

Water Asset Management Plan Snapshot

Water Services Mission Statement To provide drinking water to the National Health & Medical Research Council standards to residences and businesses and collect, treat and manage the reclaimed water in an environmentally and socially responsible manner.”

Water Assets in a Nutshell

Kempsey Shire Council owns, operates and maintains the town water supply. Our customers are the residents and ratepayers of the Kempsey Shire.

There are seven separate water supply schemes, the largest scheme Kempsey Lower Macleay serving a population of 12,000 is sourced from the Sherwood borefield, which draws from the Macleay River Alluvium charged by the Macleay River. Bores pump to Stuart McIntyre Dam (off-stream storage dam) then water is distributed to 3 main reservoirs. The villages of South West Rocks, Crescent Head, Hat Head and Stuarts Point are sourced from aquifers in the Macleay Coastal Sands. Bellbrook and Willawarrin townships are supplied from shallow bores drawing from shingle beds in the Macleay River.

Council's potable water supply network comprises 4 treatment plants, 9 chemical dosing stations, 38 production bores, 62 observation bores, 26 reservoirs, 2 dams, 16 water pumping stations and 594,000 metres of pipelines, supplying water to over 11,162 connections. The current replacement cost of these assets is \$239M. Asset Renewal Backlog estimated at \$7 Million.

The life cycle cost to provide this service is \$5.4M per annum. Council's planned life cycle expenditure for year 1 of the asset management plan is \$9.6M, a life cycle sustainability index of 1.8. Total maintenance and capital renewal expenditure required to provide this service in the next 10 years is \$44.6M, an average of \$4.6M per annum. Maintenance & capital renewal expenditure for 2013/14 is \$4.1M, a 10 year sustainability index of 0.63. Key lifecycle issues are the investment required for the upgrading of some water infrastructure particularly rehabilitation of Crescent Head Dam or replacement with new balance tanks, a new treatment plant for Willawarrin and improvement of drainage and prolonging life of membranes at South West Rocks WTP. There has been a significant shortfall in maintenance and renewal expenditure in the previous decade. Provisions have been made to catch up with inspection and maintenance programs and resultant rehabilitation works over the next 10 years.

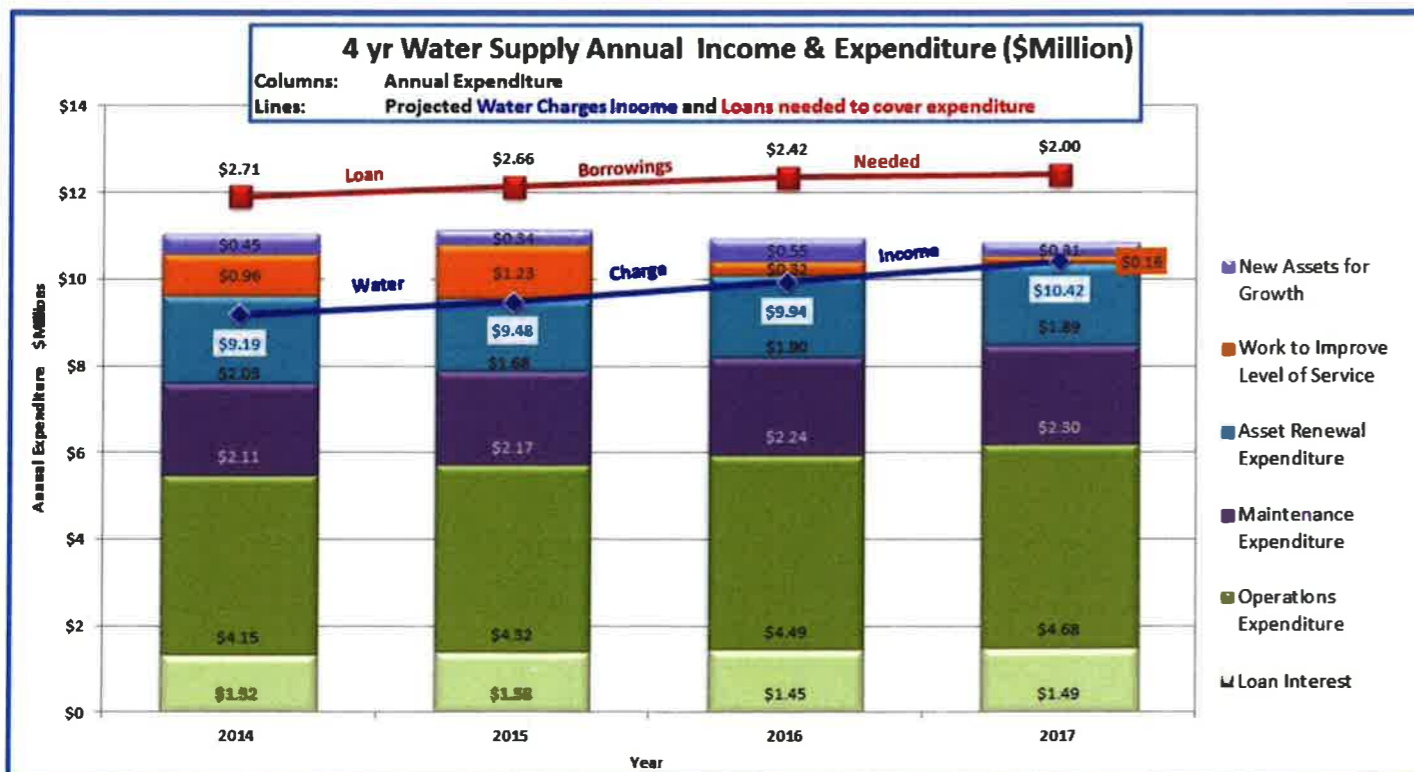
Plans for the future include new trunk mains for South Kempsey Employment Lands in 2013 & new reservoir in 2019. Install fluoridation equipment at Stuart McIntyre Dam & new water treatment plant in 2026. Fluoridation of Crescent Head water supply and linking the Kempsey, Hat Head and Crescent Head water supply schemes are also being investigated. Instrumentation, telemetry and SCADA systems to be upgraded increasing monitoring & automation. Monitoring of factors affecting water quality & quantity of raw water entering through Sherwood borefield & coastal aquifers to be closely managed.

Customer satisfaction is addressed through surveys and defined service levels. Water performance indicators currently reported include number of water main failures per year with a result of 21 in 2012/13 (target of 40 per annum), percentage of water supply failures responded to within 2 hours of being reported with a result of 100% in 2012/13 (target of 90%) and percentage of water quality analyses complying with Australian Drinking Water Guidelines with a result of 97.4% in 2012/13 (target of 98%).

Water Asset Condition Traffic Lights

Asset Type	Condition	Hot Spots	Risk Ranking	Council's Action
Water Pipes	Yellow	Poor quality AC and uPVC Class 9 pipes laid between 1980-1983 are already failing.	Medium	Renewal program is addressing the backlog, 10 high priority renewals 2013/14
Meters & Services	Green	Meters over 15 years old tend to under-read resulting in loss of income to Council.	Low	Changed renewal age to 10 years. Increase rate of water meter renewal to address backlog.
		Old water services tend to leak resulting in high non-revenue water loss.	Low	Renew services when renewing watermain.
Production Bores (Water Source)	Yellow	Many bores, pumps & electrical installations are old and overdue for renewal some are offline due to water quality issues.	High	Priority renewal program developed, 4 bores renewed in 2012/13.
		Hat Head Bore electrical system vulnerable in a bushfire which could result in loss of supply to the township.	High	To be addressed in the Drinking Water Quality Management Plan
Pump Stations	Yellow	Pumping stations, particularly electrical equipment/telemetry equipment, at many stations is due for renewal.	Low	Renewal program in place Bloomfield WPS being refurbished as part of the South Kempsey Employment Lands
Dams	Red	Crescent Head Dam liner is in poor condition – off line	Low	Dam off-line. Investigate options to rehabilitate dam or replace with new tanks
Reservoirs	Green	Five steel reservoirs require cathodic protection.	Low	In Works Program
Water Treatment & Chemical Dosing Plants	Yellow	Willawarrin poor water quality during high river flows	Medium	Decommission and construct a small package treatment plant
		Dept of Health requires fluoridation	Low	In Works Program
		Sherwood Standby Lime Plant requires significant maintenance.	High	In Works Program
SCADA	Yellow	Old SCADA system is obsolete and is expensive to operate and maintain	Low	Renew SCADA system as budget permits

Funding Water Services and Infrastructure Works - The Next Four Years



Funding Water Services and Infrastructure Works - The Twenty Year Plan

