

Freshwater quantity

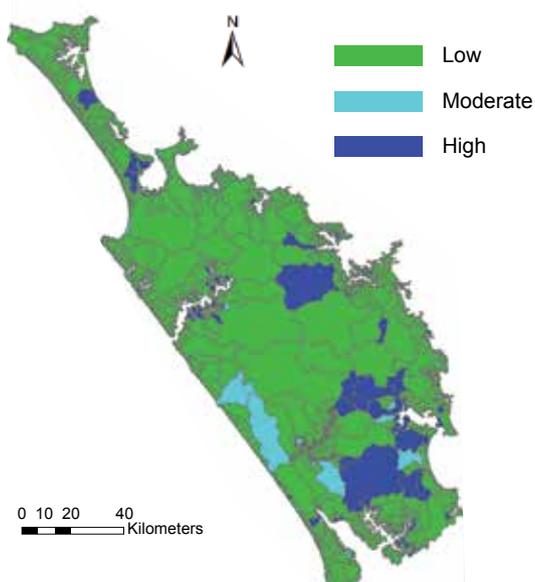
Managing Northland's water resources, both above and below the ground, is a real balancing act.

Our need to use water must be weighed up against the environmental impacts of taking it, like preserving the life-supporting capacity of our aquatic ecosystems.

To help manage demand versus availability and ensure fair use of our water, the Northland Regional Council oversees how our water is allocated around the region and how much is being used.

Pressures on freshwater quantity

The main pressure on our freshwater quantity is demand – each drop of water we take is one less for someone (or something) else that may need it.



Allocation levels for Northland catchments – areas of high allocation will be the focus for future water use and hydrology investigations.

Several of Northland's surface water catchments have relatively high levels of allocation. Uses include irrigation, town water supplies and industry.

"Allocation" means how much water is committed for use while still leaving a minimum flow amount in rivers and streams.

Low water levels during dry periods can have negative impacts on aquatic life and cause degradation of water quality.



At a glance

- On average, over 590,000 cubic metres of freshwater each day is allocated to be taken across the region under more than 500 resource consents.
- Irrigation is the main water use in Northland, making up about half of the total volume allocated.
- Continuous river flow data is collected at 95 sites across the region, and 88 groundwater sites are regularly monitored.
- Several of Northland's catchments are highly allocated with this bringing the potential to cause environmental issues during prolonged dry periods.



The major pressures for Northland's groundwater are reductions in quantity – through pumping, land use and climatic changes – and inappropriate bore construction.

To get maximum value and enjoyment from our precious freshwater resources and protect its ability to support life, it's important that water is used efficiently and fairly.

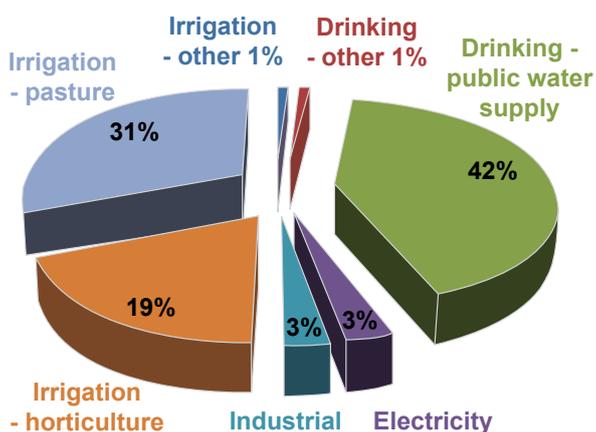
State of our freshwater quantity

Each day, roughly 542,000 cubic metres of water is allocated from Northland's surface water bodies and 48,000 cubic metres from groundwater – together enough to fill 236 Olympic-sized swimming pools.

The volume of surface water allocated has increased slightly since 2007, when it was at 500,000 cubic metres a day.

The water takes are allocated under 268 surface water consents, 252 groundwater consents and 4473 registered bores.

So where does all this water go? Half of it is used for pastoral and horticultural irrigation, town water supplies account for 42%, and 6% is taken for industrial use.



How water is used – total water takes by volume

Water quantities are largely driven by rainfall. Rainfall patterns in Northland from 2007-2011 were variable, with below-average rainfall levels in 2009 and 2010, and above-average rainfall levels in the other three years.

There were two severe droughts over the reporting period – November 2009 to May 2010, and October 2010 to January 2011. During these, the council provided advice, monitoring and reporting to major water users and the public, and managed consent compliance. Four water shortage directions were issued by the council during the reporting period, to ensure continued availability of public water supply.

What is the Northland Regional Council doing?

The Regional Water and Soil Plan for Northland has rules to help manage water quantity. These control the use of water extraction, damming and diversion. The plan also specifies rules for taking, using and diverting groundwater.

The council manages and monitors resource consents for water takes, above ground and below, to ensure water is being allocated fairly.

We monitor groundwater levels at 88 sites across the region, monitor river flow data at 95 sites and have assessed the likely allocation levels in our surface water catchments – all to enable us to better manage our freshwater resources. We also make up-to-date rivers and rainfall data information available via our website.

Our Waiora Northland Water programme looks at water quantity across the region – along with water quality – and works with communities to set targets for how our water should be used.

What you can do

- Look for ways to reduce your household water use
- Harvest rainwater for watering your garden
- Assess whether your dairy shed water use is efficient (it could also reduce your effluent storage requirements)
- Monitor your irrigation requirements using soil moisture probes.

For more information about Waiora Northland Water, visit www.nrc.govt.nz/waiora

