

## 4.0 Managing our assets

### 4.1 Asset management model

The asset management planning process implemented by the Council is shown in Figure 10.

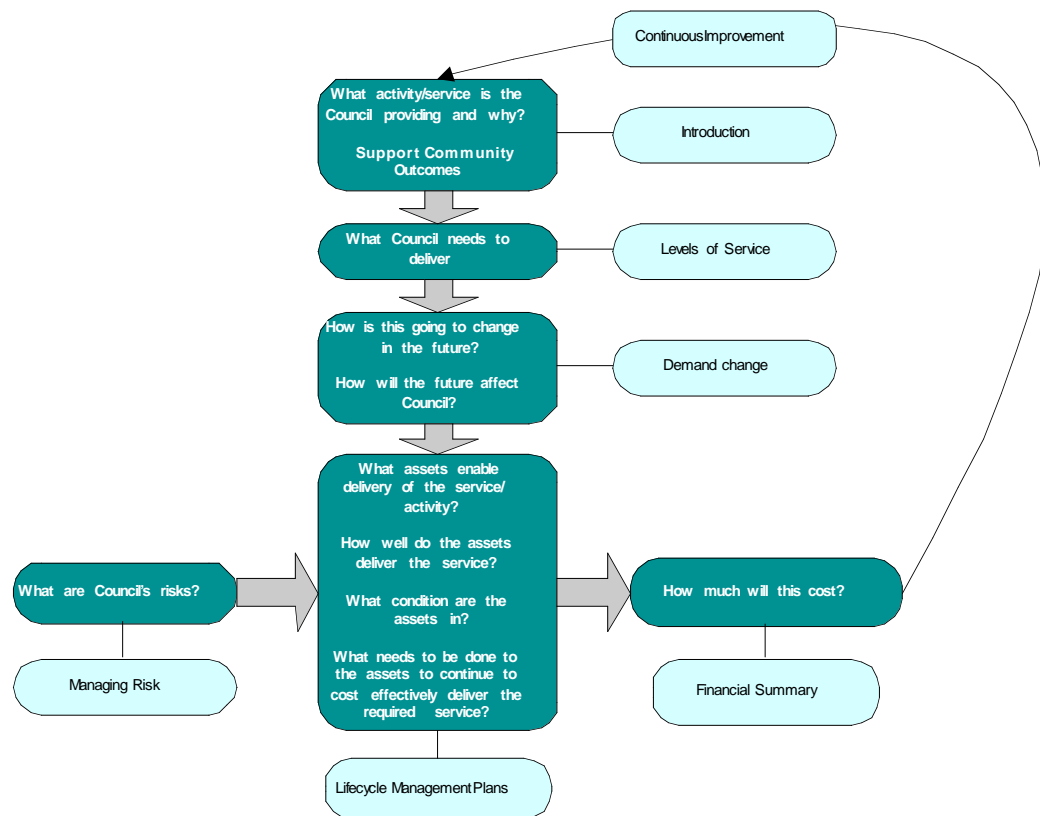


Figure 10 – Asset management planning model

### 4.2 Risk management

Risk management is an inherent part of the Council's overall wastewater management approach. Management of service levels, environmental and demand/growth related risks are dealt with through the strategies outlined in sections two and three of this plan and this section.

The Council's current approach to risk management can be summarised as:

- Address known high and extreme risks with new management and operational strategies and/or a forward programme of remedial works, with priorities based on a risk matrix system.
- Manage the current known lesser risks within the existing strategies and work programmes.
- Where risks are unknown, develop a plan to better identify and/or quantify the risks prior to implementation of appropriate risk mitigation measures.

The Council is improving its understanding of risk which includes programmes to improve asset knowledge. Works activities and associated expenditure requirements are being reviewed constantly as knowledge of these assets improves. Operating and maintaining the assets

The operations and maintenance strategy is intended to maintain the current levels of service, mitigate risk and minimise costs by implementing a balanced programme of planned and reactive works.

Although the Council's maintenance strategy for pipelines is mainly reactive, we operate an asset condition monitoring programme that records service fault notifications, and includes closed circuit television (CCTV) and physical drain inspections. Pumping stations are maintained through regular inspection and overflow monitoring and control equipment. Only piped systems that are considered to be in the "critical"<sup>2</sup> category (18 per cent) are proactively inspected to assess structural integrity.

The use of modelling for main trunk sewer and overflow mitigation enables solutions to be identified to achieve optimum performance of the network capacity. A comprehensive emergency management plan is in place. The Council investigates the opportunities to introduce new technologies and wastewater management techniques.

### **4.3 Asset investment and growth**

The Council aims to enhance the capability and integrity of our assets at lowest long term cost and ensure inter-generational equity.

In terms of asset investment, this is largely driven by the closure of identified service gaps such as capacity shortfalls or recreational water quality issues. The Council plans to ensure that focus is placed on the best value projects that deliver the highest benefits per dollar spent, and that the project option chosen to close these service gaps is the best practicable option.

#### **4.3.1 Asset renewals**

Longer term asset renewal needs are identified through analysis of condition assessments. More detailed, shorter term prioritised programmes are developed with reference to failure history, risk assessment (including consideration of financial, environmental and social implications of failure), and, in the case of critical drains and plant items, CCTV and visual condition assessments and site inspection information. Assets are therefore renewed when analysis indicates it is more cost effective in the long term to replace rather than continue to maintain it.

#### **4.3.2 Asset development**

Upgrade works required to close service gaps are primarily identified as a result of risk assessments and targeted investigations, assisted by computer-based hydraulic models.

Identified upgrade works include the construction of new pipes, increase in size of existing pipes upon renewal and the construction of new works such as pumping station storage. The costs and benefits of development projects are assessed to develop a prioritised works programme.

Pipelines no longer required to transport wastewater and are not being physically replaced are marked as "disused" on records. These pipes are kept intact, where possible, as the Council or others may use these again in the future.

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<sup>2</sup> Pipes for which failure would result in severe consequences, generally large diameter pipes or pipes under dwellings.