

SEWERAGE

Cost of Proposed Services

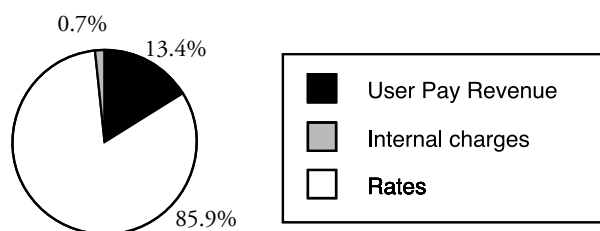
Budget 2000/01		Costs (After Internal Recoveries)	Budget 2001/02	
Net Cost	Operational Outputs		Revenue	Net Cost
\$		\$	\$	\$
215,001	Information and Advice	155,680	(20,000)	135,680
288,766	Planning	223,075	0	223,075
8,470,708	Liquid Waste Collection	9,482,551	(394,747)	9,087,804
4,709,883	Liquid Waste Treatment and Disposal	7,286,809	(1,934,600)	5,352,209
13,684,358	Net Cost of Service	17,148,115	(2,349,347)	14,798,768

Note: The above Cost of Service Statement includes a depreciation provision for 2000/01 of \$5,772,500 and in 2001/02 of \$5,664,590. The above cost of Service Statement also includes an Internal Service Provider surplus allocation for 2000/01 of (\$261,046) and in 2001/02 of (\$250,106).

Projected Cost of Service 2002/03	17,440,742
Projected Cost of Service 2003/04	17,815,057

2000/01	Capital Outputs	2001/02
\$		\$
3,098,310	Renewals and Replacements	2,770,656
6,991,340	Asset Improvements	6,082,662
946,386	New Assets	1,231,357
11,036,036		10,084,675

Sources of Funding



Nature and Scope

- Treating and disposing of all liquid wastes in a safe, environmentally sound manner.
- Providing and maintaining the sewerage collection system and ensuring its maintenance and renewal so as to sustain service needs.
- Researching the need for, and planning the development of, sewerage services.
- Providing information and advice on sewerage systems and services as a basis for public and private decision-making.
- Providing a scientific investigations capability to undertake wastewater testing and environmental, ecological and trade waste assessments.

This activity has a significant impact on the maintenance of the health of the citizens of Christchurch and the quality of their environment. The sewerage system serves all of the Christchurch city urban area and comprises 1,562km of sewer mains, approximately 22,105 manholes, 1,180km of sewer laterals (117,036 connections), 1600 flush tanks, 80 pumping stations, and three treatment works. The latter treat 150 million litres per day of sewage to required standards and includes the operation of effluent disposal and sludge reuse systems.

Overall Service Objective

These services contribute towards the following Council Strategic Objectives: C1, C2, C5, E1, E2, E3, F5, F7, G1 and G2 (as printed in the Strategic Statement).

In summary the aim is:

1. Serving the Community. This will include:
 - Disposing of liquid waste in a manner that will achieve agreed and understood levels of services that meet the customers' needs at least cost;
 - Complying with legislative requirements including those relating to public health;

- Developing partnerships with community and business groups to achieve desired outcomes with appropriate consultation on key issues;
 - Providing education to increase knowledge of key liquid waste issues and to encourage behavioural change;
 - Maintaining cultural sensitivity recognising the special role of Tangata Whenua.
2. Sustaining the Environment. This will include:
 - Adopting an advocacy role outside our immediate community for survival of the planet;
 - Ensuring everything we do is based on sustainable best practices;
 - Developing partnerships with Central Government to further the goals of waste minimisation;
 - Mimicking and restoring natural ecosystems.
 3. Valuing our Resources. This will include:
 - Being a good employer by implementing best practice in human resources management through matters such as recruitment, remuneration, Giving Value Being Valued (GVBV), Equal Employment Opportunities (EEO) and training;
 - Inspiring community ownership through partnerships, consultation and education;
 - Using appropriate best practice to protect and restore our environment.

Objectives for 2001/02

4. To develop a comprehensive Liquid Waste Management Plan which conforms to the requirements of the Local Government Amendment Act No. 4. The objectives below will form elements of this plan.
5. To preserve the value of the public reticulation system by following an asset management strategy.

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6. To ensure adequate system capacity to cater for present and future urban growth by continuation of infiltration and inflow remedial works.
7. To minimise sewage overflows to private property, public roads and waterways.
8. To minimise energy costs for all operating plant, by maximising biogas used for energy production.
9. To comply with discharge consent standards as required through achievement of target treatment levels.
10. To hold sewage treatment total costs to targeted figures.

Performance Indicators

- 4.1 Draft Liquid Waste Management Plan completed and special consultative procedure started.
- 5.1 Full implementation of the 2001/02 sewer renewal capital works programme, as in the Asset Management Plan.
6. Complete major catchment flow monitoring study, commence sub-catchment investigations, inspection and remedial works on a further 15,000 properties plus sub-catchment pipe joint grouting. (1999/00: flow monitoring in progress, 18,614 households inspected 85% of City completed.)
7. Record and report all overflows of sewage with a target of no overflows resulting from failure of Council pumping equipment. (1999/00: No overflows resulting from failure of Council pumping equipment, one overflow due to major pipeline failure.)
8. Maximise engine generator use with average of 8,000

hours (91% uptime) on load over the two National Engines and the Waukesha generating set. (1999/00: Achieved 7,914 hours onload 90.3% uptime).

- 9.1 Measure discharge pollutant levels with a target of an average of 75% and 75% reduction in BOD and suspended solids through the Christchurch Wastewater Treatment Plant. (1999/00 : Achieved 65% and 59% respectively.)
- 9.2 Measure discharge faecal coliform levels with a target of an average 99.8% reduction in faecal coliforms throughout the Christchurch Wastewater Treatment Plant and oxidation ponds with a final effluent average less than 10,000/100ml. (1999/00: Achieved 99.86% reduction and 8,200/100ml.)
- 9.3 Develop a baseline monitoring program and a baseline data set for nitrogen removal through the plant and compare to upgrade plant nitrogen base line data. (1999/00: Target not achieved due to restructuring disruption).
- 10.1 Measure wastewater **treatment** costs against the target of \$18.30 per person per year, \$47.50 per ratepayer and \$0.12/m³ per year.* (1999/00: \$13.14 per person, \$34.82 per ratepayer and \$0.08/m³).
- 10.2 Measure **total** wastewater operational costs against the target of \$48.95/person/year, \$127.50/ratepayer/year and \$0.32/m³. (1999/00: \$38.14 per person, \$101.07 per ratepayer and \$0.23m³).

* Note that the increases from 1998/99 to 2000/01 for this performance indicator are due to increased operating costs of the Christchurch Wastewater Treatment Plant resulting from the capacity upgrade.



Some of the many thousands of waterfowl that frequent the wastewater oxidation ponds by the estuary



Work in progress at the Christchurch Treatment Works. This is part of the \$33.75M capacity upgrade.