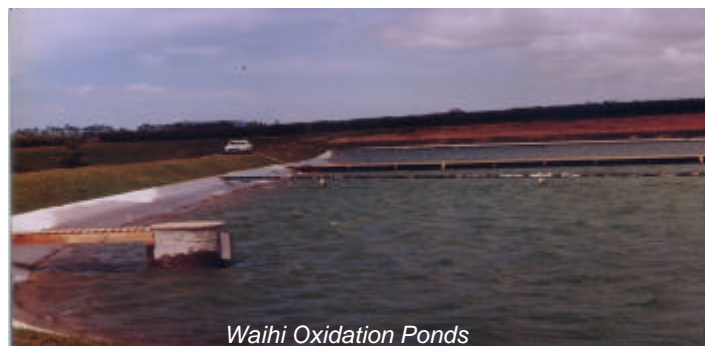


Wastewater



Waihi Oxidation Ponds

HDC Wastewater Services

Hauraki District Council provides and operates wastewater reticulation and treatment schemes for seven urban areas and ensures that all sewage is collected, treated and disposed of in a manner that complies with Public Health Standards and specific Resource Consent conditions. Information in the table below details the seven wastewater systems, their location and type of treatment used.

Area	Average System Capacity Design per Day	Resource Consents Capacity	Location of Treatment Plant	No. of Connections			Treatment scheme
				Reticulation Length (Km)	Connected Properties	Unconnected Properties	
Turua	80 m ³	250 m ³	Abattoir Rd	4.3	193	27	Wastewater is treated in a single cell oxidation pond, aerated and then discharged to the Waihou River.
Ngatea	260 m ³	6050 m ³	Phillips Rd	17.5	562	75	Wastewater is treated in a single cell oxidation pond, aerated and then discharged to the Piako River.
Kerepehi	100m ³	834 m ³	Ferry Rd	7.0	230	35	Wastewater is treated in two cell oxidation ponds and then discharged to Awaiti Canal.
Waitakaruru	n/a	n/a	SH27, Waitakaruru	n/a	15	22	A new treatment plant under construction March/April 2005 consisting of a trickling sand filter following pressured reticulation system, then discharged to the Maukoro Canal.
Paeroa	2134 m ³	4000 m ³	Irwin Rd	4.9	1987	272	Wastewater is treated in three aerated lagoons; drip fed onto eight gravel beds and then discharged into the Waihou River.
Waihi	1370 m ³	4000 m ³	Frankton Rd	4.9	2056	269	Wastewater is treated in a two-stage oxidation pond, aerated and monitored then discharged to the Ohinemuri River.
Whiritoa	60 m ³	392 m ³	SH 25, Whiritoa	8.5	390	49	Wastewater is treated in a facultative aerated pond, aerated, and then followed by a storage pond for spray irrigation onto an 8ha Eucalyptus plantation.

How does Wastewater contribute to the community outcomes?

Community Outcome	How Wastewater contributes
Safe and Healthy Environment	All wastewater within the District is collected, treated and disposed of in an efficient manner that complies with public health standards and specific resource consent conditions.

Current Levels of Service

Council has a regular maintenance programme for all treatment plants, pump stations and reticulation networks.

All six Wastewater Treatment Plants (WWTP) plus 29 pump stations are monitored continuously by telemetry. This allows staff to be contacted immediately if there is anything wrong with the plants or pump stations before there is a problem with the level of service provided to the consumers.

Paeroa has the oldest network in the Hauraki District, with a significant issue being the age of glazed earthenware pipes. Council is presently investigating by flow monitoring and close circuit television work, a priority replacement programme for these pipes.

While Waihi has a relatively new network (25 years old), there is an issue of inflow and infiltration of stormwater into the system during rainfall events. This in turn causes sewerage overflows into stormwater systems. Council will be investigating flow monitoring and close circuit television work once the bulk of the Paeroa area has been dealt with. A programme of works to rectify the stormwater infiltration will then be implemented.

Ngatea WWTP has recently undergone an upgrade to comply with new resource consent conditions.

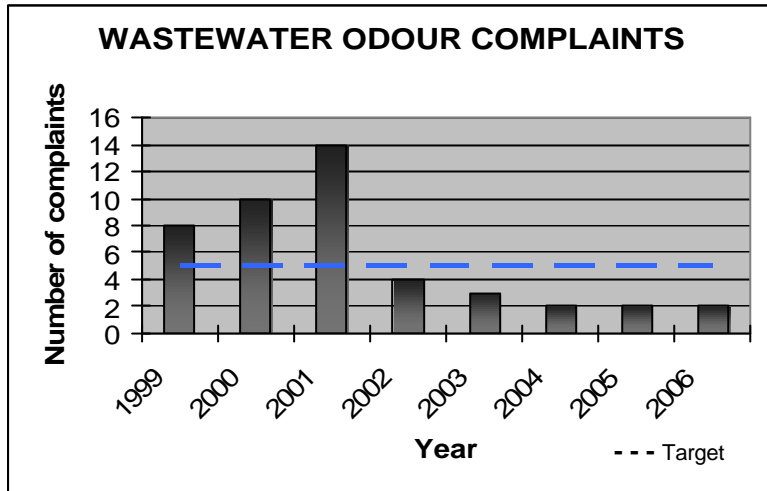
Whiritoa is a beachside community that is subject to a population influx which varies from 200 permanent residents to approximately 3,500 residents and visitors during the Christmas holiday period. Currently the existing Whiritoa WWTP is near maximum capacity.

A new reticulation and treatment scheme for Waitakaruru is in the process of design and installation. Initially 14 properties plus the Waitakaruru School are to be connected by June 2005. It is anticipated that a further 22 properties west of the School will be connected 12 months later.

Council has received provisional approval from the Ministry of Health for its subsidy application under the Sanitary Works Subsidy, for Waitakaruru with the Ministry of Health contributing 50% of the cost towards the programme.

What will success look like?

Target	Measure
To manage the wastewater activity in accordance with the levels of service as agreed through the Asset Management Plan process	To have no more than a total of 30 dry weather sewer overflows as a result of blockages or failure of the public wastewater scheme each year. To respond to 95% of faults within the reticulation system within the timeframes required for each priority.
Reduce discernable sewage odour or mechanical noise at pump station or treatment facility boundaries	Less than 5 written complaints relating to odours from wastewater pump stations or treatment facilities.
To maintain the installation of Telemetry sites in the District	Sites installed as programmed.
To operate the wastewater treatment systems so as to comply with resource consent discharge requirements	To obtain a "High Level of Compliance" grading from Environment Waikato through the annual monitoring report on resource consent compliance for each treatment plant site.
Assessment of water and sanitary services undertaken as required by the Local Government Act 2002	Assessment completed by 30 th June 2005.



Council's proposed strategies

The quality and condition of the present wastewater systems will be maintained at least to their existing level.

The review of Council's Asset Management Plans and current resource consents for wastewater has identified that significant expenditure is required over the next ten year period to meet the expected requirements that will arise from the renewal of resource consents and the renewal of ageing infrastructure. A Water and Wastewater Renewal Strategy has been developed which sets the timeframes for these upgrades.

Council is currently developing a programme aimed at reducing the frequency and intensity of overflow events to acceptable levels for the Paeroa scheme.

Turua received a new resource consent in December 2003 for the discharge of wastewater into the Waihou River. As a result of this, the treatment plant will require upgrading. It is envisaged that this will take place in 2006.

The Whiritoa Forest Irrigation is at or close to full capacity during holiday peak times. If Council allows further development (subdivision) in Whiritoa, then the treatment plant and forest irrigation systems will require upgrading. An investigation will be undertaken to determine the existing and future demands on the system.

There are a number of urban properties within the Hauraki District that are currently on septic tank. These properties are identified to be within future urban reticulation extension areas. Currently, extensions to the sewerage reticulation networks are being investigated and installed to connect as many as possible of urban septic tank properties. At present Waihi East and Paeroa North-East areas are being targeted.

The reduction of stormwater inflow and infiltration into the sewer systems district wide is currently under investigation. The work will commence in Paeroa and will then move onto Waihi and Ngatea. Data collected will include flow monitoring during rainfall events to determine stormwater infiltration, and assessment of pipe and manhole condition using video camera technology. As a result of this work, priorities will be set for the reticulation upgrade district wide.

Planned Capital Works

The resource consent for the Waihi wastewater treatment plant expires in June 2005. This will not require renewal after the programme construction is completed.



The Kerepehi Wastewater Treatment Plant resource consent to discharge treated effluent in Awaiti Canal, which expires in April 2005, is currently in the process of being renewed.

Planned Capital Expenditure

Sewerage Scheme	Project	2004/05 (\$)	2005/06 (\$)	2006/07 (\$)	2007-14 (\$)
Whiritoa	Coppicing	15,000	15,000	15,000	45,000
	WWTP forest irrigation extension				300,000
Waihi	Victoria ST P/S new rising main		300,000		
	East End reticulation extensions	25,000	25,000	25,000	
	WWTP extension	2,800,000			
Paeroa	Reticulation extension	90,000			40,000
	Infiltration replacement and extension	60,000	50,000		
	Gravity line replacement		100,000	150,000	150,000
	WWTP sewage facility			160,000	
	WWTP sludge disposal				50,000
Kerepehi	Domain P/S new rising main	5,000	2,00,000		
	WWTP upgrade			120,000	190,000
	WWTP de sludge pond				200,000
Turua	WWTP extension		300,000		
Ngatea	P/S control upgrade	5,000		15,000	45,000
	Gravity line replacement				150,000
Waitakaruru	Extend Reticulation	300,000			

The wastewater per pan charge is forecast to increase to \$415 in 2004-05, then to \$425 in 2005-06, and to \$450 from 2006-07 onwards. Despite these increases, deficits are still forecast from 2005-06 to 2009-10. The principal factor driving these increases is increased costs from recent and forecast capital and renewal work such as the Paeroa, Ngatea, Waihi and Waitakaruru Treatment upgrades.

Signalling possible change in Levels of service

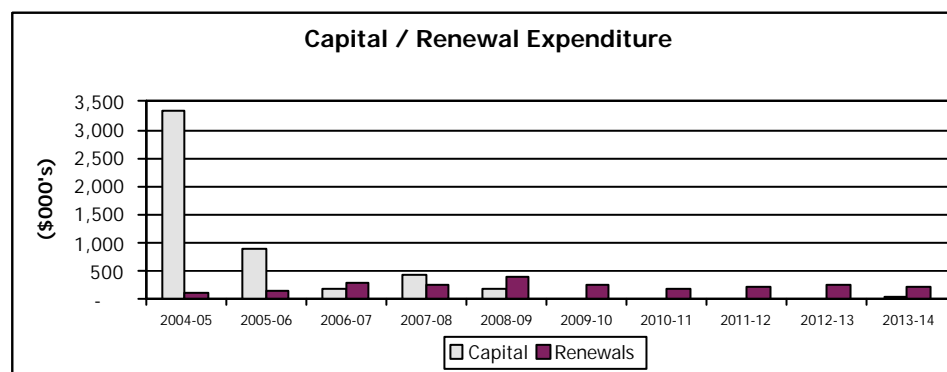
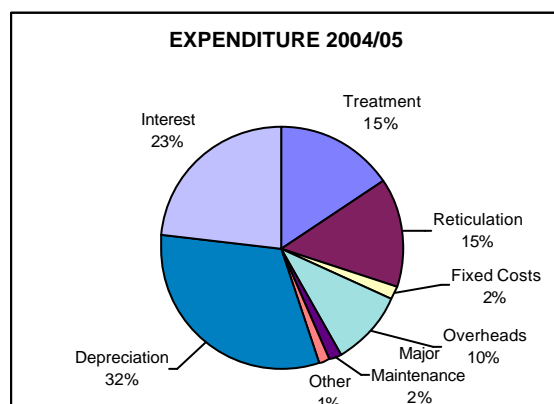
It is unlikely that un-reticulated communities will be provided with a reticulated wastewater system unless there is a demonstrated need on economic, environmental or health grounds.

Where do funds come from?

Activity	General Rates District	Targeted Rates	User Charges & Fees
Wastewater		100%	

What is the cost of operating the Wastewater activity?

Forecast 2003-04 \$000's		Forecast 2004-05 \$000's	Projected 2005-06 \$000's	Projected 2006-07 \$000's	Projected 2007-08 \$000's	Projected 2008-09 \$000's	Projected 2009-10 \$000's	Projected 2010-11 \$000's	Projected 2011-12 \$000's	Projected 2012-13 \$000's	Projected 2013-14 \$000's
EXPENDITURE											
382	Treatment	317	409	413	413	410	412	412	411	414	411
241	Reticulation	302	300	304	301	295	294	295	290	295	296
36	Fixed Costs	36	36	36	36	36	36	36	36	36	36
183	Overheads	207	208	204	203	207	203	204	207	204	203
24	Major Maintenance	35	35	35	35	35	35	35	35	9	9
26	Other	26	27	27	27	27	27	27	27	27	27
634	Depreciation	653	714	726	728	735	738	738	738	738	738
456	Interest	476	666	706	697	699	692	660	619	576	527
1,982	Total Expenditure	2,052	2,395	2,451	2,440	2,444	2,437	2,407	2,363	2,299	2,247
LESS REVENUE											
(2)	Fees and Charges	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
(1,873)	Targeted Rates	(2,096)	(2,173)	(2,330)	(2,359)	(2,387)	(2,416)	(2,445)	(2,474)	(2,505)	(2,535)
107	NET COST OF SERVICE	(46)	220	119	79	55	19	(40)	(113)	(208)	(290)



Capital	3,325	905	185	420	190	-	-	-	-	40
Renewals	100	159	290	255	391	266	187	235	244	235