



Sewerage Treatment Group



Community Outcome
A Safe and Healthy District and
A Sustainable and Livable
Environment

Sewerage Treatment

The wastewater system carries liquid wastes from households, businesses and community facilities. It treats and disposes the effluent to minimise the risk to the environment and public health.

SEWERAGE TREATMENT CONTRIBUTES BY

- Ensuring wastewater systems support and promote safe and healthy conditions and
- Sewerage treatment does not adversely effect the environment.

COUNCIL'S STRATEGIC PRIORITIES¹

– in action –

East Coast Wastewater

What we said we would do in 2013/14

Work to commence for the East Coast Scheme which services the Mangonui/Cable Bay/Coopers Beach and Taipa areas.



What we did in 2013/14

Renewal of the resource consent for discharge from the treatment plant is in progress. A number of options have been considered as a way of reducing discharge to water together with an ecological study on the existing receiving environment to assist with progressing the consenting process.

What we plan to do in 2014/15

Continue to progress resource consent renewal and planning for treatment plant upgrade if required.

Bay of Islands Wastewater Treatment Scheme

What we said we would do in 2013/14

Council to complete an intensive consultation with ratepayers in July 2013.

What we did in 2013/14

The response to the campaign titled “Let’s Talk Crap” drew more than 600 responses from the community. The campaign considered three options which were: 1) Ratepayers retaining personal responsibility for owning and managing sewage treatment onsite. 2) Council managing onsite treatment systems. 3) The “flush and forget” option which supported reticulating

specific suburbs. Taking into account the Auditor General’s report on Kaipara and its Mangawhai project, Council resolved to adopt a staged approach to ensure affordability to ratepayers, and to separately address compliance issues at the Paihia wastewater plant.

What we plan to do in 2014/15

Progress works to upgrade the Paihia wastewater treatment plant to meet new resource consent standards. Carry out a more detailed public consultation on proposals for the Kerikeri wastewater scheme to include submissions under the LTP process.

KEY PROJECTS

– *development so far* –

Sewer Inflow And Infiltration Studies

What we said we would do in 2013/14

Prioritise and commence district wide inflow and infiltration assessment works.

What we did in 2013/14

Carried out a high level review which lead to prioritisation of the Kaitaia wastewater scheme. Hydraulic modelling to establish scale and potential cost impact.

¹ Please refer to the Sewerage Treatment section of the Long-Term Plan (LTP) 2012/13 and the Annual Plans 2013/14 and 2014/15 for further information on priorities



Plan established to progress detailed investigations and identify solutions in 2014/15 for remediation program as part of the LTP.

What we plan to do in 2014/15

Continue district wide inflow and infiltration assessment works and implement remedial works. Focus on the Kaitaia sewerage network as a priority to identify solutions and budgets for approval under the LTP.

Kaikohe STP Upgrade

What we said we would do in 2013/14

Commence the Kaikohe Sewerage Treatment Plant (STP) upgrade.

What we did in 2013/14

Reviewed extent of current compliance issues and held discussions with Northland Regional Council regarding potential for resource consent modification. Agreed to undertake environmental assessment and submit proposals for a do nothing recommendation. Assessments commenced.

What we plan to do in 2014/15

Complete the Kaikohe Treatment Plant upgrade to meet the resource consent. Final outcomes will reflect environmental assessment study and review of compliance standards with regional council.

Sludge Management Project

What we said we would do in 2013/14

Creation of sludge drying facility at Kaitaia Sewerage Treatment Pond.

What we did in 2013/14

Sludge survey on all pond systems completed. Tender preparation for sludge removal at Kaitaia STP in progress. Consultant engaged to carry out bund design for Kaitaia sludge storage in progress. Discussion entered with external sludge recycling operator on potential options for waste material.

What we plan to do in 2014/15

Complete sludge removal from ponds at Kaitaia, Kaikohe and Kawakawa

COMPLETED

– what we have achieved in 2013/14 –

- Council installed a new low pressure sewer system in Opuia and connected this to the Paihia scheme. Failing septic systems in this area were causing pollution in the Bay of Islands. During 2012/13 the contract was tendered, awarded, and construction has been completed.
- Awanui had an ageing effluent disposal scheme with failing septic tanks, leaking infrastructure, prone to flooding, and a deteriorating treatment plant. The proposed solution was to replace it with a low pressure system and transfer effluent to the Kaitaia sewerage treatment plant. A contract was tendered and awarded in 2012/13 with construction completed during 2013/14.

CHALLENGES AND DISAPPOINTMENTS

– where are we now? –

- The resource consenting process for East Coast did not progress as speedily as expected, therefore delaying a decision on any capital upgrade works.
- The need to ensure an affordable solution for the proposed Bay of Islands wastewater scheme has been a challenge leading to review of scoping and options, while attempting to retain government subsidy.
- The sewer infiltration and inflow high level study has identified significant issues in the Kaitaia network and will pose a challenge in achieving an affordable solution.

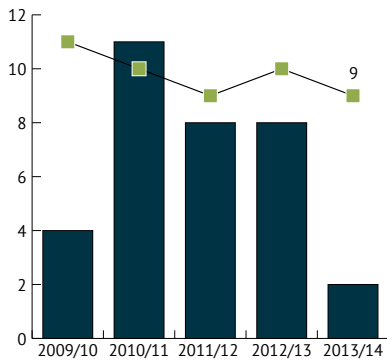
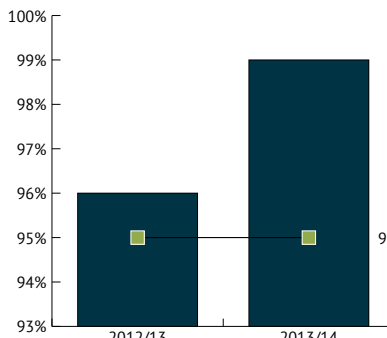
² Please note: No significant changes have occurred to levels of service. However, Council has active projects to reticulate Opuia and Awanui, where evidence of failed reticulation and septic systems indicates that a new reticulation is the most cost effective solution. As part of the investigations into options for the Bay of Islands Wastewater Treatment Project Council is investigating the future reticulation of areas in Kerikeri where failure of septic systems and drainage fields may be posing a threat to nearby water bodies. The intent will be to engage in a consultative procedure with the affected communities before physical construction is undertaken.

Activity Key Performance Indicators²

- The activity service and performance results in 2013/14 is detailed below:

2013/14 results

Result Target

<p>1: Achieved Council achieved this by a risk analysis of facilities most likely to cause spillage, and focusing attention and resources to manage those risks appropriately.</p> <p>2: Achieved Most of the incidents were resolved within the timeframe. One response in March 2014 was late due to location of the leak which has since been rectified.</p>	<p>1: Number of sewage spills to water</p> <p>2</p> 	<p>2: Percentage of Requests for Service (RFS) responded to in set time for sewerage</p> <p>99%</p> 
<p>3: Achieved The contract target for the flow limit compliance – 2013/14 has been met by Transfield Services Limited who are responsible for monitoring effluent (final) discharges from all wastewater schemes. Monitoring data is supplied to the Northland Regional Council as required for each schemes' resource consent.</p> <p>4: Not Achieved Breaches of consent limits at Paihia, Kaitaia, Kawakawa, Whatuwhiwhi, Kerikeri and Rawene. A series of localised improvement plans are underway, Council working with Northland Regional Council on variations to the current discharge consents quality limits.</p>	<p>3: Percentage compliance with resource consents discharge flow limits</p> <p>99%</p> 	<p>4: Percentage compliance with consented discharge quality limits</p> <p>91%</p> 



Sewerage Treatment Group Financial Information

Financial Summary

FOR THE YEAR ENDED 30 JUNE 2014

	NOTE	ACTUAL 2014 \$000s	COUNCIL BUDGET 2014 \$000s	VARIANCE \$000s
INCOME				
Rates income (excluding targeted water supply rates)	1	12,431	11,402	1,029
Fees, charges & targeted water supply rates		155	282	(126)
Development & financial contributions	2	122	0	122
Subsidies & grants	3	93	1,495	(1,402)
Other income		(24)	4	(28)
Total operating income		12,777	13,183	(406)
EXPENDITURE				
Direct costs	4	5,908	5,148	(760)
Indirect costs		423	483	60
Activity expenditure		6,331	5,631	(700)
Depreciation		3,776	3,789	13
Interest expense		1,339	1,681	342
Total operating expenditure		11,446	11,101	(345)
Net operating surplus/(deficit)		1,332	2,082	(750)
Capital statement				
Net operating surplus		1,332	2,082	(750)
Loans		767	6,583	(5,816)
Other funding		2,286	5,130	(2,844)
Total funding		4,385	13,795	(9,410)
New work	5	424	10,467	10,033
Renewal works	5	789	1,652	863
Loan repayments		2,078	1,676	(402)
Total capital expenditure		3,291	13,795	10,504
NET SURPLUS/(DEFICIT)		1,094	0	1,094

NOTE:

A favourable variance is shown as a positive number and an unfavourable variance is shown as a negative number.

The direct and indirect budgets shown in the table do not individually agree to those published in the LTP due to a difference in allocation. The total activity expenditure, however, does agree to the total published in the LTP.

Variance To The Annual Plan 2013/14

1. Rates income is showing a favourable variance of \$1,029k predominantly due to:
 - a. An increase in penalty rate income of \$850k.
 - b. An increase in service rates of \$156k
2. Development and financial contributions are showing a favourable variance of \$122k:
 - a. A reduction in assets for the Kohukohu scheme to reflect pipe diameters;
 - b. Development contributions of \$118k were received and were unbudgeted..
3. Subsidies and grants are showing an unfavourable variance of \$1,402k predominantly due to delays in progressing the Awanui reticulation project.
4. Direct costs are showing an unfavourable variance of \$760k predominantly due to:
 - a. External services are showing a favourable variance of \$159k;
 - b. Loss on disposal of property, plant & equipment of \$154k;
 - c. Bad debt provisions exceeded budget by \$759k due to increased penalty charges.
5. Capital expenditure is showing a favourable variance of \$10,896k predominantly due to delays in the commencement of projects.

Key Capital Projects

FOR THE YEAR ENDED 30 JUNE 2014

	ACTUAL 2014 \$000s	COUNCIL BUDGET 2014 \$000s	VARIANCE \$000s
NEW WORKS			
Wastewater schemes	424	10,467	10,003
Total new works	424	10,467	10,003
Renewals			
Wastewater schemes	789	1,652	863
Total renewals	789	1,652	863



Significant Acquisitions Or Replacements Of Assets For 2013/14

The Local Government Act 2002 requires councils to provide information regarding any significant assets acquired or replaced during the year. Council's significance policy does not specify a value but does identify the following assets as significant:

	BUDGET 2014 \$000s	ACTUAL 2014 \$000s
WASTEWATER NETWORKS AND TREATMENT		
Wastewater schemes		
Hihi treatment plant	600	25
Whatuwhiwhi treatment plant upgrade	978	104
Paihia treatment plant	1,500	18
Awanui reticulation subsidy scheme	1,500	182
Awanui reactive renewals	434	0
Rawene treatment plant upgrade	1,032	0
East Coast treatment plant upgrade	1,378	0
Sludge management	1,048	16
Kaikohe treatment plant upgrade	722	0

Variance To The Annual Plan 2013/14

- **Hihi treatment plant upgrade**

In order to provide an affordable solution the original project scope for a complete plant upgrade was reviewed and staged so that upgrade works to meet new resource consent standards could be completed in advance, and any necessary renewal requirements could be justified by more detailed investigation. Those intrusive investigations have required plant shutdown with timing being essential to maintain compliance. As a result the inspections were delayed but have now been carried out with design now underway and construction planned for 2014/15.

- **Whatuwhiwhi treatment plant upgrade**

During concept design it was identified that provision of UV treatment to meet resource consent standards could be implemented while achieving considerable savings on the original budget. Further potential savings were identified through alternative compliance monitoring proposals which were subject to discussion with Regional Council. Ongoing discussions with NRC proved inconclusive and other alternative options to re utilize redundant plant from the recently decommissioned Awanui STP were proposed. The works are currently in progress and although the project is behind schedule significant savings are anticipated.

- **Paihia treatment plant**

The Paihia treatment plant upgrade project originally formed part of the wider Bay of Islands project. The project was separated and included in the 2013/14 plan in order to meet compliance deadlines set by the Regional Council. With the arrival of a new Council in October 2013 it became necessary to reestablish a Council mandate for this high profile significant project, requiring deferral of construction into the 2014/15 year. Regional compliance deadlines have been extended to align with current program.

- **Awanui subsidy reticulation**

Significant savings on the overall project budget were realized at tender stage. Annual budgets were aligned to expected construction activities with remaining surplus deferred to 2014 to ensure final plant decommissioning costs could be met. With decommissioning now well progressed it is anticipated significant savings will be made.

- **Rawene treatment plant upgrade**

Budgets were originally planned to reflect the need for expected upgrade works as a result of the treatment plant resource consent renewal, which are usually accompanied by a raising of required treatment standards. A condition of the new resource consent is to reach agreement with the community on the specific nature of plant upgrade. As community discussion continues the funding is likely to be further deferred as part of the LTP.

- **East Coast treatment plant upgrade**

Budgets were originally planned to reflect the need for expected upgrade works as a result of the treatment plant resource consent renewal, which are usually accompanied by a raising of required treatment standards. Public consultation has been ongoing with requests for Council to review options for land disposal. A current study of surrounding waterways will lead to further consultation resulting in formal consent issue from NRC. Budgets will be deferred further as part of the LTP.

- **Sludge management**

The planned project was for removal of sludge from the Kaitaia STP pond system. Delays occurred due to a review of options available to ensure sustainability and efficient spend of both operational and capital expenditure. With bund design now completed it is expected construction will commence during 2014/15.

- **Kaikohe treatment plant upgrade**

Budgets were originally planned to reflect the need for expected upgrade works as a result of the treatment plant resource consent renewal. Formal project design was deferred while alternative low cost options are pursued with the Regional council through a risk management approach. A detailed ecological study is underway and will help to direct discussions with NRC and reach a final outcome during 2014/15.