

Wastewater Asset Management Plan Snapshot

Wastewater Services Mission Statement "To collect, treat and manage sewage in an environmentally and socially responsible manner."

Wastewater Assets in a Nutshell

Kempsey Shire Council owns, operates and maintains the reticulated sewage systems and is the regulator for on-site septic systems. Our customers are the residents and ratepayers of the Kempsey Shire.

There are seven separate sewerage schemes, the major schemes are West Kempsey and South Kempsey, with smaller, independent schemes provided at South West Rocks, Crescent Head, Hat Head, Smithtown/Gladstone, and Frederickton. A community effluent disposal scheme is located in Sherwood/Aldavilla. In Bellbrook, Stuarts Point, Willawarrin and surrounding rural areas single households provide their own treatment through septic tanks.

Council's wastewater systems comprise of 9 sewage treatment plants, 78 pumping stations, 98 observation bores, 274km sewer mains with 4053 manholes. The Current Replacement cost of these assets is \$202,700,883 and Depreciated Replacement Value of \$153,196,509. Asset Renewal Backlog estimated at \$33 Million.

The life cycle cost to provide this service is \$4.3 M per annum. Council's planned life cycle expenditure for year 1 of the asset management plan was \$10.7M which gives a life cycle sustainability index of 2.4. The 10 year maintenance and capital renewal expenditure estimated at \$61.5M, an average \$6.15M per annum. Council's maintenance and capital renewal expenditure for year 2013/14 of the asset management plan of \$8.1M giving a 10 year sustainability index of 1.28. Key lifecycle issues are the substantial investment required for the upgrading of some wastewater infrastructure, particularly the West Kempsey and South Kempsey STPs; networks and catch up with the backlog of inspection and maintenance programs; the resultant rehabilitation works over the next 10 years.

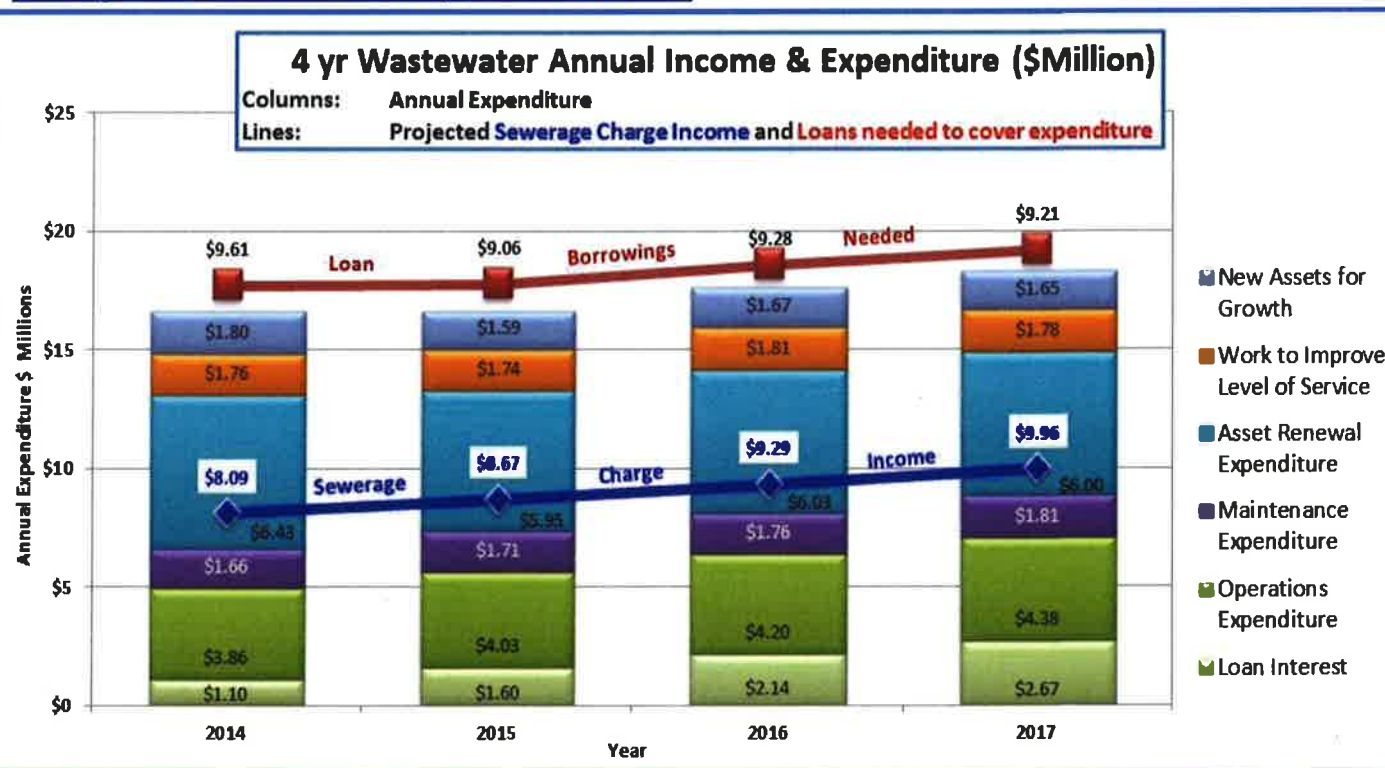
Plans for the future include rehabilitation of the two large circa 1930's sewerage networks, West Kempsey and South Kempsey. Both systems have high stormwater infiltration causing major issues at the aging STPs. The major projects are the construction of one large central STP to enable decommissioning of three old plants, augmentation of Hat Head STP, new sewerage network to supply the South Kempsey employment lands, investigate sewer system for Stuarts Point and investigate beneficial reuse of effluent sludge and increase effluent reuse/recycling. The main programs are the Stormwater Infiltration Reduction Program and mechanical & electrical renewal and upgrade programs, including a major SCADA system upgrade.

Customer satisfaction is addressed through surveys and defined service levels. Wastewater performance indicators currently reported include the number of sewer chokes per year with a result of 39 in 2012/13 (target 90 per annum) reduced from 65 in 2010/11, percentage of sewer service failures responded to within 2 hours of being reported with a result of 99% in 2012/13 (target 90%) and percentage of effluent analyses complying with EPA licences with a result of 96.3% in 2012/13 (target 95%).

Wastewater Asset Condition Traffic Lights

Asset Type	Condition	Hot Spots	Risk Ranking	Council's Action
Sewer Pipes	Yellow	South & West Kempsey has failed EPA pollution licences.	Very High	Council is addressing the backlog via the Infiltration Reduction Program and subsequent sewer relining program.
Manholes	Yellow	Hat Head frequent system failures due to flood inundation	High	Raise and seal low lying manholes and raise and replace controller system
Sewer Pump Stations	Yellow	Low lying SPS subject to flood inundation, pump controllers obsolete, SCADA/telemetry out-dated.	High	Addressed via SPS upgrade program
		Jerseyville low head pressurised system failure leading to discharges into Macleay River and Licence failures	High	Flood proof systems and develop isolation procedures for major flood events
Sewer Treatment Plants	Red	The old South Kempsey and West Kempsey STPs have failed EPA pollution licences and are due to be decommissioned in 5 years.	High	Decommission in 5 years and construct new combined STP
		Odour complaints at West & South Kempsey STPs	High	New STP will have improved buffer zone, improved treatment processes and a direct alert system.
		Hat Head and South West Rocks have poor effluent quality during peak Christmas period leading to EPA compliance failure	Very High	Hat Head - Upgrade STP South West Rocks - Investigate high growth area.
SCADA	Yellow	Old SCADA system is obsolete and is expensive to operate and maintain.	Medium	Renew SCADA system as budget permits.
Observation Bores	Green	Operating satisfactorily, replaced upon failure.	Low	Monitor. No action required

Funding Wastewater Services and Infrastructure Works - The Next Four Years



Funding Wastewater Services and Infrastructure Works - The Twenty Year Plan

