



Wastewater

Purpose

Protection of the public and environmental health, through treatment of wastewater in selected areas.

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

- Failure of a scheme due to the age of the assets, and the inaccessibility for inspections (pipes are underground so difficult to find and inspect adequately)
- Affordability, the cost to repair and provide service with aging pipes coupled with small communities served by a scheme can push the expenses (and rates) out of reach for communities
- Higher environmental standards for discharge consents (treated wastewater released into harbours or rivers), will require communities to front the costs of upgrading equipment or services to meet the standards
- The Mangawhai Community Wastewater Scheme (MCWWS) requires implementation of recommended upgrades to the wastewater treatment plant. The modelling for the reticulation determines future upgrades and includes consideration for Mangawhai Central Development
- Our Infrastructure Strategy assumes a continuation of land-based disposal options through increased efficiency and alternative disposal options
- The exact future capacity of the five other wastewater schemes is unknown until specific capacity analyses (modelling) are undertaken
- Ongoing asset management condition and performance assessments required to prioritise maintenance and renewals.

How we fund this Group

- Targeted rates
- Development contributions
- User fees and charges
- Borrowing
- Asset sales and
- General rate.

What we do

We collect, treat, and dispose of wastewater through sustainable, cost effective and environmentally friendly methods. We own and operate wastewater schemes for Glink's Gully, Te Kopuru, Dargaville, Maungatūroto, Kaiwaka and Mangawhai. We undertake asset management, planning, operation and maintenance of the wastewater schemes, capital and refurbishment programmes and consent monitoring and compliance, along with responsibility of professional and physical works undertaken on the network.

Contribution to Community Outcomes

- Climate change: Manage our wastewater to minimise negative effects of climate change.
- Vibrant communities: Manage our service to ensure communities and business are supported.
- Healthy environment: Manage wastewater standards with discharge having no detrimental effects on the environment.

What we will deliver

Description	When
<ul style="list-style-type: none"> • Investigating the disposal system for MCWWS • Undertake wastewater modelling for the district • Investigation and documentation of asset conditions • Continue the extension of the MCWWS reticulation and disposal system • Start construction of the balance tank for the MCWWS • Investigate alternative usages for sludge from MCWWS • Plan for 3 waters reform • Wastewater rate equalisation will see a correction of wastewater rates across the district • Investigate and construct a wastewater treatment extension for Spring Street (Dargaville) residential subdivision • Investigate options assessment for a wastewater scheme in Paparoa 	2021/2022
<ul style="list-style-type: none"> • Work programme implemented for disposal system MCWWS • Continue wastewater modelling for the district • Work programme designed for asset replacement or renewal • Determine feasible option for sludge usage MCWWS 	2022/2023
<ul style="list-style-type: none"> • Construct disposal system for MCWWS • Commence development for recyclable use of sludge from MCWWS • Implement outcomes from wastewater modelling • Asset replacement and renewal work commences • Implement outcomes from 3 waters reform 	2023/2024
<ul style="list-style-type: none"> • Construct and complete disposal system for MCWWS • Develop a recyclable use of sludge from MCWWS • Upgrade the Dargaville Wastewater Treatment Plant to increase capacity 	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 number of dry weather sewage overflows from Council's sewerage systems, expressed per 1,000 sewerage connections to that sewerage system. The resource consent provides for severe weather events and power failure exceptions.	≤1	≤1	≤1	≤1

	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
Where Council attends to sewage overflows resulting from a blockage or other fault in the territorial authority's sewerage system, the following median response times apply: <i>Attendance time</i> : from the time that the territorial authority receives notification to the time that service personnel reach the site. (Department of Internal Affairs measure)	≤2 hours	≤2 hours	≤2 hours	≤2 hours
Where Council attends to sewage overflows resulting from a blockage or other fault in the territorial authority's sewerage system, the following median response times apply: <i>Resolution time</i> : from the time that the territorial authority receives notification to the time that service personnel confirm resolution of the blockage or other fault.	≤48 hours	≤48 hours	≤48 hours	≤48 hours
The total number of complaints received by Council about sewage odour. Expressed per 1,000 sewerage connections.	≤10	≤10	≤10	≤10
The total number of complaints received by Council about sewerage system faults e.g. blockages, breaks. <i>Expressed per 1,000 sewerage connections.</i>	≤27	≤26	≤25	≤24
The total number of complaints received by Council about Council's response to issues with its sewerage system. <i>Expressed per 1,000 sewerage connections.</i>	≤50	≤48	≤46	≤44
The number of abatement notices, infringement notices, enforcement orders and convictions received by Council in relation to its resource consents for discharge from its sewerage systems.	0	0	0	0
Major capital projects are completed within budget.	Achieved	Achieved	Achieved	Achieved

Changes in Levels of Service

There will be no changes to the level of service.

Significant Negative effects

Activity	Effect	Mitigation
Environmental Health	In case of failure or significant breakage, there could be contamination of public waterways which may have large environmental or personal health issues.	Remote monitoring and alarms are in place for operators to react quickly to contain any spillages. For pump stations, use of sucker trucks. For pipe breakages, quick responses, and containment of spillage before it gets to waterways
Renewals	The rising cost of ongoing maintenance or pipe renewal may become economically unrealistic.	Use competitive bidding as far as possible and create price and quality tension for better results.
Wastewater plants	Failure of a wastewater treatment plant (WTP) in meeting the resource consent may result in Northland Regional Council (NRC) issuing an infringement notice.	Ongoing close monitoring of performance and acting quickly to rectify.
Population growth	Urban areas such as Mangawhai are experiencing rapid growth and this is projected to continue requiring infrastructure planning to remain ahead of this growth.	Growth projections are factored into current modelling that informs upgrades of reticulated wastewater network, wastewater treatment plant and disposal systems to increase capacity. Growth and its impacts on modelling are reviewed regularly.

How are we considering Climate change?

Council's Climate Smart Community Outcome guides Wastewater activities. Kaipara's changing climate will impact on wastewater activities. Increasing average temperatures and changes to rainfall patterns will increase pressure on treatment plant and on the wastewater network. Sea level rise and increasing risk from coastal hazards will also impact Council's low-lying assets in the wastewater network. These changes will increase the risk of flooding and overflow due to increased inflow and infiltration. Discharge allowances are likely to decrease. We understand these risks will impact on current expected levels of service and costs to provide expected services, and we will need to be adaptive and strategic to meet expected levels of service.

We also understand we have a responsibility to manage these risks and protect the natural environment and communities. We will continue to explore adaptation opportunities in our wastewater activities, including seeking out ways to manage inflows and infiltration during heavy rainfall. We will continue to consider climate change impacts as we make management decisions for our wastewater activities. Considerations in planning and design include carrying out, where feasible, climate scenario analysis and risk analysis for major projects or operational works.

Prospective Funding Impact Statements - Wastewater

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: Sewerage and the Treatment and Disposal of Sewage, All, All

Operating funding

Sources of operating funding

General rates, uniform annual general charges, rate penalties	1,484	1,449	880	928	722	637	677	691	805	790	831
Targeted rates	6,018	5,796	6,090	6,420	6,647	6,779	7,025	7,368	7,819	8,133	8,340
Subsidies and grants for operating purposes	0	0	0	0	0	0	0	0	0	0	0
Fees and charges	9	26	27	28	29	30	31	32	33	34	35
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
Total operating funding	7,511	7,271	6,996	7,377	7,398	7,446	7,732	8,091	8,657	8,957	9,207

Application of operating funding

Payments to staff and suppliers	2,883	2,190	2,243	2,286	2,244	2,314	2,389	2,449	2,437	2,513	2,591
Finance costs	2,564	2,026	2,010	1,960	1,626	1,265	1,279	1,252	1,448	1,311	1,331
Internal charges and overheads recovered	1,385	1,536	1,578	1,704	1,704	1,744	1,817	1,884	1,957	2,028	2,053
Other operating funding applications	0	0	0	0	0	0	0	0	0	0	0
Total applications of operating funding	6,831	5,751	5,831	5,950	5,574	5,323	5,485	5,585	5,842	5,852	5,975
Surplus (deficit) of operating funding	680	1,520	1,166	1,427	1,824	2,122	2,247	2,506	2,815	3,105	3,232

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: Sewerage and the Treatment and Disposal of Sewage, All, All

Capital funding

Sources of capital funding

Subsidies and grants for capital expenditure	0	491	0	0	0	0	0	0	0	0	0
Development and financial contributions	2,436	2,130	2,167	2,168	2,157	2,151	2,145	2,141	2,140	2,117	2,117
Increase (decrease) in debt	-715	-54	-47	-622	-330	-359	-192	1,512	-164	-795	-818
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
Total sources of capital funding	1,721	2,567	2,120	1,546	1,828	1,792	1,953	3,654	1,976	1,322	1,298

Applications of capital funding

Capital expenditure -to meet additional demand	2,053	4,666	1,187	43	1,158	2,350	3,326	9,851	2,908	53	3,652
Capital expenditure -to improve the level of service	528	574	0	0	0	0	0	2,662	370	0	0
Capital expenditure -to replace existing assets	515	836	687	328	799	599	733	596	743	440	455
Increase (decrease) in reserves	-695	-1,989	1,412	2,602	1,695	966	141	-6,949	770	3,935	423
Increase (decrease) of investments	0	0	0	0	0	0	0	0	0	0	0
Total applications of capital funding	2,401	4,087	3,286	2,973	3,652	3,915	4,201	6,160	4,791	4,427	4,530
Surplus (deficit) of capital funding	-680	-1,520	-1,166	-1,427	-1,824	-2,122	-2,247	-2,506	-2,815	-3,105	-3,232
Funding Balance	0	0	0	0	0	0	0	0	0	0	0