

ISSUER COMMENT

20 May 2019

RATING

Revenue ¹

Aaa Stable

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Raleigh (City of) NC Water and Sewer Ent.

Annual Comment on Raleigh Water & Sewer

Issuer Profile

Raleigh Water & Sewer provides water and wastewater service to the City of Raleigh and several expanding, affluent neighboring suburbs in Wake County, North Carolina. The county has a population of 1,023,811 and a high population density of 1,231 people per square mile. The county's median family income is \$91,701 (1st quartile) and the February 2019 unemployment rate was 3.6% (2nd quartile) ². The main source of water supply is Falls Lake. The City owns two other surface water sources: Lake Benson and Lake Wheeler, treats it at two of its facilities and distributes via a series of water mains and transmission lines. The City collects sewage via a vast network of pipelines and conveys the sewage for treatment to its three treatment plants.

Credit Overview

Raleigh Water & Sewer has an extremely strong credit position. Its Aaa rating far exceeds the median rating of Aa3 for water and wastewater systems nationwide. The notable credit factors include a very large system size, an above average income service area and ample liquidity. It also reflects healthy debt service coverage and an affordable debt profile.

System Characteristics: The system profile of Raleigh Water & Sewer is very strong, with a very healthy 38 years remaining useful life of the capital assets. The system size, measured as operating and maintenance expenses (\$104.7 million), is favorably above the US median. In addition, the median family income is a solid 110% of the US level.

Financial Strength: The financial position of Raleigh Water & Sewer is excellent and is favorable in relation to the assigned rating of Aaa. Both the days cash on hand (1,253 days) and the coverage of the annual debt service by net revenues (2.8x) are very strong and much higher than the US median. Additionally, the days cash on hand has increased significantly between 2014 and 2018. However, the debt to operating revenues (2.9x) is somewhat elevated and above other Moody's-rated water and wastewater systems nationwide.

Legal Provisions: Legal provisions, which typically include a rate covenant requiring a minimum of 1.0x coverage of debt service, are adequate for this sector. Notably, Raleigh's rate covenant requires a higher 1.2x coverage of debt service.

Sector Trends - North Carolina Water and Sewer

Water, sewer and storm water systems in North Carolina tend to be well-maintained and are in line with the national average with respect to asset condition, yet still need ongoing maintenance. Financial metrics are generally on par with US medians. Median debt service coverage (1.9 times) is in-line with the national median while liquidity remains substantially stronger (median 794 days cash). Utilities have an elevated median debt to operating

revenues (3.3 times). Water supply in North Carolina is relatively abundant, and few water utilities face supply constraints, with many systems having ample capacity as a legacy of the loss of water intensive industries. North Carolina utilities have unlimited rate-setting autonomy.

EXHIBIT 1

Key Indicators 3.4 Raleigh Water & Sewer

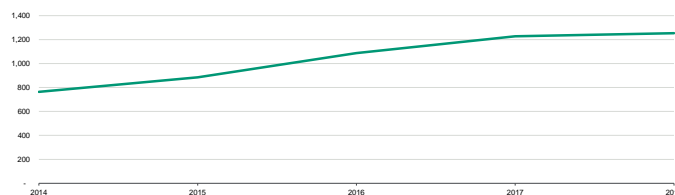
Credit Metrics	2014	2015	2016	2017	2018	US Median	Credit Trend
Annual Debt Service Coverage (x)	2.31x	2.17x	2.21x	2.48x	2.78x	2.10x	Improved
Days Cash on Hand (Days)	764	885	1,088	1,228	1,253	399	Improved
Debt to Operating Revenues (x)	3.7x	3.4x	3.2x	3.2x	2.9x	2.1x	Improved
Median Family Income (% of US Median)	105%	106%	110%	110%	110%	91%	Improved
Remaining Useful Life of Capital Assets (Years)	39	39	38	39	38	27	Stable

Debt and Financial Data (\$000s)	2014	2015	2016	2017	2018	US Median
Net Funded Debt	\$731,377	\$725,168	\$717,638	\$760,122	\$735,308	\$50,840
Total Revenues	\$200,705	\$214,914	\$231,247	\$242,981	\$259,702	\$28,306
Operating and Maintenance Expenses	\$90,589	\$97,077	\$99,311	\$100,622	\$104,712	\$15,859
Net Revenues	\$110,117	\$117,837	\$131,936	\$142,359	\$154,990	\$11,890
Debt Service	\$47,673	\$54,339	\$59,602	\$57,365	\$55,716	\$5,160

Governance/Legal Provisions	Score
Rate Management	Aaa
Regulatory Compliance and Capital Planning	Aaa
Rate Covenant	A
Debt Service Reserve Requirement	Baa and Below

Source: Moody's Investors Service

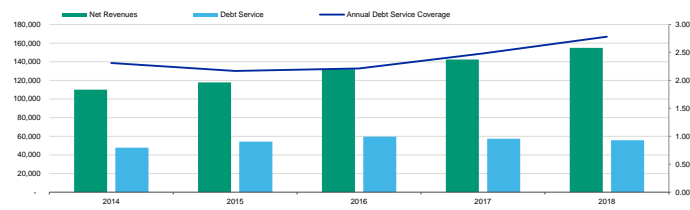
EXHIBIT 2

Days cash on hand has increased from 2014 to 2018

Source: Moody's Investors Service

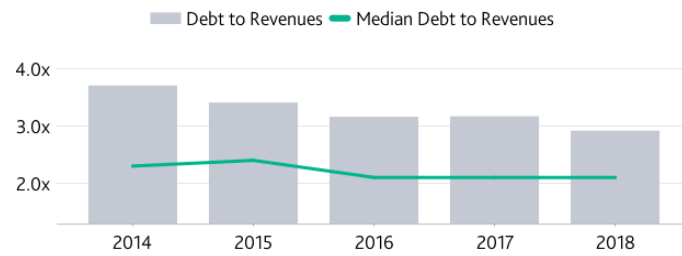
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EXHIBIT 3

Debt service coverage increased from 2014 to 2018

Source: Moody's Investors Service

EXHIBIT 4

Debt to operating revenues decreased from 2014 to 2018

Source: Moody's Investors Service

Endnotes

- 1 The rating referenced in this report is the rating of the senior most lien on the relevant pledged revenues. Some utilities have bonds separately secured by distinct revenue sources. For these utilities, the rating referenced in this report is the senior most rating only on the relevant revenue pledge (e.g., water); the utility could have a higher rating on a different type of revenue bond (e.g., sewer).
- 2 The demographic data presented, including population, population density, per capita personal income and unemployment rate are derived from the most recently available US government databases. Population, population density and per capita personal income come from the American Community Survey while the unemployment rate comes from the Bureau of Labor Statistics.

The largest industry sectors are derived from the Bureau of Economic Analysis. Moody's allocated the per capita personal income data and unemployment data for all counties in the US census into quartiles. The quartiles are ordered from strongest-to-weakest from a credit perspective: the highest per capita personal income quartile is first quartile, and the lowest unemployment rate is first quartile.

- 3 Moody's calculations of various statistics can be different than calculations reported in audited financial statements or offering documents. Moody's makes standard adjustments to reported financial data, to facilitate comparisons across issuers. For definitions of the metrics in the Key Indicators Table, see our [US Municipal Utility Revenue Debt](#) methodology.
- 4 The medians come from our most recently published report, [Medians - Solid financial metrics, ability to raise rates underpin stable sector](#).

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