



Water investment essential

More than \$30m will be spent by Bay of Plenty Regional Council on science, restoration and policy work to protect and improve the region's waterways this year.

Bay of Plenty Regional Council Chairman Doug Leeder said that the region's waterways are in good shape by national standards, but there's more work to do to ensure clean, healthy waterways for the next generation.

"We've made real gains in protecting water quality in recent years. But the cumulative effects of land-use change are still surfacing, and the water management challenges we're tackling are becoming increasingly complex. Science and innovation, along with compromise and investment from all sectors, will be crucial to securing clean, reliable freshwater in the long term," he said.

Council's water work this year includes helping landowners to pinpoint and treat problem E.coli bacteria sources, trial nutrient budgeting methods, and to fence and plant an additional 101km of waterway margins throughout the region. Farm animals are already excluded from more than 75 percent of the region's waterways.

Investment is also being channelled into science and computerised modelling work that will be used alongside input from local councils, iwi, community groups and industry stakeholders to set new catchment-specific water management rules and methods under the Regional Water and Land Plan. Public consultation on proposed plan changes for the Kaituna Maketū, Pongakawa Waitahanui and Rangitāiki catchments will start in 2018.

At 155km long, the Rangitāiki River is the region's longest river. Regional Council is working in partnership with the Rangitāiki River Forum to protect and restore tuna (eel) habitat and, with funding assistance from Ministry for the Environment, restoring 206 hectares of wetlands, in the Rangitāiki River catchment.

Work is also planned to restore 20 percent of the Kaituna River's freshwater flow back into Te Awa o Ngatoroirangi/Maketū Estuary and recreate 20 hectares of wetlands. The project aims to restore the health and mauri of the estuary that has suffered since the river was diverted away in 1956.

Around Tauranga Moana, 16 sub-catchment action plans are being delivered to improve water quality, in partnership with iwi and local councils. More than 90 percent of waterway margins that drain into the Tauranga Harbour are now protected from stock access.

Water quality improvements for the Rotorua Lakes are also being targeted. A new online system to track nutrient discharges is being built and Rotorua farmers are being assisted to put nutrient management plans and resource consents in place under proposed new nutrient management rules (Plan Change 10) to improve water quality in Lake Rotorua.

The online tool will complement Regional Council's work on in-water treatment trials, weed removal and voluntary incentives that



Council's water work includes supporting landowners to protect and restore waterway margins through fencing and planting.

promote low nitrogen land-use, such as forestry and alternative cropping, to deliver further water quality improvements under the Rotorua Te Arawa Lakes Programme.

For more information about Regional Council's work to care for water, see www.boprc.govt.nz/freshwaterfutures

Visit www.boprc.govt.nz



Local voices inform Council plans

Seventy Bay of Plenty people from all walks of life have been working through the challenges of freshwater management for their catchments this year.

They're members of three Freshwater Futures community groups that have been meeting regularly over the past 18 months to provide advice to Bay of Plenty Regional Council about how water should be managed in each of the Kaituna Maketū, Pongakawa Waitahanui and Rangitāiki catchments.

"We're helping Regional Council to identify community values for freshwater and test their thinking as they work towards implementing central government's National Policy Statement for Freshwater. Our input will be reflected in a package of draft plan changes that will be shared for wider public consultation next year," said local dairy farmer and keen water-skier, Larry Wetting who chairs the Rangitāiki group.

Group members include tangata whenua, fishermen, farmers, growers, local residents, kayakers, councillors, environmental advocates, and community volunteers. Most live and/or work within the catchment (also called a Water Management Area) that they've

been discussing.

Te Puke kiwifruit grower and avid fisherman, Barry Roderick, who chairs the Kaituna Maketū group, said that his group has gelled really well together.

"We all come from vastly different perspectives. I thought the conversations about what's acceptable in our waterways might be harder but it didn't take us long to all agree that we want clean waterways we can swim in. The challenge will be working through what costs and compromises it's going to take to achieve that," Mr Roderick said.

So far, group members have told Council what they value about local fresh waterways, how they use water, and what their expectations for in-water state, use and access are.

Input from the groups, iwi, Te Maru o Kaituna River Authority, Rangitāiki River Forum and the Regional Water Advisory Panel will inform recommendations to Regional Councillors and the wider public about how water quality and quantity could best be managed in the Rangitāiki, Kaituna/Maketū, and Pongakawa/Waitahanui catchments.

Mr Roderick has lived beside the Waiari Stream all his life. He said that his love of

the local waterways runs deep, but he's also a kiwifruit grower and understands the needs of industry.

"I've fished and swum here since I was a kid, and still do. I fish for whitebait in the Kaituna River, trout in the Waiari Stream, Mangorewa and Kaituna rivers, and catch eels in the Waiari. Through Fish and Game, I've been involved in caring for the Lower Kaituna wetland for more than 30 years, and I count ducklings in the Kaituna drainage system every year.

Over time I've seen a vast reduction in point source discharges in the Kaituna catchments. There's much less pollution coming out of direct dairy and industry discharges. It's now the diffuse nutrient sources that need to be looked at; the nutrients and other pollutants that go onto the ground and are flushed through to the waterways when it rains," Mr Roderick said.

At their sixth workshops, held recently, the three groups each discussed current and likely future land use practices in their catchments. The information provided by the groups will be used by Council alongside science, industry and other information to estimate how much nutrient, phosphorous, sediment and other contaminants are likely to enter waterways under different management regimes. The groups also started to discuss potential management options to reduce the likely impacts of land use on waterways.

Mr Roderick said that the Kaituna Maketū community will need to pull together to tackle some key challenges ahead.

"There's likely to be increased urban run-off and water consumption from Papamoa East developments and a push for farmers and growers to adapt their management practices so nutrient run-off from kiwifruit and farming activities is reduced," he said.

Mr Wetting said that he's looking forward to presenting a set of recommendations from his group to the Regional Council next year.

"There's also a growing awareness in the Rangitāiki community that everyone will need to step up and take responsibility for protecting and improving our waterways.

We know that nutrient limits, water metering, and tighter restrictions on water takes are probably coming for farmers. The group has



Rangitāiki Fresh Water Futures Community Group Chair Larry Wetting (right) and one of the group members Nick Doney beside the Rangitāiki River.

also raised concerns about urban sewerage schemes, eel passage across the dams, and flood management; those concerns will take a mix of public and private investment to resolve. Another thing to think about is the future of forestry in the catchment; 45 percent of the land area is currently in production pine forest, if that's converted to something else in future then water demands and impacts are likely to change as well," he said.

For more information about the Freshwater Futures community groups and to subscribe to Freshwater Flash email updates, visit www.boprc.govt.nz/freshwaterfutures



Rangitāiki Community Group members discussing possible changes to future land use.

Understanding aquifers

New frontiers in subterranean science are being explored through expansions to Bay of Plenty Regional Council's groundwater science programme.

Regional Council groundwater scientist, Raoul Fernandes, said that council and other scientists have been studying the region's groundwater (aquifer) networks for many decades.

"Data from 76 monitoring bores across the region has provided us with a good understanding of the basic structures, behaviour and health of the region's main aquifers. But groundwater systems are complex and there's always more to learn so we've installed 42 new groundwater monitoring bores in recent years and have 14 more being installed over the next four years.

We're also building computerised models that will provide better predictions about groundwater impacts and flows for locations where data isn't available," Mr Fernandes said.

Groundwater allocation decisions by Regional Council are currently based on generic default values for groundwater recharge, and the best available information at the time.

Groundwater recharge is the proportion of rainfall that filters into the ground and replenishes groundwater aquifers. Some rainfall is lost through evapotranspiration from plants, some runs off the land into lakes and rivers. Remaining rainfall filters into the ground and

recharges our groundwater systems.

Some groundwater systems are directly connected to above-ground rivers and streams, while others are isolated (confined) by layers of impermeable rock or soil. Spring-fed rivers and streams are likely to be sensitive to abstraction from groundwater during periods of low rainfall and reduced groundwater flow.

"It's not practical to drill bores in every part of the region to understand the geology of a groundwater catchment, or to physically examine everything that happens underground. Instead we're selecting key sites for data collection and building models help fill in knowledge gaps so we improve our understanding of the complex dynamics of each specific groundwater system. We started work to develop local groundwater models last year. We expect a model for the Kaituna Maketū and Pongakawa Waitahanui catchments to be ready for use early next year. A model for the Rangitāiki catchment is scheduled for completion in early 2019.

The models will help to better inform choices in setting limits to sustainably manage the region's freshwater resources," Mr Fernandes said.

New catchment-specific limits and rules for water allocation will be set in the coming years through Regional Council's work to involve communities in implementation of central government's National Policy Statement for

Freshwater by 2025. The Kaituna Maketū, Pongakawa Waitahanui and Rangitāiki catchments are the first catchments being worked through, with public consultation on associated changes the Regional Water and Land Plan scheduled to start in autumn 2018.

Find out more at www.boprc.govt.nz/freshwaterfutures



Example of groundwater spring flowing into a Bay of Plenty stream.

IN BRIEF

MARCH HEARINGS FOR WATER QUANTITY PLAN CHANGE

Bay of Plenty Region-wide Water Quantity Plan Change (Plan Change 9) hearing dates are now confirmed for 14–16 March 2018.

The first two days will be held in Tauranga at Bay of Plenty Regional Council offices on First Avenue and the third day will be at Eastbay REAP in Whakatane. See further details at www.boprc.govt.nz/waterquantity

CONSENT EXPIRY CHECKS

Regional Council compliance staff are reminding water users to check the expiry date on their water take consents, and make sure they lodge their application for a replacement consent at least six months before their old consent expires.

“It’s important that existing users, who want to continue to take water, lodge their applications on time so they secure their legal right to keep using water while their new application is processed. It’s also really important to check what information you’ll need and allow enough time to gather all the technical detail the Resource Management Act requires, so that your application can be deemed complete and accepted for processing on time.

There’s no automatic renewal process and late applications can result in extra processing costs, time and loss of your existing user status,” said Bay of Plenty Regional Council Regulatory Compliance Team Leader Steve Pickles.

Help is only a phone call away for consent holders who need advice about their expiry date or the application process. Call

0800 884 880 and ask to speak to the Duty Consents Planner if you require assistance.

\$3 MILLION FOR RANGITĀIKI WETLANDS

Ministry for the Environment has committed \$1.5 million over five years toward a new Rangitāiki River wetland restoration project near Galatea. Bay of Plenty Regional Council will match that funding.

The project aims to restore 206 hectares of wetlands between Murupara and Lake Aniwhaniwa. The wetlands will provide tuna habitat and restore native vegetation, river health and improve biodiversity values in six High Value Ecological Sites. It also contributes to implementation of Te Ara Whanui o Rangitāiki, the Rangitāiki River Strategy.

HAZELNUT CROPS FOR LOW NITROGEN LAND USE TRIAL

A project to assess the viability of hazelnuts as a commercial tree crop within the Lake Rotorua catchment is now underway. The project has been funded by the Rotorua Te Arawa Lakes Programme Low Nitrogen Land Use Fund which has been established to test innovative ideas for land use change so that water quality in the Rotorua lakes can be improved.

Two hazelnuts varieties (Jefferson and Tonda Romana) that are relatively new to New Zealand have been planted together with pollinating varieties.

The main crop trial site is at Tikitere, but a number of landowners across the Lake Rotorua catchment have also been provided with trees in return for monitoring their



Hazelnut planting.

growth and yield. The project will run for five years and aims to assess how well hazelnuts grow in the various microclimates of the Lake Rotorua catchment.

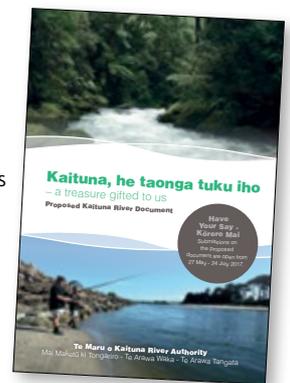
In another initiative to improve Lake Rotorua water quality, the \$40 million Rotorua Lakes Incentives Scheme has now opened to all landowners in the Lake Rotorua catchment. The scheme has a set amount of money available to buy nitrogen discharge from landowners that are considering or have already made land use changes to reduce nitrogen run-off from their properties, and are willing to have the Nitrogen Discharge Allowance for their property permanently reduced.

Visit www.rotorualakes.co.nz/incentives or contact Jude Pani at Jude.Pani@boprc.govt.nz, phone 027 456 1504 to find out more.

KAITUNA RIVER DOCUMENT DELIBERATIONS

Te Maru o Kaituna River Authority received presentations from 26 submitters to the Proposed Kaituna River Document, during August hearings. A total of 62 submissions were lodged, from a wide range of sectors including iwi, conservation, recreational user and special interest groups, as well as individuals with a general interest in the river.

Te Maru o Kaituna River Authority is now considering what changes should be made to the document as a result of submissions, before releasing a final version in 2018. See www.kaituna.org.nz for more information.



One of the Rangitāiki wetlands that will be restored.