



# 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 2005 and 2018
- Resource Management Act 1991.

## Risks and Issues

- The security of water supply for Dargaville is challenging during dry years
- Supplying raw water to customers for farming and horticultural 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 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 may find the renewals required unaffordable
- Asset condition knowledge (pipes) is mixed and we risk unforeseen asset failure, and
- Inadequate asset management

## 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, Maungatūroto 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"> <li>• Feasibility study for connection to Dargaville from all options</li> <li>• Application for new consent at Ahikiwi water take</li> </ul>	2021/2022
<ul style="list-style-type: none"> <li>• Water rates equalisation will see a correction of water charges across the district</li> </ul>	2021/2022
<ul style="list-style-type: none"> <li>• Kaihu Water Treatment Plant and Truck Filler will be delivered subject to the success of external funding application</li> </ul>	2021/2022
<ul style="list-style-type: none"> <li>• Investigate a water security solution for Mangawhai</li> </ul>	2021/2022
<ul style="list-style-type: none"> <li>• Business Case for connection to Tai Tokerau Water Storage</li> </ul>	2021/2022
<ul style="list-style-type: none"> <li>• Kaipara District Council SCADA (Supervisory Control and Data Acquisition) Upgrade</li> </ul>	2021/2022
<ul style="list-style-type: none"> <li>• Continue planning and collaboration on 3 Waters Reform</li> </ul>	2021/2022

### 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, Maungatūroto, Ruawai, Glinks Gully and Mangawhai  All schemes must be compliant	Dargaville, Maungatūroto, Ruawai, Glinks Gully and Mangawhai  All schemes must be compliant	Dargaville, Maungatūroto, Ruawai, Glinks Gully and Mangawhai  All schemes must be compliant	Dargaville, Maungatūroto, 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 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, Maungatūroto, Ruawai, Glinks Gully and Mangawhai  All schemes must be compliant	Dargaville, Maungatūroto, Ruawai, Glinks Gully and Mangawhai  All schemes must be compliant	Dargaville, Maungatūroto, Ruawai, Glinks Gully and Mangawhai  All schemes must be compliant
The percentage of real water loss from our networked reticulation system (average for total network of all schemes) <sup>1</sup> .	≤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

	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
Total number of complaints received by Council about Council's response to any of these issues. Expressed per 1,000 water connections.	≤40	≤39	≤38	≤37
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 <sup>3</sup> ) x 1,000 divided by the number of connections x 365 x 2.5 (occupancy rate).	Dargaville 275 Maungatūroto 340 Ruawai 130 Glinks Gully 52 Mangawhai* 230  *Mangawhai calculation to consider the campground	Dargaville 275 Maungatūroto 340 Ruawai 130 Glinks Gully 52 Mangawhai* 230  *Mangawhai calculation to consider the campground	Dargaville 275 Maungatūroto 340 Ruawai 130 Glinks Gully 52 Mangawhai* 230  *Mangawhai calculation to consider the campground	Dargaville 275 Maungatūroto 340 Ruawai 130 Glinks Gully 52 Mangawhai* 230  *Mangawhai calculation to consider the campground
Major capital projects are completed within budget.	Achieved when completed at or below budget	Achieved when completed at or below budget	Achieved when completed at or below budget	Achieved when completed at or below budget

<sup>1</sup>Real 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
Drought	People will not have enough water effecting household and commercial premises. Those on non-reticulated supplies or who capture their own water will be affected by reduced availability of water. Water carts may not be able to supply.	Apply water restrictions to manage the demand enabling an equable distribution of water.  Long term plan is to increase capacity through consent renewal, investigation of existing holding dam use and tapping into new sources of water, e.g., Tai Tokerau Water Trust Water Storage.

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

**How are we considering Climate change?**

Council’s 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 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 will ensure our asset management plans (AMPs) reflect the critical nature of conserving water supply and adapt to changes in access and availability.

## Prospective Funding Impact Statements – Water Supply

For the year ended:	Annual Plan	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget
30 June	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000

### Prospective Funding Impact Statement

Activity selection: Water Supply, All, All

#### Operating funding

##### Sources of operating funding

General rates, uniform annual general charges, rate penalties	0	381	366	0	0	0	0	0	0	0	0
Targeted rates	3,145	4,194	4,444	4,623	4,648	4,759	4,913	4,975	5,042	5,444	5,518
Subsidies and grants for operating purposes	0	0	0	0	0	0	0	0	0	0	0
Fees and charges	491	550	566	579	589	634	656	675	698	520	537
Internal charges and overheads recovered	0	0	0	0	0	0	0	0	0	0	0
Interest and dividends from investments	0	0	0	0	0	0	0	0	0	0	0
Local authorities fuel tax, fines, infringement fees and other receipts	0	0	0	0	0	0	0	0	0	0	0
<b>Total operating funding</b>	<b>3,636</b>	<b>5,125</b>	<b>5,377</b>	<b>5,202</b>	<b>5,236</b>	<b>5,393</b>	<b>5,569</b>	<b>5,650</b>	<b>5,740</b>	<b>5,964</b>	<b>6,055</b>

##### Application of operating funding

Payments to staff and suppliers	1,281	1,981	2,013	1,806	1,862	1,921	1,984	2,035	2,099	2,166	2,234
Finance costs	277	208	202	163	117	109	91	79	70	55	44
Internal charges and overheads recovered	742	1,230	1,254	1,246	1,279	1,302	1,343	1,347	1,350	1,390	1,407
Other operating funding applications	0	0	0	0	0	0	0	0	0	0	0
<b>Total applications of operating funding</b>	<b>2,300</b>	<b>3,419</b>	<b>3,469</b>	<b>3,216</b>	<b>3,258</b>	<b>3,332</b>	<b>3,417</b>	<b>3,461</b>	<b>3,519</b>	<b>3,610</b>	<b>3,685</b>
<b>Surplus (deficit) of operating funding</b>	<b>1,337</b>	<b>1,706</b>	<b>1,907</b>	<b>1,986</b>	<b>1,978</b>	<b>2,061</b>	<b>2,152</b>	<b>2,190</b>	<b>2,221</b>	<b>2,354</b>	<b>2,371</b>

For the year ended:	Annual Plan	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget
30 June	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000

### Prospective Funding Impact Statement

Activity selection: Water Supply, All, All

#### Capital funding

##### Sources of capital funding

Subsidies and grants for capital expenditure	0	916	0	0	0	0	0	0	0	0	0
Development and financial contributions	0	33	57	57	49	44	40	38	37	23	23
Increase (decrease) in debt	248	-352	-365	-330	-448	-468	-508	-498	-471	-499	-480
Gross proceeds from sale of assets	0	0	0	0	0	0	0	0	0	0	0
Lump sum contributions	0	0	0	0	0	0	0	0	0	0	0
Other dedicated capital funding	0	0	0	0	0	0	0	0	0	0	0
<b>Total sources of capital funding</b>	<b>248</b>	<b>597</b>	<b>-308</b>	<b>-273</b>	<b>-400</b>	<b>-424</b>	<b>-468</b>	<b>-460</b>	<b>-434</b>	<b>-476</b>	<b>-457</b>

##### Applications of capital funding

Capital expenditure - to meet additional demand	0	139	67	0	0	0	322	0	0	662	0
Capital expenditure - to improve the level of service	13	579	0	0	0	0	0	0	0	0	0
Capital expenditure - to replace existing assets	1,383	1,017	1,370	1,232	1,736	1,872	1,800	1,719	1,778	2,004	1,901
Increase (decrease) in reserves	189	570	163	480	-157	-235	-439	11	9	-787	13
Increase (decrease) of investments	0	0	0	0	0	0	0	0	0	0	0
<b>Total applications of capital funding</b>	<b>1,584</b>	<b>2,304</b>	<b>1,599</b>	<b>1,713</b>	<b>1,579</b>	<b>1,637</b>	<b>1,684</b>	<b>1,730</b>	<b>1,786</b>	<b>1,878</b>	<b>1,913</b>
<b>Surplus (deficit) of capital funding</b>	<b>-1,337</b>	<b>-1,706</b>	<b>-1,907</b>	<b>-1,986</b>	<b>-1,978</b>	<b>-2,061</b>	<b>-2,152</b>	<b>-2,190</b>	<b>-2,221</b>	<b>-2,354</b>	<b>-2,371</b>
<b>Funding Balance</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>