

Water Supply

Purpose

A reliable and high-quality water supply to Kaipara district's reticulated areas is essential for communities and local economic development.

Public water supplies ensure communities receive water at the cost of production. Our water supply activities also protect and enhance our natural assets and open spaces.

Legislation associated with this service

- Local Government Act 2002
- The Health (Drinking Water) Amendment Act 2007
- Drinking-water Standards for New Zealand 2000 and 2005
- Resource Management Act 1991.

Risks and Issues

- Dargaville water supply has drought risks and the security of supply for Dargaville is challenging during dry years.
- Supplying raw water to customers for pastoral uses is a risk, and if incorrectly used as drinking water without appropriate treatment, it may result in public health issues.
- The renewals programme is still based on affordability and condition assessments. Our water supply assets are generally in poor shape with older schemes which are nearing the end of their effective lives and need renewal. Renewal costs will be high and must be done in a planned and affordable manner. Some small communities serviced by old schemes and the small Mangawhai scheme may find the renewals required unaffordable, and
- Asset knowledge (mainly pipes) is mixed and we risk unforeseen asset failure.

How we fund this Group

- Targeted rates
- Fees and charges
- Development contributions
- Financial contributions
- Borrowing
- Asset sales, and
- Lump sum contributions.

What we do

We operate five community water supply schemes for Dargaville (including Baylys), Glinks Gully, Ruawai, Maungaturoto and Mangawhai (mostly supplying the Mangawhai Heads Holiday Park and the Woods Street commercial precinct) giving them a sustainable drinking water supply.

We own and maintain the whole water supply network for the five schemes. We treat raw water to produce quality and quantities of drinking water to drinking water standards (potable); and distribute treated water to the point of supply to customers to meet specific flow, pressure and quality standards. This includes water for emergency firefighting services for Dargaville's urban area.

We also undertake

- customer services

- water billing
- asset management
- planning
- treatment plant operations and maintenance
- network operations and maintenance
- capital and refurbishment programme; and
- consent monitoring and compliance.

Contribution to Community Outcomes

- Climate smart: Consider water conservation and water security when future planning
- Healthy environment: Providing clean water supply to our communities

What we will deliver

Description	When
<ul style="list-style-type: none"> • Feasibility study for connection to Dargaville water storage • Variation to Kaihu Water take consent to obtain permission from NRC to take at lower levels 	2021/2022
<ul style="list-style-type: none"> • Design infrastructure for conveyance (water storage) 	2022/2023
<ul style="list-style-type: none"> • Continue with design for conveyance 	2023/2024
<ul style="list-style-type: none"> • Construct water storage • Maungaturoto Water Storage Options and Capacity Upgrades 	2024/2031

Performance Measures

	LTP Year 1 Target 2021/2022	LTP Year 2 Target 2022/2023	LTP Year 3 Target 2023/2024	LTP Years 4-10 Target 2024/2031
The extent to which Council's drinking water supply complies with part 4 of the NZDWS (bacteria compliance criteria) - Mandatory	Dargaville, Maungaturoto, Ruawai, Glinks Gully and Mangawhai All schemes must be compliant	Dargaville, Maungaturoto, Ruawai, Glinks Gully and Mangawhai All schemes must be compliant	Dargaville, Maungaturoto, Ruawai, Glinks Gully and Mangawhai All schemes must be compliant	Dargaville, Maungaturoto, Ruawai, Glinks Gully and Mangawhai All schemes must be compliant
The extent to which Council's drinking water supply complies with part 5 of the NZDWS (protozoal compliance criteria) - Mandatory	Dargaville, Maungaturoto, Ruawai, Glinks Gully and Mangawhai All schemes must be compliant	Dargaville, Maungaturoto, Ruawai, Glinks Gully and Mangawhai All schemes must be compliant	Dargaville, Maungaturoto, Ruawai, Glinks Gully and Mangawhai All schemes must be compliant	Dargaville, Maungaturoto, Ruawai, Glinks Gully and Mangawhai All schemes must be compliant

	LTP Year 1 Target 2021/2022	LTP Year 2 Target 2022/2023	LTP Year 3 Target 2023/2024	LTP Years 4-10 Target 2024/2031
The percentage of real water loss from our networked reticulation system (average for total network of all schemes) ¹ .	≤28%	≤28%	≤27%	≤26%
Median response time for attendance for urgent callouts; from the time the local authority receives notification to the time that service personnel reach the site.	≤2 hours	≤2 hours	≤2 hours	≤2 hours
Median response time for resolution of urgent callouts; from the time the local authority receives notification to the time that service personnel confirm resolution of the fault or interruption.	≤48 hours	≤48 hours	≤48 hours	≤48 hours
Median response time for attendance for nonurgent callouts; from the time the local authority receives notification to the time that service personnel reach the site.	≤3 hours	≤3 hours	≤3 hours	≤3 hours
Median response time for resolution of nonurgent callouts; from the time the local authority receives notification to the time that service personnel confirm resolution of the fault or interruption.	≤3 days	≤3 days	≤3 days	≤3 days
Total number of complaints about drinking water quality e.g. clarity, odour, taste, pressure or flow and continuity of supply. Expressed per 1,000 water connections.	≤40	≤39	≤38	≤37
Total number of complaints received by Council about Council's response to any of these	≤40	≤39	≤38	≤37

	LTP Year 1 Target 2021/2022	LTP Year 2 Target 2022/2023	LTP Year 3 Target 2023/2024	LTP Years 4-10 Target 2024/2031
issues. Expressed per 1,000 water connections.				
Water take consents:	100% compliance with Northland Regional Council consents.	100% compliance with Northland Regional Council consents.	100% compliance with Northland Regional Council consents.	100% compliance with Northland Regional Council consents.
The average consumption of drinking water per day per resident within Kaipara district. Average calculated by the billed metered consumption (m ³) x 1,000 divided by the number of connections x 365 x 2.5 (occupancy rate).	Dargaville 275 Maungaturoto 340 Ruawai 130 Glinks Gully 52 Mangawhai* 230 *Mangawhai calculation to take into account the campground	Dargaville 275 Maungaturoto 340 Ruawai 130 Glinks Gully 52 Mangawhai* 230 *Mangawhai calculation to take into account the campground	Dargaville 275 Maungaturoto 340 Ruawai 130 Glinks Gully 52 Mangawhai* 230 *Mangawhai calculation to take into account the campground	Dargaville 275 Maungaturoto 340 Ruawai 130 Glinks Gully 52 Mangawhai* 230 *Mangawhai calculation to take into account the campground
Major capital projects are completed within budget.	Achieved	Achieved	Achieved	Achieved

¹Real water loss is calculated by subtracting the meter readings and 'other components' from the total water supplied to the networked reticulation system.

Changes in Levels of Service

There will be no changes to the level of service

Significant Negative effects

Activity	Effect	Mitigation
Drinking Water	Non-compliance can occur at the water treatment plant (WTP) or within the water network. We have stringent monitoring and testing regimes to control and supply the community with compliant drinking water.	We mitigate potential negative effects through a mix of asset management planning activities, including: <ul style="list-style-type: none"> asset development work monitoring and testing demand management initiatives and public education, including water conservation programmes.
Water system	Water treatment system failure could affect dialysis patients.	Our contractors have a list of dialysis patients and notify them immediately of any outages, supplying water if needed. <p>We mitigate potential negative effects through a mix of asset management planning activities, including:</p> <ul style="list-style-type: none"> asset development work monitoring and testing

Activity	Effect	Mitigation
		<ul style="list-style-type: none"> • demand management initiatives and • public education, including water conservation programmes.
Pipes	Breaks in the lines are unpredictable and difficult to detect in wet weather. However, any rapid reservoir depletion is a trigger for network investigation. Our Water Asset Management Plan describes our water assets and the practices used to manage them which helps to reduce possible negative effects and risks	<p>We mitigate potential negative effects through a mix of asset management planning activities, including:</p> <ul style="list-style-type: none"> • asset development work • monitoring and testing • demand management initiatives and • public education, including water conservation programmes.

How are we considering Climate change?

A Climate Smart Community Outcome guides Water Supply activities. Council has identified climate change projections and potential impacts and implications for Kaipara's water supply. We understand that increasing drought conditions and lower mean flow levels pose risks to water supply activities. While demand for potable water will remain and likely increase, access to water will decrease. Water supply activities face changes to water quality, reduced water quality and flows and increasing pressures on water take consents.

We will continue to identify impacts and potential negative effects. We will seek adaptive planning and designs in our asset developments and upgrades. Where feasible, we will pursue opportunities for sustainable, low emissions design and project management. We will continue to seek options for water storage, water conservation and maintaining water quality. We also will ensure our asset management plans (AMPs) reflect the critical nature of conserving water supply and adapt to changes in access and availability.