

15. ADOPTION OF WASTEWATER ASSET MANAGEMENT PLAN 2000



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| Corporate Plan Output: Liquid Waste | |

The purpose of this report is to present the Wastewater Asset Management Plan 2000 (WAMP 2000) for formal approval now that it has been externally audited by Worley Consultants Limited.

BACKGROUND

In September, staff introduced the WAMP 2000 (separately circulated) to a seminar of this Committee and sought feedback on its contents.

DEVELOPMENT OF THE WASTEWATER ASSET MANAGEMENT PLAN 2000

As required by the Local Government Amendment Act (No.3) 1996, the Wastewater Asset Management Plan 2000 provides a 30 year plan of works and associated budgets for the management of the wastewater assets (reticulation, pumping and treatment plants) and for their maintenance in perpetuity according to a level of service required of them. It includes the costs of expansion, operation, maintenance, renewal, replacement, and upgrading and a description of the methods used to derive these.

Revision

This document is the first major revision of the Wastewater Asset Management Plan 1997 and is based on the information available on 30 June 2000. Note: The major items of capital expenditure have already been included in the Council's 2000/01 Financial Plan and Programme.

Key features of the revision are:

- the adoption of most of the recommendations included in the *Summary of Key Strategies* of the first AMP and those subsequently made by Audit NZ.
- adjusted infrastructure valuations based on the City Design asset valuation
- the contribution of PAMS (Pipeline Asset Management System) development,
- the completion of the Belfast upgrade
- the progress of the Christchurch Wastewater Treatment Plant upgrade and wastewater discharge consent renewal
- description of risk management strategies.
- the inclusion of projected figures relating to the Halswell Wigram urban expansion.
- practical recognition of the need for a comprehensive overarching Wastewater Management Plan that will guide the future direction of the development and adoption of appropriate infrastructure and technologies.

The structure of this document is the same as that for the Wastewater Asset Management Plan 1997, which was well regarded by Audit New Zealand. It differs from those produced by some other local authorities by concisely summarising a range of appended existing asset management reports, rather than repackaging such information within the main body of the text. This has the advantage of reducing the size of the document to a more readable version, whilst retaining the detail in the appendices.

Minor reviews and updates will be conducted annually to reflect changes in any of its parameters, while major revisions such as this current one are programmed for every three years.

Depreciation (LRARA Accounting)

Long Range Averaged Renewal Accounting (LRARA), where renewals are regarded as operations and maintenance expenditure (as a depreciation surrogate) has been used in this document, because traditional depreciation does not provide realistic budgets for the management of infrastructural assets. However, future revisions of the asset management plan will make full provision for depreciation, as the New Zealand Society of Accountants has, despite the advice of the officers of this Council, recently declared LRARA not to be acceptable accounting practice.

REVIEWS AND AUDITING

Orion Review

As part of their recent Council commissioned review of the Waste Management and Water Services Units, Orion Networks reviewed the Wastewater Asset Management Plan 1997. At the time of their request, a draft of the 2000 document was not yet ready. Their main point of contention, that it was too brief, resulted from a misunderstanding of the role of the document as a summary of the appended reports. Their other concerns have been addressed within the 2000 revision.

Worley Consultants Ltd Peer Review

The Wastewater Asset Management Plan 2000 was submitted for a peer review to Worley Consultants Ltd, who are the Local Government Association appointed authors of the Infrastructure Asset Management Manual for Australia and New Zealand and providers of associated training for local government officers. Their findings are contained in the report. Overall, they consider that the Asset Management Plan is substantially complete in that all key asset management activities identified in the NZ Infrastructure AM Manual are addressed. Their main suggestions for the improvement of the Wastewater Asset Management Plan 2000 are:

1. Levels of Service. Worleys recommend
 - expansion of the range of indicators
 - changing options into targets through public endorsement
 - showing the impacts of existing and possible future national legislation and Council policy,
 - assessing performance against the targets and showing how any shortfalls could be addressed

Note: Levels of service are to be a focus of the preparation of the overarching Wastewater Management Plan, which is to be completed by the middle of the next financial year. From this exercise the Council will gain a good list of clearly defined and publicly endorsed Levels of Service for which targets can be set.

2. Asset Condition – Plenty of information is reported on pipework and its age, but there is little on condition

Note: The assessment of asset condition from the extensive CCTV (closed circuit television) video tape library and its entry into the PAMS database is underway already..

3. Future demand – There is a need for better information on strategies to deal with the impacts of city growth. (eg. regulation/bylaws, pricing, waste minimisation)

Note: This is another key part of the overarching Wastewater Management Plan that will feed into future versions of the Wastewater Asset Management Plan.

4. Risk management – The section in the document was a bit light on the range of ways the system might fail and how this feeds into decision making.

Note: The Council does have a comprehensive system risk assessment and decision making process. This is accomplished via Lifelines and the constantly improving Sewer Renewal Plan. More detail from these two documents that are appended to the Wastewater Asset Management Plan will be added to the next revision to deal with this perceived deficiency.

5. Optimised decision making – Worleys suggest the development of decision making processes using a life cycle planning approach, identifying the opportunities for optimising costs and strategies being pursued.

Note: This is addressed by the success of the ongoing sewer technology trials such as patchlining and grouting that are significantly reducing renewal and rehabilitation costs. In addition, information in the final stage of the Strategic Wastewater Plan being developed by the Sydney consultants Australian Water Technologies for our reticulation system will enable optimum decision making by Council on:

- the increase in pipework capacity required to cater for future city growth
- the increase in capacity sufficient to meet resource consent conditions on the frequency of wet weather overflows
- the areas of the city best targeted for manhole and pipework grouting, continued gully trap inspection and similar inflow/infiltration reduction strategies

As is flagged in the Wastewater Asset Management Plan 2000, the next major revision will be dominated by the implications of this report, which is due to be finished in April 2001.

6. Improvement Planning – This section needs detail on available resources and better defined timeframes.

Note: This section could contain more detail. However giving more precise dates for improvement is not always that easy or even necessary.

Audit New Zealand

These auditors were not anticipating the Asset Management Plan to have been available before the middle of 2001. Their audit was intended to be less extensive than that for the 1997 document and to consist mainly of seeking evidence for an ongoing improvement plan. Council staff have invited a fuller audit and have supplied Audit NZ with the draft Asset Management Plan.

KEY STRATEGIES

Key strategies recommended are as follows:

1. Adopt this Wastewater Asset Management Plan 2000 showing activities and costs over a 30-year period, from 2000/01 to 2029/30.
2. Develop depreciation curves that match the actual renewal needs of the Christchurch wastewater assets.
3. Lobby central government to have LRARA accounting legislated as an acceptable accounting practice for the management of infrastructural assets.
4. Continue to plan for operational costs to rise in proportion to population growth.
5. Continue to monitor sewer repair and renewal costs and techniques to establish whether the budget can be reduced further by new and improved technology.
6. Make PAMS Condition Module (and associated GIS graphics via Geodata Services) commissioning a priority.
7. Prepare a comprehensive overarching Wastewater Management Plan to provide long term vision for the future of the wastewater system.
8. Add confirmation of Levels of Service for the Wastewater system to the Annual Plan Public Consultation process.
9. Effectively engage Maori in the consultation over Levels of Service.

SUMMARY

The Wastewater Asset Management Plan 2000 and its associated appended documents should provide the Council with confidence that the Wastewater System will continue to be maintained in good working order at a financially responsible cost to the ratepayer.

All major capital works covered in the Asset Management Plan have already been reported to the Council and included in the 2000/2001 Financial Plan and Programme.

A comprehensive long term overarching Wastewater Management Plan will be developed during 2001, and this will address even broader issues than those in the WAMP 2000, including a review of levels of service and the like.

Activities and expenditure on operations, maintenance and renewals are expected to continue similarly to levels of the past, with adjustments for efficiency gains and new technologies, and for servicing new or improved assets, and any higher levels of service required.

The Wastewater Asset Management Plan 2000 has been reviewed by external auditors and is confirmed as covering all key asset management activities identified in the NZ Infrastructure AM Manual. Any identified items of concern have been noted for consideration by the next review.

Recommendation: That the Wastewater Asset Management Plan 2000 be adopted.

**Chairman's
Recommendation:** That the above recommendation be adopted.