# Recount



TARANAKI REGIONAL COUNCIL NEWSLETTER

March 2017 No. 104

# lwi test waters

Taranaki Regional Council officers are providing a number of iwi and hapū in the region with training and advice to allow them to monitor the health of waterways.

The monitoring utilises a 'Stream Health Monitoring and Assessment Kit' (SHMAK) developed by NIWA.

An initial approach for assistance came from the region's southernmost iwi, Ngaa Rauru Kiitahi, and others have since expressed interest.

The iwi-based freshwater monitoring initiative is funded by the Ministry for the Environment.



### Freshwater monitoring sees strong gains continuing

### Creatures offer comfort

The ecological health of Taranaki's waterways continues to improve, building further on strong gains in recent years, the Taranaki Regional Council's latest monitoring results show.

"Yet again, we're seeing the best results ever in two decades of monitoring," says the Council's Director-Environment Quality, Gary Bedford.

"Improvements are being seen more broadly every year. Clearly, the regional community is gaining dividends from the significant investments it's been making in environmental protection and enhancement."

Ecological health is the Council's prime measure of freshwater quality and is assessed by examining what sort of tiny creatures are living in waterways. The latest report is based on analyses of samples taken in the 2015-16



The ecological health of waterways is assessed by studying the presence or absence of tiny macroinvertebrates like this Zephlebia.

year at almost 60 sites on 26 rivers and streams across the region, and on trends derived from the results of all sampling since 1995.

Findings include:

• Ecological health is improving at 46 of the

- 53 sites at which changes can be determined that's 87%, the highest percentage to date.
- Sites showing improvements outnumber those showing declines by 6.6 to one, an increase from 5.5 to one in the previous three years and 2.9 to one in 2008.
- 'Statistically significant' improvements are evident at 30 sites, the highest ever recorded and double the number eight years ago.
- Most of the improvements are being recorded in middle to lower catchments of the Taranaki ring plain where intensive farming occurs.
- Sites showing the most improvement are the mid reaches of the Kaupokonui Stream, the Mangaehu River at Raupuha Rd, the lower Punehu Stream, the upper and mid Kapoaiaia Stream and the lower Mangati Stream.

Continued Page 2

### From the Chair

It's clear that freshwater quality will be a muchtalked-about issue in the lead-up to the national elections in September.



Such discussion and debate is generally

welcome. Environmentally, economically, culturally and socially, our rivers and streams are important to us all. Here in Taranaki, we have many achievements to celebrate, but we also have more work to do.

As we report in Recount this month, the ecological health of the region's waterways is continuing to show signs of strong improvement. It's important to note that this is a separate, and regarded as a more reliable, assessment of freshwater quality than simply measuring bacteria levels at particular times.

The community has spent millions and millions of dollars to protect and enhance waterways. Industries and communities (councils) have eliminated or considerably reduced the impact of point-source outfalls, and farmers are fencing and planting thousands of kilometres of streambanks. This Council is also requiring farmers to move to land disposal of dairy effluent. As a result of this ongoing work and investment, the Council expects to see continued improvements in freshwater quality.

However, we can still expect contamination to occur from time to time, particularly after heavy rainfall. This can come from a range of sources including urban run-off, pasture run-off and wildlife. The Council's own DNA sampling has shown that wildfowl are responsible for regular E. coli exceedances at a few monitored sites.

It's also important to note that New Zealand's bathing water quality is among the best in the OECD.

Let's hope the context and realities don't disappear from view as the freshwater debate and discussion continues.

David MacLeod - CHAIRMAN



A copy of this booklet will be sent to every rural box holder in

### New guide for farmers

A plain-English guide to Council requirements for farmers will soon be widely distributed throughout the region.

The 32-page guide covers everything from dairy effluent and streambank protection to earthworks, fertiliser application and use of sprays.

"It's essential reading for those working on the land," says the Council's Chief Executive, Basil Chamberlain. "It brings together in one place, and in an easy-to-understand format, a lot of the measures we've been implementing as a result of all the work and discussion that has gone into the review of the Freshwater Plan."

He says public notification of a new Plan is still on hold pending further changes to resource management law by central government, and because submitters to the Council had asked for more work to be done. "But the guide spells out where we're already making changes on the ground."

A hard copy of the new guide will be sent to every rural box holder in the region, and it will also be distributed among farm consultants and contractors.

Electronic versions will also be emailed out, and the document will be available on the Council's website, www.trc.govt.nz.

### Waterway health improvements

#### From Page 1

• The one significant negative trend is at the upper Katikara Stream, which has been affected by natural erosion events upstream in the recent past.

The technique of assessing the ecological health of waterways by looking at their populations of tiny insects and other creatures is based on a scoring system called the Macroinvertebrate Community Index (MCI), which is recognised nationally and which Council scientists helped to develop in the 1980s.

It is regarded as giving the best picture of the aquatic health of waterways.

The Council also runs separate monitoring programmes to measure the physical and chemical state of waterways, algae levels, and summer recreational water quality at popular swimming spots.

Mr Bedford says the continuing improvements in the MCI scores are most encouraging, as they

might generally be expected to flatten out after strong gains in recent years.

"Many factors are coming into play," he says.
"Implementation of the Riparian Protection
Scheme is in full swing, with thousands of
kilometres of streambanks already fenced and
protected with vegetation. Clearly, our
waterways are already benefiting from this
voluntary effort. And they'll benefit even more
as the scheme moves to completion at the end
of the decade."

There have also been major investments in reducing and cleaning up point-source discharges, and this is continuing with a move to land disposal of dairy effluent.

"So we can expect to see even more improvements," says Mr Bedford.

The Council will report later in the year on the outcomes of other waterway monitoring programmes.



### 'Swim' answers easy to find



'Swimmability' has become a widely discussed freshwater issue. But for Taranaki people wanting to know where it's suitable to swim, there's a simple answer: www.lawa.org.nz or www.trc.govt.nz.

Latest E. coli sampling data from popular swimming sites monitored by the Council during the recreational bathing season from November to March is shown on the Council website and on the Land Air Water Aoteaora (LAWA) website, run as a partnership between regional councils, the Cawthron Institute, MfE and Massey University.

The accompanying table shows Taranaki freshwater results as displayed on LAWA on 23 February, the day the Government announced its target of having 90% of New Zealand's rivers 'swimmable' by 2040.

Both green and orange denote suitability for swimming, so 87.5% of the 16 monitored Taranaki sites are flagged as 'swimmable' on the day. The two 'unacceptable' sites are both regularly in this category and DNA testing of samples has revealed that wildfowl are the source of contamination.

"This result is fairly typical of what we see at freshwater sites over the bathing season," says the Council's Director-Environment Quality, Gary Bedford. "The coastal sites look even better."

He says that while the word 'swimmability' rolls easily off the tongue, the concept is fraught with complications and questions. "A river in full flood and laden with debris after heavy rainfall could never be sensibly regarded as swimmable, no matter what the bacteria levels may be."

He also says it's important to note that E. coli are simply an indicator of a potential risk and not an actual measurement of viral contamination. "The health risk to people from swimming in our rivers changes daily and it is very simplistic to apply a pass/fail label based on historic data. People are more interested in the degree of risk at the time when they want to go swimming."

He says the Council's trend analyses reveal that recreational freshwater quality has been consistently improving in Taranaki over the past two decades. As noted elsewhere in this edition of Recount, the ecological health of the region's waterways (a separate gauge from E. coli, and regarded as more reliable) has also been showing strong improvements.

Mr Bedford says the Council is studying the Government's latest proposals and will make submissions.

"Along with local government and scientific colleagues across New Zealand, the Council has questions about the scientific basis of some of the information that was presented in support of the Government's case," he says. "The information is based on sampling and analyses that have not been undertaken according to long-established guidelines applying in New Zealand and similar countries."

For Taranaki data on LAWA, go to bit.ly/TaranakiSwim

LEFT: Taranaki freshwater monitoring results as shown on the LAWA website on 23 February.



# Flax-finding mission during wetlands day

About 90 people marked World Wetlands Day in February with a public field trip to Waipu Lagoons in Bell Block.

The event was co-ordinated by a number of organisations, including the Taranaki Regional Council. Participants learned about wetlands birdlife, the flax at the lagoons (pictured), Maori history in the area, and the pressures wetlands face.

"The days of regarding swamps as unproductive wasteland are well and truly over. They are the 'kidneys of the land' and are often the most important ecosystems for biodiversity," says Taranaki Regional Council Land Services Manager Don Shearman.

### Networking at a high level

### Land-use options aired at hillcountry field day

"Everyone's winning on a day like this," says Huiroa hillcountry farmer Campbell McCowan.

His comment came at the end of a field day farm tour – right before everyone tucked into fresh steaks and sausages, and continued chatting about farming for profit, land use and soil conservation.

The event, held by the Taranaki Regional Council in February and hosted by the Hansen family at their Matau hillcountry farm, was a drawcard for farmers like McCowan who often work in isolation and find it helpful to talk to those who've walked the path they're taking.

"It's good for you, I guess. Taking the time to network and learn their ideas ... discussing with other people the benefits of utilising the Council's help," he said.

Niels and Peter Hansen, who run two farms in partnership with their wives Grethe and Fiona, have planted poles and fenced marginal land for forestry and reversion with funding from the Council's voluntary South Taranaki and Regional Erosion Support Scheme (STRESS).

The 20 people at the field day viewed that work first-hand and heard the Hansens discuss their land use experiences and choices.

Everyone had their say, pondering the merits and costs of farming marginal land or fencing it for reversion or forestry; and discussing poplars and what assistance the Council could provide.



Some of the farmers at February's hillcountry field day at the Hansen property at Matau.

Agricultural consultant John Stantiall had prepared a cost-benefit analysis for those attending and concluded, as had Niels, that the cost of farming the most marginal hillcountry land is greater than the returns.

The subject resonated with Kupe farmer Murray Jackson, who's seen excellent gains from land he's retired for forestry. In one area alone, he'd lost five cattle over three years before fencing it and planting pines.

"The Regional Council contributed towards the funding, and the income from the trees – I think it just makes so much sense. I've made more money on my waste areas than the good areas I

fenced off. The compensation for waiting for the trees to reach maturity is that you can sell carbon credits."

Niels, too, has lost animals to steep land and used Council funding to fence marginal areas.

"If you lose 10 cattle a year, that's \$12,000 before you've even started to make a profit," he said. "We think it's a good risk to have a block of pine trees, and there might be a really good windfall out of it. It's still potentially more profitable than dagging sheep for 25 years."

Continued on facing page

### Stream work gains urgency

New Government regulations requiring stock to be kept out of waterways bring added urgency to Taranaki's world-scale streamside fencing and planting programme.

The regulations were announced in February by the Minister for the Environment, the Hon Nick Smith. They are yet to be finalised but are intended to be phased in from mid 2017.

"Farmers on the Taranaki ring plain and coastal terraces are well placed to meet this new central government requirement," says the Taranaki Regional Council's Director-Operations, Stephen Hall.

"Nearly all of Taranaki's 1800 dairy farms are covered by riparian management plans, for which 84.5% of fencing and 69.5% of planting has already been implemented.

"That equates to thousands of kilometres of fencing and millions of native plants – a massive effort.

"But this latest Government announcement is a clear signal that the rest should be implemented without undue delay. Completing your streamside fencing and planting will clearly meet future regulatory requirements, be they from central Government or the Council itself.

"And those requirements are inevitable."

Fencing streambanks keeps stock out of waterways and vegetation helps to trap and filter run-off from pasture. Planting provides shading, food and shelter for wildlife and encourages biodiversity in rivers and streams.



Fencing and planting waterways enhances freshwater quality.

All these aspects generally support water quality.

To seek advice on riparian management, call the Council on 0800 736 222 and ask to speak to a Land Management Officer, or email riparian@trc.govt.nz.

The Government also intends stock-exclusion requirements to apply to sheep and beef properties in the hillcountry. Details and implications are still being worked through.

The Minister for Primary Industries, the Hon Nathan Guy, says there are long-term benefits for primary industries and wider economy from the reforms. "Overseas markets and consumers increasingly demand a strong environmental performance over and above regulatory requirements.

"In this context, protecting New Zealand's natural advantage has never been more important.

"No single organisation or group is solely responsible for improving our water quality," says Mr Guy.

"Meeting the target will take a collective effort, but the primary industries have a key contribution to make."

### Land-use options aired at hillcountry field day

#### From facing page

Having fenced off their least productive land, Niels and Peter also found it was a shorter run to subdivide more paddocks, keeping out goats and providing a powerful tool for stock rotation.

Then there's the environmental value. Niels wants to conserve erosionprone hills that can't cope with high numbers of heavy stock, and thinks there will be increased government regulation, especially with the public expectation for clean waterways.

"You can see the (past) damage that we're finding now," he said, showing their guests an exposed gouge on a previously grassy hill-face. "We're not comfortable with that anymore. I want to find ways to mitigate it now."

Council Land Services Manager Don Shearman said with the recent national conversation about intensive farming and water quality, the question has also been asked about what's being done about hillcountry sediment. "The National Policy Statement for freshwater management ... sets the bottom line for water quality, and sediment levels are likely to be addressed (by the Government) in the next couple of years."

He said money from the Ministry for Primary Industries' Hill Country Erosion Fund is delivered through STRESS, which contributes to fencing, poplar and willow poles, forestry, and land retirement or reversion. These measures help with sediment reduction into waterways and often enable a farm to be managed more effectively.

"We want everybody implementing, and taking advantage of STRESS. Eight dollars a metre for conventional fences is no small contribution," said Mr Shearman.

"The Hansens' operation shows what can be achieved through our programme, and highlights what's best for the land and that it makes economic sense from a farm management point of view."

For more details, call the Council on 0800 736 222 and ask for a Land Management Officer, or email hillcountry@trc.govt.nz.



Summertime visitors soak up the atmosphere at Hollard Gardens, Upper Manaia Rd, Kaponga.

### Action stations for Pukeiti plant lovers

Visitors to Pukeiti can easily find more information on plants of interest thanks to an online 'plant hunter's station' giving access to the iconic garden's customised plant database.

The Pukeiti Plant Hunter's Station is online at www.trc.govt.nz/plant-hunters-station/. It has details on all the garden plants and many of the rainforest plants, and plots their locations on an aerial photo. There are photographs of many of the plants, and more are being added.

"Users can search for a particular plant, or pan around the map to see where plants are, and click on individual ones for more details," says Greg Rine, the Regional Gardens Manager. "It's a fantastic way to spread the word about what Pukeiti has to offer."

Pukeiti's new Rainforest Centre, currently taking shape on the site of the old gatehouse and due to open later this year, will feature a public computer with access to the Plant Hunter's Station. Visitors will be able to use it before their walk to check the location of a plant of particular interest, or after their walk to find out more about a plant they have seen.

The plant database is provided by IrisBG. Pukeiti is its first user in New Zealand but it will be expanded to include Hollard Gardens and Tūpare.



#### Upcoming gardens events

Sunday 2 April, 2pm-4pm, Tūpare: Free home gardening workshop – domestic lawn care. Learn about seasonal care for your garden lawns including aeration, dethatching and feeding regimes.

Sunday 9 April, 10am-3pm, Hollard Gardens: Country fair. Celebrate the season's harvest with music and entertainment, delicious food and produce, and arts and crafts. Fun for all the family.

Sunday 14 May, 2pm-4pm, Tūpare: Free home gardening workshop – winter rose care. Your chance to gain tips and advice on winter rose care, including pruning techniques to achieve the best blooms.

Sunday 21 May, 2pm-4pm, Hollard Gardens: Free workshop – caring for backyard bees. All you need to know about bees, including feeding, hive maintenance and protection.

Sunday 4 June, 10.30am-2pm, Pukeiti: Explorer Day – annual bird survey. Take part in our annual survey, learn the sounds of the forest and find out about the food that birds love to eat.



# Minimal change to rates proposed

The Taranaki Regional Council has adopted a Draft Annual Plan that foreshadows a 1% rise in general rates for the 2017-2018 financial year.

The Plan is open for public submissions until Easter, with a finalised version to be formally adopted in May before taking effect from 1 July.

The Council Chairman, David
MacLeod, says the Draft Annual
Plan is largely in line with the 10-year Plan
that was widely consulted on two years ago.

"There are changes to three programmes involving predator control, flood protection for Opunake and the revamp of Pukeiti," he says. "These three matters are the focus of the public consultation."

However, their financial implications are relatively minor.



"They've altered the general rates calculation by half a percent," says Mr MacLeod.

Full details can be found in a Consultation Document, downloadable from the Council website.

Go to www.trc.govt.nz and follow the link to 'Annual Plan consultation'. There you'll also find the full Draft Annual Plan, and an online form for making a submission.

# Port delivers consistent result in challenging trading conditions

A consistent performance by Port Taranaki Ltd resulted in a net profit of \$4.75 million in the half-year to 31 December, up 1.5% on the same period in the previous year.

Total trade volume for the six months was up 6.4% to 2.69 million freight tonnes. While exports were up, import volumes dropped 20% because of weaker demand in the agriculture feed and fertiliser sector.

Company chairman John Auld says the port's mix of trade reflected the continuing volatility in international commodity prices.

"The longer term outlook for Port Taranaki's trade continues to be a challenging one as there are mixed views on a recovery in international dairy and oil prices.

"But we remain committed to providing world-class logistics services for our customers and Taranaki businesses, and supporting our community through our shareholder the Taranaki Regional Council," he says.

A final dividend of \$2.462 million was paid to

the Council in September 2016, which was 10% up on the previous year. An interim dividend for the 2017 financial year of \$2.462 million was approved for payment at the end of February. The dividends substantially help to offset regional rates.

Port Taranaki is New Zealand's only deep water seaport on the west coast, and Chief Executive Guy Roper says its variety of trade – from oil and gas to animal feed and logs – makes it a key strategic export port.

"Although we don't have container trade here at the moment, we have the facilities and expertise to begin operations immediately.

"Our increase in exports and the range of goods we handle show that we have the ability to provide an important service to the container trade by being a feeder to New Zealand's main container export ports.

"We will continue to seek solutions for export customers as we look to make a difference to the Taranaki region and the wider New Zealand economy."

#### Taranaki Regional Council Facts File

Address: Private Bag 713, Stratford 4352

Street Address: 47 Cloten Road, Stratford 4332

 Telephone:
 06 765 7127

 Fax:
 06 765 5097

 Email:
 info@trc.govt.nz

 Websites:
 www.trc.govt.nz

www.taranakibus.info

www.tupare.nz www.hollardgardens.nz

www.pukeiti.nz

www.taranakiplants.net.nz

Twitter: @TaranakiRC

@TaranakiCD @TaranakiRG

Facebook: TaranakiRegionalCouncil

TaranakiCivilDefence

Taranaki Regional Gardens

 Environmental hotline:
 0800 736 222

 Civil Defence freephone:
 0800 900 049

 NP bus information:
 0800 827 287

 Total Mobility:
 0800 868 662

#### **REGIONAL COUNCILLORS**

#### **New Plymouth Constituency:**

 Tom Cloke
 06 753 5586

 David Lean
 06 753 3325

 Charlotte Littlewood
 027 354 5330

 Bev Raine
 06 757 5825

 Craig Williamson
 027 687 4122

#### North Taranaki Constituency:

Mike Davey 06 756 7126 Donald McIntyre 06 762 4701

#### South Taranaki Constituency:

Michael Joyce 027 494 8975 David MacLeod (Chair) 06 278 5577 Neil Walker 06 278 7541

**Stratford Constituency:** 

Matthew McDonald 027 481 4648

#### MEETING SCHEDULE

Venue (unless otherwise stated): Council chamber, 47 Cloten Rd, Stratford.

Monday 3 April, 9am: Ordinary Council meeting (Venue: Hollard Gardens, Kaponga).

**Tuesday 2 May, 9.30am:** Consents and Regulatory Committee.

**Tuesday 2 May, 10.30am:** Policy and Planning Committee.

**Monday 8 May, 10am:** Executive, Audit and Risk Committee.

Monday 8 May, 11am: Ordinary Council meeting (submissions on Annual Plan).

**Tuesday 16 May, 10.30am:** Ordinary Council meeting.

See www.trc.govt.nz/meetings/ for agendas and minutes, and www.trc.govt.nz/meetings-schedule/ for any last-minute schedule changes.

### Getting a taste for real science

Students love interacting with the environment, says Kevin Archer, and he should know – he's been teaching for 45 years.

As the Taranaki Regional Council's Education Officer for the past 12 years, he says students plunge into the Council's hands-on schools programme, with freshwater stream studies being his most popular lessons year-round.

"I haven't met a kid who doesn't like this – thousands of them. They all love going into the stream. This is the real McCoy," says Mr

Towards the end of last year he led several Highlands Intermediate School classes at Huatoki Stream. He explained how settlers and nearby schools used the stream, and why the Huatoki isn't typical of most Taranaki rivers.

Then it was down to business, with lessons on gauging streambed composition and streambank vegetation, and the water's flow, clarity, conductivity, pH (acidity) levels and temperature. "Ten to fifteen degrees is what fish like," he told his young listeners.

Finally, the students gathered riverbed samples.

"The presence or absence of tiny river bugs tells us an awful lot about the quality of the water in the stream, and the other day we found 17 different species at the site, which is a record for me," says Mr Archer. "There's a move in science involving the community in getting scientific data. It's called citizen science, so this is a stepping stone towards that."

Science specialist teacher Pat Swanson is a firm advocate of Mr Archer's classes.



Kevin Archer and Highlands Intermediate students assess water clarity at the Huatoki Stream.

"Kevin's a great facilitator for this. He's enthusiastic, he's got a lot of knowledge. It's a programme that he's refined over the years ... and he gets the kids involved," says Mr Swanson, who teaches at Highlands Intermediate School.

"It's learning in action, and kids learn and observe a lot more when they're out there doing that.

"Once they start getting in there and looking at the animals and that, they're super-engaged, and they're starting to recognise that they're doing things that scientists do all the time – looking for explanations, testing, making observations ..."

Mr Archer's field trips are held at rocky shores, riparian fencing and planting projects, streams, and Pukeiti, Tūpare and Hollard Gardens. His theory classes cover those subjects as well as Civil Defence, public transport and various environmental topics.

For details about the Council's schools programme, go to www.trc.govt.nz/schools-programme/ and to book Kevin Archer well in advance for lessons or field trips, email education@trc.govt.nz



Under the guidance of Taranaki Regional Council Education Officer Kevin Archer, Highlands Intermediate students sort through the invertebrates, or tiny river bugs, found in the Huatoki Stream.

#### Join in the conversation



Taranaki Regional Council Taranaki Regional Gardens Taranaki Civil Defence Taranaki Public Transport



Taranaki schools environment group



@TaranakiRC (Council)
@TaranakiRG (Gardens)
@TaranakiCD (Civil Defence)



TaranakiRC