positive contribution to the future enjoyment of our coastal scenery for locals and visitors.

The Bluff to Invercargill walkway project has been progressing for some time and leads on from the establishment of the well-patronised Waihopai floodbanks track network constructed over recent years.

Soon, an additional part of the walkway from the Kew Rd end through to the ICC Wastewater Treatment Station at Lake Street will be opened.

Environment Southland is committing \$50,000 each year towards the costs of completing the track through to Bluff, and the Invercargill City Council has contributed \$50,000. The track has been designed to follow the Oreti River Estuary, through Greenhills and along the shoreline around Bluff Harbour to Bluff.

We anticipate that some Government funding will be available to help complete the track as part of the national network of walking and cycleways through New Zealand.

I have taken a personal interest in the promotion of this project and look forward to its completion so we will all have an opportunity to enjoy our unique coastal environment, away from the distraction of road traffic.



Cr Ross Cockburn.

A new team, another term as Fiordland Constituent Councillor and the added challenge of taking on Regional services chair all give me a great sense of anticipation and dedication to strive to achieve positive outcomes in areas I believe need addressed and will happen, given time and thorough research.

An integrated weed management programme for all Southland rivers with full participation by all stakeholders would be optimum. Fair and equitable water distribution should be the norm and be accessible to all those that seek it, providing the need is justified. There are a host of options that I believe should be looked into, in a real effort to add to our water resource.

The proposed amalgamated rating district for the whole Te Anau basin is a step in the right direction, the benefits far outweigh any perceived negative.

Given my background, I am fully aware of the constant need to be vigilant in regard to all pest and biodiversity matters.

Enough said: the Christmas break was an opportunity to be enjoyed with our whole family and has refreshed me for the task ahead. The staff at Environment Southland are very dedicated and always willing to help when asked about any issues of concern.



Cr Rowly Currie.

A bad day in the bush is far better than a good day at home in an armchair."

So said the late Warrick McCallum, one of the founding members of the Aparima Pest Busters. It was in his honour that an information panel was unveiled at Mores Reserve on Monday 29 November.

A decade ago Warrick and other Riverton identities including Jimmy Dixon and the late Alan Broomfield, decided to bring the birds back to the hill and town. This involved reducing the impact of predators to allow birds to breed and thrive.

The Southland District Council helped with the finance and Environment Southland provided technical support.

It was a simple and moving ceremony, and as if on cue, the birds began to sing.

Two years ago, St Teresa's School in Bluff, joined the Enviroschools programme. Their Enviro group, enthusiastically led by Rosie Coyle, has excelled with their care of chickens project, setting up a vege garden, cutting down on rubbish to save thousands of dollars each year, and carrying out a survey which revealed that people feel good about the school and the environment.

At their Prize Giving Ceremony on 14 December St Teresa's received a bronze Enviroschools award. It was an honour to congratulate the pupils on their efforts and to thank Nikki Tarbutt, Environmental Education Officer for her valuable contribution.

There are definitely no age limits in caring for the environment.

Rain revives groundwater levels



Persistent rain in late December and early January has brought a reprieve for most of Southland's groundwater resources, which were under significant pressure at the start of the summer.

Niwa, the National Institute of Water and Atmospheric Research, predicted moderate to strong La Nina weather patterns throughout the summer of 2010/11 meaning higher than average temperatures and lower than usual rainfalls in Southland. A run of wet weather has put a dampener on their predictions of a warmer and drier summer than usual, but overall trends for the season are still suggesting we will feel the effects of La Nina for another couple of months.

Senior groundwater scientist Karen Wilson says climate variability patterns can be clearly traced from Southland rainfall data dating back to the 1900s. All the indicators point that Southland is going into a climate period characterised by lots of La Nina events

and floods and droughts, which last took place in the 70s.

El Nino and La Nina are two major systems of climate fluctuation when changes in the Pacific atmospheric and oceanic currents take place – warming (El Nino) or cooling (La Nina) of the eastern Pacific Ocean and of air surface pressure in the western Pacific. When neither systems are present, conditions are considered 'neutral' and trade winds blow westward across the Pacific.

Karen says annual variation takes place between the two systems. "But when we get more frequent La Nina events it is an indication we are in a climatic change or climate variability."

Groundwater storage patterns also have a strong link to climate variability. By late December, almost all Southland aquifers, apart from on the coast, were at record lows for the time of year. Karen says this is not necessarily bad as groundwater levels normally drop until they are recharged in April. However, it

would have been a problem if the run of dry weather had continued.

The Council received several reports of people having difficulty with their bores before Christmas, though most of the problems proved to be linked to poor maintenance rather than diminishing groundwater levels. The solution is to get the bore cleaned regularly, Karen says.

"A lot of people interpret a dry bore as a dry aquifer but quite often it's because they are more than 30 years old and haven't been maintained properly."

A bore should be flushed out by an experienced contractor at least once a decade, as it can become inefficient, and even run 'dry', as the casing corrodes and sediments build up around the well screen. The pressure tank should also be flushed regularly, pumps and fittings should be checked for leaks, and water quality should be tested regularly.

Liaison committees looking for new members



Whether you're a farmer, an angler, a business owner or you just live near a river, you're welcome to attend your local catchment liaison committee meeting next month.

Each major river has its own liaison committee, which acts as an advisory group to help Environment Southland decide how the region's major rivers should be managed and maintained. They also consider the proposed annual works plans, which in turn determine the level of rates for each catchment.

Membership of each committee is decided at its annual meeting held during February, and anyone living in the catchment or with a particular interest in the river is welcome to attend.

Catchment Works Supervisor Ken McGraw says that the committees don't have to confine themselves to talking about stopbanks, weed clearance and willows. "There are other topics like water quality, habitat and recreational

opportunities that are of interest to the wider community. We would welcome anyone who wanted to get involved because of their interests in any of the catchments.

Environment Southland recognises the liaison committees as advisory bodies. Although they have no statutory authority, they do wield considerable influence. "It's very unusual for the Council to ignore or decline a request from a river liaison committee," Ken McGraw says.

The annual meeting is also a good chance for people to ask questions, raise issues and learn about what's happening upstream or downstream of their own area.

River Liaison Committee Meetings

- **Oreti River**
Monday 7 February at 10am (morning tea 9.30am)
Dipton Golf Club
- **Mataura River**
Monday 7 February at 1.15pm
Riversdale Hotel
- **Makarewa River**
Tuesday 8 February at 10.30am (morning tea 10am)
Hedgehope Community Centre
- **Te Anau Basin**
Thursday 10 February at 10.30am (morning tea 10am)
Te Anau Golf Club, Waiau Road
- **Aparima River**
Friday 11 February at 10.30am (morning tea 10am)
Otautau Railway Hotel
- **Waimatuku River**
Friday 11 February at 1.15pm
Waimatuku Hall
- **Waiau River**
Monday 14 February at 1.15pm
Waiau Hotel, Tuatapere



More soil moisture monitoring sites will help farmers

Southland farmers will have better information at hand to help them decide when to irrigate dairy effluent to land with the expansion of the soil moisture monitoring network.

Environment Southland is increasing the number of soil monitoring sites from 13 to 19, providing a wider range of information on different soil types and climates throughout the region.

Land sustainability officer Jim Risk says new monitoring sites are going in at Waituna, Dipton Flat, Ferndale, Balfour, Nokomai and in Western Southland.

"It will fill in some of the gaps and provide coverage on a district scale, covering climatic variations and mix of soil types," Jim says. Areas can vary widely in their soil types, for example the Riversdale area, where the range goes from well-drained stony soils on the flood plain to heavier, wetter soils.

The monitoring sites contain Aquaflex soil moisture tapes three metres long buried at depths varying from 5cm to 20cm. These continuously record the moisture status within the soil. Soil temperature is also recorded at a depth of 10cm and rainfall is recorded at each

site. The data is uploaded via modems and transferred twice daily to graphs on the Environment Southland website.

"The whole idea behind it is to help farmers decide when to apply farm dairy effluent or when to store it. This will help better manage effluent so it's not lost to streams and waterways and is kept in the soil and used as a fertiliser," he says.

The colour-coded graph clearly shows the safest times for applying effluent. Red means the soil is at or above "field capacity" and the soil can't hold any more moisture so any effluent irrigation can result in runoff. Orange means the soil has a very small moisture deficit – "the bucket is almost full" - and can only take a small amount of effluent, such as using pulse irrigation at very low rates and depths. Green on the graph shows when soil moisture content is low and effluent can be safely applied using best management practices.

Jim says many farmers already use the information from the soil moisture network and it is particularly useful during the "shoulders of the season" going into spring and late autumn when soils can be very wet for much of the

time. He says the information is a guide, though. It reflects localised conditions so it's a good idea for farmers to compare their situation to the nearest monitoring site.

Jim says farmers can assess if soil is at or near field capacity through doing a field test. "This involves digging up some top soil and squeezing it in your hand. If no free water appears on the soil but a wet outline of the ball is left on your hand, and/or the soil sticks to your thumb when rolled between thumb and forefinger, then the soil is considered at or near field capacity," he says.

An added bonus of the expanding soil moisture network is that it provides more data for Environment Southland scientists, who can use it to improve flood-warning modeling and ground water recharging models.

Jim says he hopes the new sites will be up and running by the "wet end" of autumn. Although most of the new sites are already in place, it can take time for the soil to settle around the Aquaflex tapes to provide fully accurate data. These sites will not appear online until they are fully functioning.



Photos show the soil moisture site at Waituna, and new monitoring equipment being installed.

Everyone benefits from recycling baleage wrap



Cows, farms, the environment, New Zealand's clean green reputation and Southland schools all benefit from recycling baleage wrap.

The alternative – burying, burning or leaving it lying around where stock can eat it and it can get blown onto neighbouring properties, roadsides and waterways – are definitely not good options, according to Pollution Prevention Officer Jodi Thomson.

Jodi says plastic should not become part of an animal's diet but this is what happens when baleage wrap is left lying around. "We hear lots of stories from freezing workers that it appears in the guts of cows. We also hear of it getting ploughed into the ground or burnt."

Ploughing and burning are not recommended, given baleage wrap is harsh on machinery and the wrap doesn't break down within soil. Burning it releases toxins, such as dioxins, which get into the lungs and contaminate air and soils.

Recycling is by far the easiest method of disposing of baleage wrap. Southland has three different options for recycling; Agrecovery, Plasback and Southland disAbility Enterprises. These services do not cost much and wrap recycling is free if dropped off at Southland Enterprises.

When recycling through Southland Enterprises, farmers will also be helping raise funds for a school of their choice, as some of the proceeds from the onsale of baleage wrap is given to schools.

Southland Enterprises manager Ian Beker says the baleage wrap scheme has run for three and a half years and in that time more than \$30,000 has been given to schools. The weight of each farmer's baleage wrap is recorded and credited to their nominated school. When the wrap is sold in bulk, schools, which also collect wrap, get a share of half of the profits.

Jodi says some farmers find it difficult to keep baleage wrap clean for recycling – giving the plastic a shake and then storing it in a dry place until

it is brought in for recycling will keep it clean – but if you do have dirty wrap, Southland Enterprises will take it provided it's in a separate bag.

Recycling the baleage wrap is more than solely about recycling as it involves the big picture of producing environmentally sustainability products and New Zealand's green image. "It's the whole concept of paddock to plate sustainability we are trying to encourage," she says.

You'll find more information on baleage recycling at www.plasback.co.nz, www.agrecovery.co.nz, www.sde.org.nz or contact Environment Southland.



Baleage wrap ready to be sent for recycling.

Reducing risk key to new regional hazard project



A new project sponsored by Emergency Management Southland is set to provide the region with valuable information about the risks to critical infrastructure during an emergency.

The Lifelines project will take the asset information from each utility provider and compare it with known and potential hazards predicting the possible failure areas, or hot spots, in the event of an emergency.

Lifelines Project Manager, Russell Hawkes says the project is seen as essential for providing a snapshot of the level of readiness of utilities and services across the region.

A steering group has been set up to gather and coordinate information on the regions infrastructure and natural hazard risks. The group includes major utility operators, all four Councils, power and telecommunications representatives.

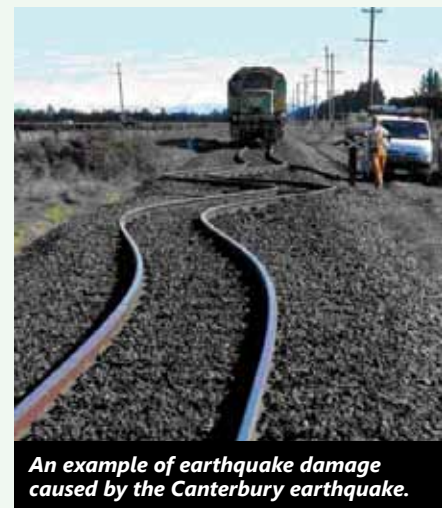
Initial stages of the Lifelines project are about gathering information. "We need information on the important infrastructure and where it is, like bridges, pump stations, cell towers, phone exchanges etc," Russell says.

"Then it will be overlaid on maps and we can apply the information we have on risks from natural hazards such as areas likely to flood, or possible liquefaction risks from earthquakes.

"For example, a pump station, cell tower and a bridge could all be in close proximity to each other, and the land could be a high risk liquefaction area, and we may also know it flooded in the 1984 floods."

This information can then be used by the utility organisations for future planning to mitigate or reduce the risks to their infrastructure, making alternatives. "It should allow them to plan for the recovery following an emergency as well," Russell says.

Emergency Management Southland will also be able to use this information in planning for the most appropriate response to an emergency. "For example, staff can advise the emergency services of alternative routes during a flood if some routes or bridges are susceptible to flooding."



An example of earthquake damage caused by the Canterbury earthquake.



New road safety strategy to help coordinate regions actions

For the first time Southland will have a Road Safety Strategy which has been put together specifically for the region.

Transport Policy Analyst Russell Hawkes said it will be an overarching document that will provide direction for the road controlling authorities, namely the three Councils in Southland.

“At the moment, each council is doing its own thing,” Russell says. “However, changes to the Transport Act gave more importance to regional planning and so a regional transport strategy is required. It means that all the councils’ effort will be going in the same direction.”

Although the strategy won’t directly affect Southlanders in general, the issues that it addresses will filter through to the action plans put in place by the local authorities.



Southland police regularly set up checkpoints to keep roads safe from drinking drivers.

“Issues identified nationally like young drivers, drink drivers and speed for the conditions, will be addressed in the strategy and plans put in place locally to tackle these issues,” Russell says.

Submissions to the strategy are currently being reviewed and a recommendation is likely to be made to Environment Southland to adopt the strategy at their meeting in March.



Strengthening Parenting in Southland a key focus for strategy

A Southland-wide parenting strategy is the ultimate goal of one of several community outcomes projects being run by Our Way Southland. A Leaders’ Forum held in September 2009 in Invercargill identified strengthening parenting as the most important regional issue for Southland.

“The forum was the start of a community-wide discussion about the significance of families and parenting for Southland, when leaders from various sectors of the community identified parenting support as the key issue facing the region”, Community Outcomes Regional Coordinator Dr Aaron Fox says. “Being a parent is an important, complex and challenging task and what parents do can have a significant impact on outcomes for children and ultimately how those children become contributing members of the community. Our Way Southland

is now helping business and volunteer sector representatives and central and local government agencies to work together to identify a way forward with this issue.

The first step towards a regional parenting strategy is to gain information from parents, caregivers and children and young people about what they value about parenting, how they feel the community values parenting, and what they feel they need most to support them.

“We are looking at a range of ways to gather the voices of Southland families, including telephone surveys, focus groups and interviews. By placing the views of local families at the centre of this work, the regional parenting strategy, when developed, should reflect the very real needs of Southland families, rather than policy or service provision issues,” Aaron says.

The Strengthening Parenting project is also looking to survey providers of parenting services in Southland. “As a parent myself, I can see the advantages of having a better understanding of who provides what services and where across the region, and in making this information more accessible.” Aaron says.

He believes that a greater focus on families in Southland will benefit all of the community. “Families are, after all, the building blocks of our society” he says.

If you would like to know more about the current parenting, leadership or youth projects being coordinated by Our Way Southland, you can get in touch with Aaron by calling 0800 76 88 45 or email aaron.fox@es.govt.nz. Information on Our Way Southland is also available at: www.ourwaysouthland.org.nz

The Wai Tri is back

If getting fit was one of your New Year's resolutions, then the Environment Southland Wai Tri Multisport Event could be just what you need to help you reach your goal.

The eighth Wai Tri will be held on Sunday 3 April, which gives you nine weeks to train.

There are six different events so there's something to suit all levels of physical fitness and ability:

- 10km walk (non-competitive)
- novice duathlon
- duathlon
- 10km run
- junior duathlon
- triathlon

The Council organises the Wai Tri every year to raise awareness about the Waihopai River – both as an important part of our environment and as a major recreational asset to the community.

The course is designed around the Waihopai Walkway, which was developed along the stopbanks as part of the city's flood protection scheme following the 1984 floods.

It's simple to enter – clip the entry form and take it to H&J's Outdoor World in Invercargill or post it to us. Entry for most events is just \$10 per person.

Enter by 28 January and be in the draw to win a fitness assessment and personalised training package from Power Point Fitness – there are five to be won.



Win a Wai Tri Early Bird Prize

Kickstart your training for the Wai Tri with Power Point Fitness.

We have five fitness assessments and personalised training packages to give away to people entering either the *Novice Duathlon* or the *10km Run*.

Enter for the draw by texting 021 784964 or e-mailing michele.poole@es.govt.nz by 5pm on Friday 28 January. Be sure to include your name, address, daytime phone number, your age and the Wai Tri event you'll be entering.



Summer walks

The holidays may be over but there's a lot of summer left to enjoy, so the Invercargill Summer Walks Series is back until the end of March.

These free walks take place twice each Tuesday, at 10am and 6.30pm, each one following a different trail. They're designed for recreational walkers, but all participants can choose their own pace – fast or slow – and walk with others or by themselves.

Southlanders are hardy, so the odd rain shower or gust of wind won't stop the walks going ahead. But if you're in doubt, listen to More FM for cancellations.

You'll find full details about each walk on our website www.es.govt.nz and

you can also pick up a brochure with information about these walks and the more challenging 10km+ walks from our office, Sport Southland and libraries.

Upcoming Summer Walks – each Tuesday, 10am and 6.30pm

- **1 February**
Kilmock Bush circuit, Sandy Point
Meet at Fosbender Park (the first turn right off Dunns Rd after crossing the Oreti River)
- **8 February**
New River Estuary
Meet at the Stead St wharf
- **15 February**
Noki Kaik – Petrie's Track, Sandy Point
Meet at the Waterski Club carpark on Sandy Point Rd

Upcoming Regional Walks

- **Sunday 13 February**
Invercargill Surf to City walk
www.surftocity.co.nz
- **Saturday 19 February**
MLT Moonshine Trail
www.moonshinetrail.co.nz





Wai Tri Multisport Event

How to enter

- **Post the completed entry form** and fee to:
Environment Southland Wai Tri, Private Bag 90116, Invercargill 9840
to reach us by Friday 1 April 2011
- **Visit H & J's Outdoor World**, Tay St, Invercargill and enter in-store until Friday 1 April 2011 at 5pm
- **Enter at Environment Southland's offices**, cnr North Road and Price St, Waikiwi, until Friday 1 April at 5pm
- **Enter on the day** at the registration tent, Hollywood Tce Reserve (note that it is more expensive to enter on the day)

We will send you course details and confirmed reporting times when we receive your entry.

.....

Name _____ **Daytime Ph** _____

Address _____ **E-mail** _____

_____ **Male** **Female** **Mixed Team**

Tick 1

<input type="checkbox"/> Triathlon individual	(\$15)	
<input type="checkbox"/> Triathlon team	(\$30)	Team name _____
<input type="checkbox"/> Duathlon individual	(\$10)	
<input type="checkbox"/> Duathlon team	(\$20)	Team name _____
<input type="checkbox"/> Novice duathlon individual	(\$10)	
<input type="checkbox"/> Novice duathlon team	(\$20)	Team name _____
<input type="checkbox"/> 10km Run	(\$10)	
<input type="checkbox"/> Junior duathlon individual	(\$10)	<input type="checkbox"/> Age 7-9 <input type="checkbox"/> Age 10-12
<input type="checkbox"/> Junior duathlon team	(\$20)	<input type="checkbox"/> Age 7-9 <input type="checkbox"/> Age 10-12
<input type="checkbox"/> 10km recreational walk	(\$10)	

I agree to abide by all event rules and instructions. I understand that the Wai Tri is a public event and that I may be photographed while participating, and I agree that Environment Southland may use any such photographs for publicity or promotional purposes.

(Signature required) _____

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 April 2011.

Cover photo: Zane Moss.

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