



Land Drainage

Christchurch's surface water environment can be categorised into two parts: a natural component and an

Of the average annual bill for each Christchurch ratepayer, which is around \$750, \$38.80 or just under five per cent, is currently spent on operation, maintenance and works on the City's natural and artificial drainage system.

artificially constructed utility system. The former, consisting of 133 km of natural waterways and 54 wetlands has economic, environmental, cultural and recreational value, as well as playing an integral part in flood protection. However, this vital asset has gradually been allowed to degrade over time, making the sustainable management of the overall surface water environment more difficult and expensive. The artificial system, built specifically to control stormwater and groundwater and protect Christchurch from flooding, consists of 138 km of utility waterways, 504 km of piped mains, 23 pumping stations, two sedimentation traps, ten retention ponds and 14 km of stop banks.

Service Options

There are four areas of service to consider in determining what standard of water environment, drainage and flood protection Christchurch people wish to pay for. These are:—

Waterways and Wetlands

Maintaining and enhancing the City’s waterways and wetlands, with some structural improvements, currently costs the average individual ratepayer \$27.10 every year. In order to upgrade all the waterways and wetlands to an environmentally sustainable condition would take a concerted 40 year improvement programme. The work would largely consist of protecting, stabilising, improving and revegetating Christchurch’s river banks and the land around them, which would increase this component of the average annual rates bill to \$31.30. Once completed, this programme would reduce the long term maintenance costs of the City’s drainage system and deliver the benefit of improved ecological, wildlife, landscape and recreational values.

Water Quality

In recent years several wet ponds have been constructed within the City’s stormwater retention basins in an attempt to replicate natural wetlands. These include ponds at Wigram and Halswell Junction Road. They were built to trap contaminants and sediments from road run off and spillages. They also provide wildlife habitat and landscape values. Maintaining these wet ponds costs 20 cents on the average individual annual rates bill. Constructing wet ponds throughout the system would be difficult due to lack of space. However a significant number could be built and would increase the amount spent by the average ratepayer on improving the quality of water in the natural surface water environment to \$19.50 every year. This is a new area of activity and further study is required to determine long term benefits.

Service: Waterways and wetlands

Lowest possible:	\$27.10
Current Spend:	\$27.10
Premium:	\$31.30
Minimum acceptable:	\$31.30

Service: Water quality

Lowest possible:	20 cents
Current Spend:	20 cents
Premium:	\$19.50
Minimum acceptable:	20 cents

Service: Urban drains

Lowest possible:	\$5
Current Spend:	\$5
Premium:	\$12
Minimum acceptable:	\$5

Service: Maintenance Standards

Lowest possible:	\$4
Current Spend:	\$6.50
Premium:	\$7.20
Minimum acceptable:	\$6.30



Urban Drains

Under the present regime one km of timber lined drains are to be relined and 600 metres of drains enhanced each year, accounting for \$5 of the average individual rates bill. A total overhaul of the drainage system, over 40 years, would enhance 60 per cent of all drains, pipe the 20 per cent where a nuisance must be avoided and reline the remaining 20 per cent of drains where space and capacity are important. This programme would increase this cost to around \$12.

Summary

Maintaining and enhancing the Christchurch natural surface water environment, land drainage and flood control system currently costs the average ratepayer around **\$38.80** every year.

To provide a service at a lower standard, with all the possible savings identified, would cut this amount back to **\$36.30**.

To make all the improvements suggested would raise this amount to **\$70**.

To provide a service consistent with Council's *Minimum Acceptable Service Standards* would cost **\$42.80**.

Maintenance Standards

To maintain the standard of the City's drains currently requires vegetation to be cut and litter removed two or three times a year, keeping the grass in the drains at a maximum height of around half a metre, at a cost of \$6.50 on the average rates bill. Reducing this standard to a single annual cutting, meaning longer grass and less tidy drains, would reduce this amount to \$4. Cutting grass in the drains six to eight times each year to keep it no longer than 150 mm would increase this component of the average rates bill to \$7.20 every year.

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Summary of the costs of Land Drainage

Lowest Possible...	\$36.30
Current...	\$38.80
Premium...	\$70
Minimum acceptable service...	\$42.80

What do you think?

If you wish to make a submission on the 1998 Annual Plan, these are some of the questions you might like to consider:

- What do you regard as most important in the Christchurch land drainage system and surface water environment: structurally sound well presented wetlands and waterways, protection and enhancement of the natural water environment, well maintained and efficient urban and rural drains, a high standard of general water quality?
- Are you prepared to pay higher rates to improve the service in any of these areas? If so, where do you believe improvements are most urgent?
- Would you rather pay less in rates for a lower standard of service?
- Are you content that the present service at the present cost is about right?

Please fill in and return the submission form at the rear of this book to make your views known on the maintenance and development of the City's land drainage.

A ground-breaking new approach was recently adopted to managing Christchurch's surface water environment. This emphasises sustainability and the importance of integrating natural and artificial drainage systems. While elements of this approach will incur extra costs in the short term, over time sustainability will reduce costs while improving the recreational and ecological benefits of the City's waterways and wetlands.

Contact

If you would like further information on the service options and the cost implications facing Christchurch in relation to the surface water environment, land drainage and flood control, please contact

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