newzealand.govt.nz

Delivering Freshwater Reform

A high level overview

Fresh water is our greatest natural asset. It is crucial to our way of life, our environment and our economy. We value it for recreation and spiritual wellbeing. Māori regard it as a taonga of paramount importance. Whether you live in the city or the country, water sustains the industries that create our wealth. Water quality matters to all of us. Here is what New Zealanders need to know about improving the way we manage our fresh water.

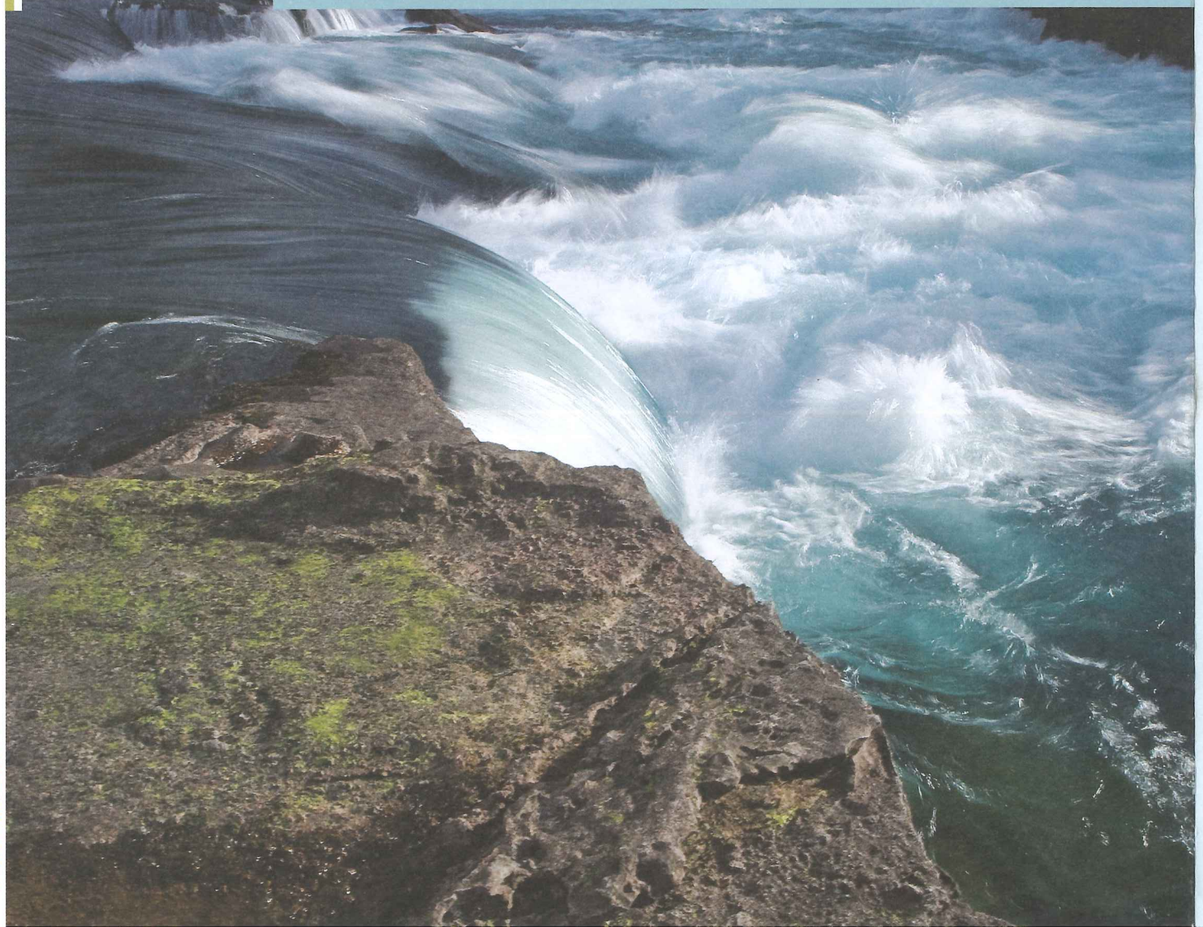


PHOTO: NIWA, Dave Allen

Our water

New Zealand has plentiful fresh water

145 million litres per person per year

Canada	→	**82** MILLION LITRES
Australia	→	**22** MILLION LITRES
United States	→	**9** MILLION LITRES
China	→	**2** MILLION LITRES
United Kingdom	→	**2** MILLION LITRES

SOURCE: Statistics NZ 2011, World Bank 2013

Average annual rainfall by region

West Coast	5.5 m
Tasman	2.8 m
Southland	2.7 m
Gisborne	2.5 m
Bay of Plenty	2.5 m
Taranaki	2.2 m
Wellington	2.2 m
Northland	2.0 m
Waikato	1.9 m
Hawkes Bay	1.9 m
Manawatu	1.9 m
Auckland	1.8 m
Marlborough	1.8 m
Nelson	1.8 m
Canterbury	1.6 m
Otago	1.4 m
New Zealand	2.3 m

SOURCE: Statistics NZ 2011

New Zealand has...

425,000 km OF RIVERS AND STREAMS

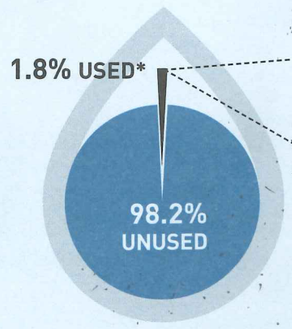
4,000+ LAKES

200+ AQUIFERS

SOURCE: MFE 2007

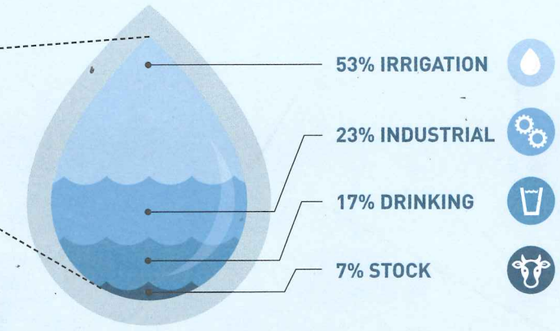
How much water we get

608 billion m^3 (annually)



How we use water

11 billion m^3 (annually)

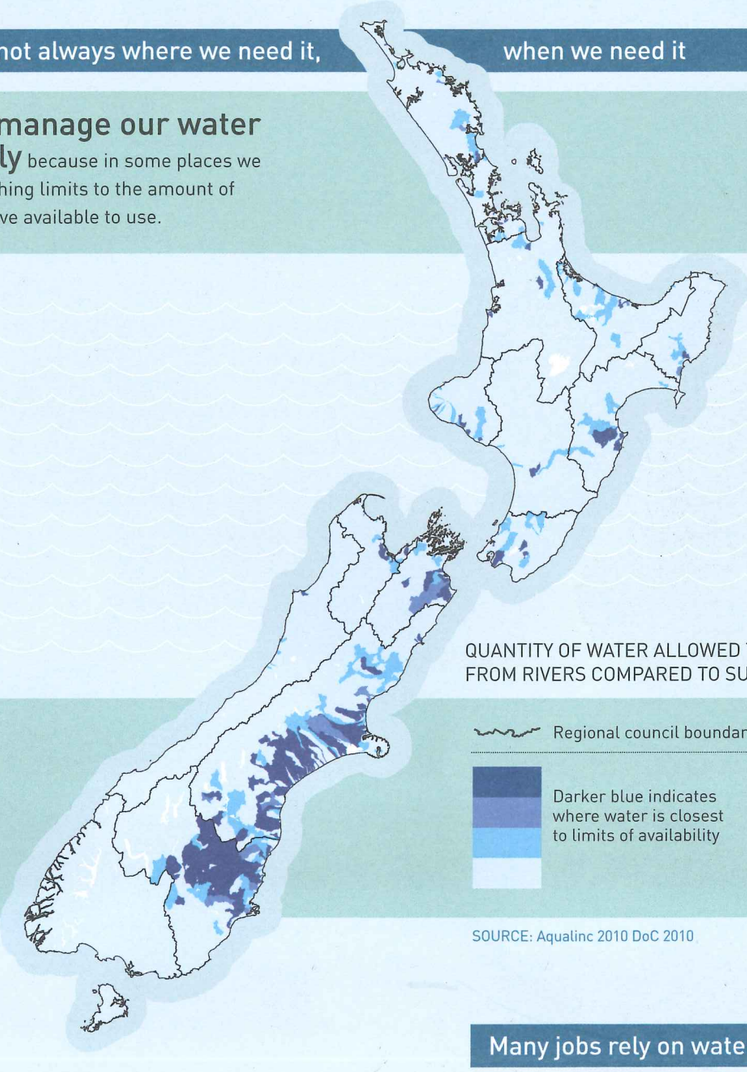


**Excludes hydro-generation* SOURCE: Statistics NZ 2011, Aqualinc 2010

Our water

Water is not always where we need it, when we need it

We need to **manage our water carefully** because in some places we are approaching limits to the amount of water we have available to use.



QUANTITY OF WATER ALLOWED TO BE TAKEN FROM RIVERS COMPARED TO SUMMER (LOW) FLOW

Regional council boundaries

Darker blue indicates where water is closest to limits of availability

SOURCE: Aqualinc 2010 DoC 2010

PHOTO: MFE

PHOTO: MFE

Many jobs rely on water

45,000 *employed in* **DAIRY INDUSTRY**

50,000 *employed in* **HORTICULTURE**

110,000 *employed in* **TOURISM**

SOURCE: Industry 2014 and Statistics NZ 2013

Together we'll achieve productive and sustainable use of our fresh water now, and for future generations.

More detailed information on the freshwater reforms in this report is on the Ministry for the Environment website www.mfe.govt.nz

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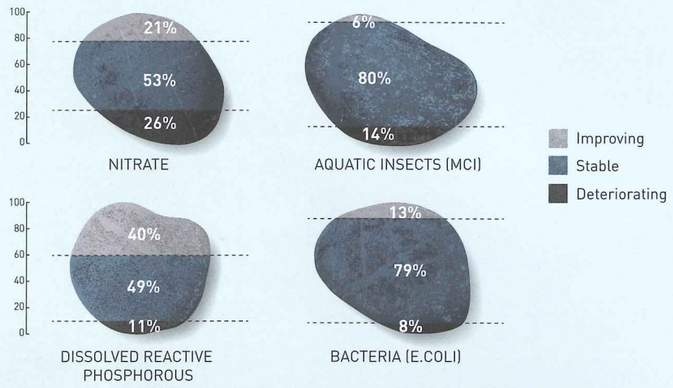
Publication number: INFO714
July 2014

Our water

New Zealand river condition trends

SUMMARY OF 10-YEAR TREND ANALYSIS

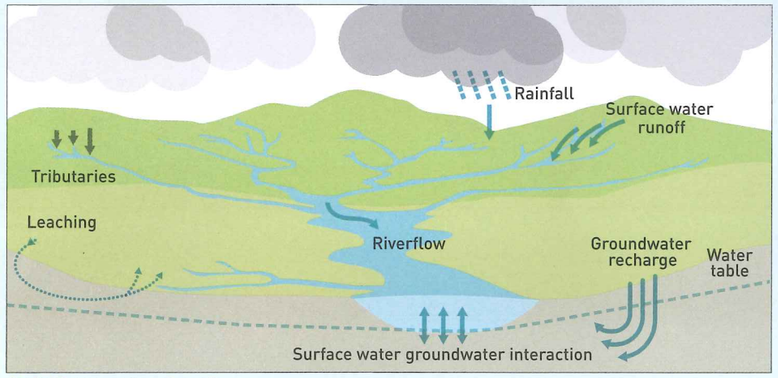
SOURCE: MFE 2013



Our water quality is generally good by international standards

SOURCE: OECD, Yale University, World Bank

The water system



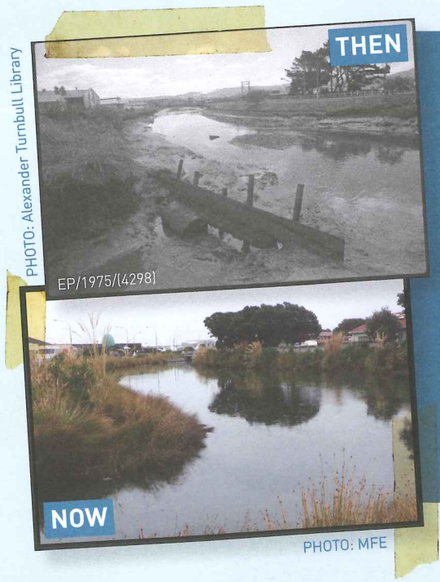
SOURCE: Adapted from DairyNZ

We all have a role in improving our water quality. What we do on land affects our water. All water in a catchment is connected. This means nutrients in groundwater have the potential to enter surface water and vice versa.

140 YEARS of intensifying human use.

EVEN IF WE **STOPPED** **all activity today** it would take

80+ YEARS for nutrients and pollutants to work through the system in some catchments

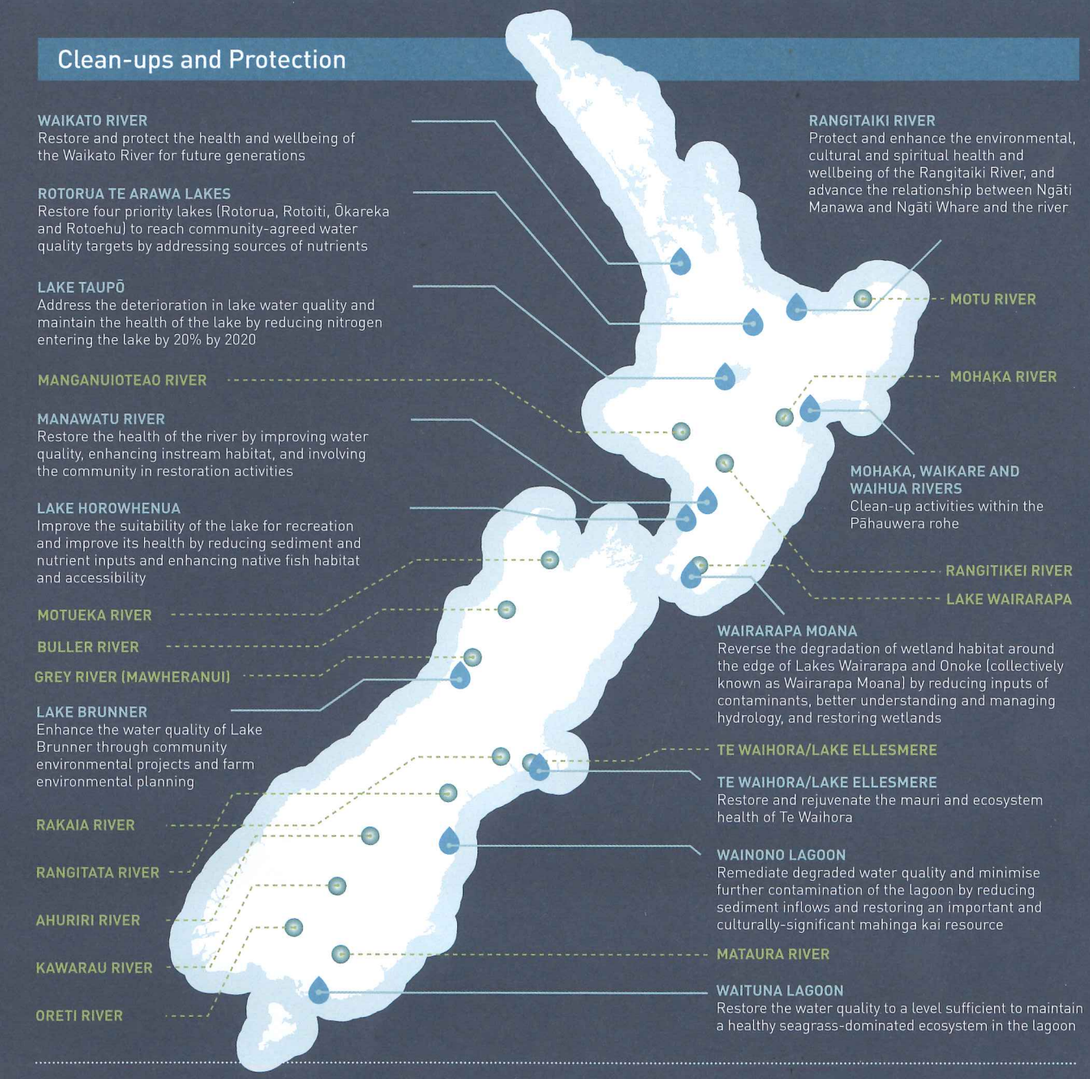


Today our lakes and rivers are showing the effects of activities that happened decades ago. We haven't always been careful about how we use our land and water.

Photos (then & now): Waiwhetu Stream, Lower Hutt

What's been done

Clean-ups and Protection



Since 2000, New Zealanders have committed about **half a billion dollars** through taxes, rates and private and voluntary initiatives to clean up and protect our lakes and rivers.

Since 2010, fresh water taken directly from its source has to be gradually metered so we **know how much we're using**.

Iwi/Māori are playing an integral role in conserving and protecting our natural taonga. As Treaty of Waitangi partners, we are working together towards a fresh water management system that benefits all New Zealanders.

Since 2011, regional councils **must 'maintain or improve' water quality** by setting limits on what can be taken from or discharged into water.

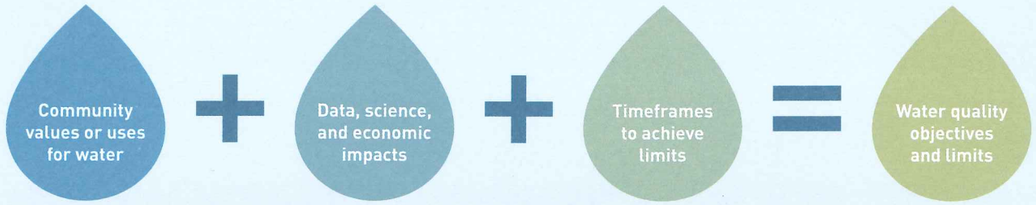
We're getting results: the Rotorua Lakes water quality is stable and improving. Lake Taupō's nitrogen reduction is nearly complete - 4 years ahead of target.

What's being done now

If our system of water management is to sustain us into the future we need to be smarter and more sophisticated about how we use our water. This is essential to protect te mana o te wai – water's most important intrinsic qualities.

The Government has directed regional councils to maintain or improve overall water quality in their region.

Now, it's helping them do this by supporting communities to make decisions, plan and set freshwater objectives and limits:



We need **better monitoring and more consistent data** on the state of our water. Councils need better information to support their regional plan making decisions.

Although we all agree that clean water is important, there are many different views about what this means and how we can achieve the water quality we want. **Scientific information is critical, but it cannot resolve conflicts over values** or decide what trade-offs or choices are worth making. Science can't tell us who should bear the costs or benefit from these decisions.

That's why we asked both scientists and water users for advice on a **national objectives framework** to give us:

- a common language and starting point for these difficult community conversations on water
- a consistent way of setting freshwater objectives in regional plans
- national bottom lines for water quality. This means that, for the first time, rivers and lakes will have minimum states that must be achieved over time so all our water bodies are suitable for ecosystem and human health.

This diagram shows an example of how the national objectives framework will work for the human health value and E. coli bottom line. The four states A – D guide the setting of freshwater objectives for human health in a river. Regional councils will set measurable freshwater objectives within A – C that maintain or improve overall water quality.

National Objectives Framework

VALUE	ATTRIBUTES	STATES (Freshwater objectives)
Human heath	E.Coli *(bacteria)*	A Suitable for swimming
	Cyanobacteria – Planktonic *(toxic algae)*	B Generally suitable for swimming
National bottom line		C Suitable for boating and wading
		D Unacceptable risk to human health

What needs to be done next

The **community will work together** to decide what's best for its region. The specific circumstances of local users and the economic, environmental and social effects of rules and limits on the region will all be part of the mix. This will result in greater understanding, wider agreement, and better, longer-lasting decisions.

We've made good progress, but there is a lot more work to do.

We will explore how we can manage within water quality and quantity limits by considering:

- ways to get greater economic benefit, without degrading water quality
- how to allocate water fairly, efficiently and sustainably
- how permits to take and discharge to water are allocated and transferred

Central government, regional councils, scientists and sector groups are continuing to build our information base, through better monitoring and targeted research.

Industries are working to improve their management practices.

Regional councils can apply for more funding for community water quality projects.

Central government will work with councils, communities and iwi to explore how New Zealanders can use water more efficiently.

Regional councils have already started revising their regional plans to include what their communities want their water to be managed for and the quality and quantity limits needed to achieve it.

It is important to be realistic about timeframes. Setting freshwater limits will have long-term impacts. Communities will need to understand what their choices around water will mean for existing businesses and future opportunities. Not everything can or will happen right away.

When these changes are in place New Zealanders' values will be reflected in the management of water:

- water quality will be protected within healthy limits for humans and ecosystems
- decisions about who gets what water will be mostly made without having to go to the courts
- iwi rights and interests in water continue to be addressed
- freshwater ecosystems and habitats will be protected and restored and our unique native freshwater animals and plants will thrive.

PHOTO: NIWA

PHOTO: NIWA, Brian Smith & Steph Parkyn

PHOTO: Environment Canterbury