

# 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 2000 and 2005
- 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 are 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
- If the trend toward higher environmental standards for discharge consents (treated wastewater released into harbours or rivers) continues, it may become unreasonable to expect communities to front the costs of upgrading equipment or services to meet the standards
- The Mangawhai Community Wastewater Scheme (MCWWS) requires implementation of the improvements plan to provide the right capacity
- This Infrastructure Strategy assumes a continuation of land-based disposal options through increased efficiency and alternative disposal options and
- The exact capacity of the five other wastewater schemes is unknown until specific capacity analyses (modelling) are undertaken.

## 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 Glinks Gully, Te Kopuru, Dargaville, Maungaturoto, Kaiwaka and Mangawhai; and undertakes 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"> <li>Investigating the disposal system for MCWWS</li> <li>Undertake wastewater modelling for the district</li> <li>Investigation and documentation of asset conditions</li> <li>Continue the extension of the MCWWS reticulation and disposal system</li> <li>Complete the balance tank for the MCWWS</li> <li>Investigate alternative usages for sludge from MCWWS</li> </ul>	2021/2022
<ul style="list-style-type: none"> <li>Work programme implemented for disposal system MCWWS</li> <li>Continue wastewater modelling for the district</li> <li>Work programme designed for asset replacement or renewal</li> <li>Determine feasible option for sludge usage MCWWS</li> </ul>	2022/2023
<ul style="list-style-type: none"> <li>Construct disposal system for MCWWS</li> <li>Commence development for recyclable use of sludge from MCWWS</li> </ul>	2023/2024
<ul style="list-style-type: none"> <li>Construct disposal system for MCWWS</li> <li>Develop a recyclable use of sludge from MCWWS</li> <li>Upgrade the Dargaville Wastewater Treatment Plant</li> </ul>	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 <i>sewerage systems</i> , 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
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:  Attendance time: 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:  Resolution time: 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

	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 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. Expressed per 1,000 sewerage connections. ( <i>Department of Internal Affairs measure</i> )	≤27	≤27	≤27	≤27
The total number of complaints received by Council about Council's response to issues with its sewerage system. Expressed per 1,000 sewerage connections. ( <i>Department of Internal Affairs measure</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
<b>Environmental Health</b>	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
<b>Renewals</b>	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.

<b>Wastewater plants</b>	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.
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## How are we considering Climate change?

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 services and costs to provide expected services, and that we will need to be adaptive and strategic to meet expected levels of services.

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 also 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.