1.0 Overview

1.1 Activity description

The wastewater network collects, conveys, treats and disposes of wastewater and is essential for public health, the environment, and the viability of the city as a whole. Each year, the network carries about 29 million cubic metres of sewage to treatment plants at Karori, Moa Point and Porirua. The network is made up of more than 1000 kilometres of sewer pipes and tunnels, and more than 60 pumping stations with a replacement value of approximately $639 million.

The wastewater network is managed in accordance with the wastewater asset management plan, which ensures service level requirements such as network condition and capacity, reducing risk of overflows, response to faults/complaints, and criteria for upgrades and renewals are met. The plan details how the Council will comply with all relevant legislation and regulatory requirements.

Key service level requirements and underlying standards include:

- Overflows from the wastewater system should be minimised.
- Discharges from the wastewater system should have minimal public health and environmental impact.

This plan covers the ten year planning period from 2009/10 to 2017/18.

1.2 Council involvement

Adequate systems for the collection and disposal of wastewater are a fundamental requirement for the health and general well-being of the community, including providing support for business development.

In urban areas, wastewater is most effectively disposed of by means of reticulated systems, allowing the costs associated with maintaining high standards and efficient infrastructure to be spread over a wide population. The existing wastewater system has been developed and built up over many years as a public system to meet community needs.

The Council manages Wellington's wastewater activity because:

- The activity directly supports the achievement of a number of community outcomes (outcomes the Wellington community believe describe the city they wish to live in). It also directly supports the achievement of Council outcome nine (safer – protecting public health and the environment, Figure 2), and supports economic growth of the community.
- The Council can provide a specified level of service in a cost-effective manner.
- The Local Government Act 2002 (section 130) requires the Council to provide water services (including wastewater services) and maintain its capacity to do so.
- The Health Act 1956, (sections 23 and 29) requires the Council to "improve, promote and protect public health" within the district as necessary.
- The community, through the community outcome process, has strongly indicated its support of Council involvement to sustainably manage the wastewater activity to protect public and environmental health, critical infrastructure and property, and to actively reduce adverse environmental impacts.

1.3 Key wastewater issues

Key wastewater issues identified by the Wellington City Council which are being addressed are:

- **Levels of service**. The level of service provided to Wellington City by the wastewater activity is consistent with current industry standards and levels of service provided by other councils in New Zealand and analysis indicates the current level of service broadly satisfies community expectations. The Council will continue to gather data to better describe the actual level of service provided and determine resident satisfaction with a greater level of confidence.
- **Future change**. The effects of future climate change are uncertain, although warmer temperatures, increased peak rainfalls and rises in sea levels, with consequent rising of groundwater levels in some areas, are expected. There is also an increased likelihood of network faults as the public and private systems age. These factors increase risk of stormwater entry into the wastewater network through increased frequency of surface flooding (inflow) and increased groundwater levels (infiltration). Population growth and urbanisation, with associated increases in water use and wastewater generation are also expected to continue. The projected increase in flows, particularly from entry of stormwater and groundwater, requires active management, especially since planning for change and implementing identified initiatives takes time.
- **Environmental impact from wastewater overflows**. Excessive flows during wet weather lead to occasional overflows to the stormwater system through a series of constructed overflows. The stormwater, contaminated with dilute wastewater, is then discharged to watercourses or the sea. Although the public and environmental health consequences of such events may not always be high, it is culturally offensive to iwi and becoming less tolerated by the community. The Council has a number of programmes in place to manage and reduce overflow frequency and impact.
- **Risk of natural disaster**. A catastrophic natural disaster, such as a major earthquake, could limit the ability to safely collect and dispose of wastewater from the community. This would lead to elevated public health risks in a short time frame. Reinstating systems to collect and transport wastewater, as well as to treat and dispose of it, would be costly and would take considerable time.
- **Continuous improvement**. The Council recognises the fundamental need to continually improve its asset management processes. Wastewater must be collected and disposed of at agreed service levels and with increasing efficiency to reduce costs, reduce resource use and minimise environmental impacts.