

CREDIT OPINION

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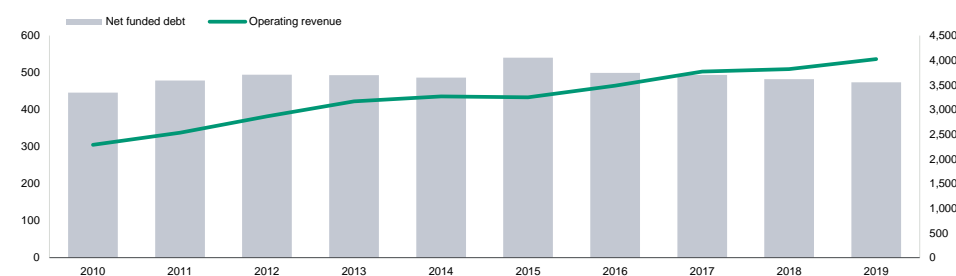
King (County of) WA Sewer Enterprise

Update to credit analysis

Summary

[King County, Washington's Sewer Enterprise](#) (Aaa stable) benefits from its large service territory that includes the cities of [Seattle](#) (Aaa stable) and [Bellevue](#) (Aaa stable). While the coronavirus pandemic has had a significant impact on the region's economy in recent months, strong economic and demographic fundamentals will support long-term credit strength. The sewer enterprise's financial position is healthy and is likely to be insulated from severe economic shocks given the mandatory service provision for its municipal wholesale customers, the delayed and smoothed structure of its primary revenue stream, as well as a willingness by management to adjust rates as necessary. Although financial leverage remains high relative to similarly rated peers, that leverage is declining and does not take into consideration the enterprise's position in the flow of funds relative to a typical municipal retail service provider.

Exhibit 1

Debt has declined as revenue has increased
\$millions


Source: Moody's Investors Service and King County, WA Sewer Enterprise

We regard the coronavirus outbreak as a social risk under our ESG framework, given the substantial implications for public health and safety. While the situation surrounding coronavirus is rapidly evolving, we do not see any immediate credit risks for the enterprise from the pandemic and the longer term impact will depend on both the severity and duration of the crisis. If our view of the credit quality of the King County Sewer Enterprise changes, we will update our opinion at that time.

Credit strengths

- » Very strong liquidity and stable debt service coverage
- » Strong legal requirement surrounding provision of service to wholesale participants
- » Payments to the enterprise from wholesale customers are an operating expense of participants, and senior to their own debt service
- » Strong management team and prudent system planning

Credit challenges

- » Substantial financial leverage
- » Large capital improvement plan that will require significant additional debt

Rating outlook

The stable outlook incorporates our expectation that the enterprise will be able to manage the financial impact of the coronavirus pandemic without materially changing the enterprise's overall credit profile. We expect coverage and liquidity to remain healthy as leverage moderates over time.

Factors that could lead to an upgrade

- » Sustained improvement in the enterprise's financial profile, including strengthened debt service coverage levels
- » Significant reduction in financial leverage

Factors that could lead to a downgrade

- » Substantial and sustained degradation of the region's economy stemming from the coronavirus pandemic
- » Deterioration in financial position, including a prolonged period of weaker debt service coverage or material declines in liquidity
- » Unwillingness to implement service rate increases

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Key indicators

Exhibit 2

King County, WA Sewer Enterprise

System Characteristics

Asset Condition (Net Fixed Assets / Annual Depreciation)	19 years
System Size - O&M (in \$000s)	\$154,307
Service Area Wealth: MFI % of US median	148.9%

Legal Provisions

Rate Covenant (x)	1.25
Debt Service Reserve Requirement	DSRF funded at MADS (Aaa)

Management

Rate Management	Aa
Regulatory Compliance and Capital Planning	Aa

Financial Strength

	2015	2016	2017	2018	2019
Operating Revenue (\$000)	\$433,406	\$464,541	\$502,573	\$509,550	\$536,449
System Size - O&M (\$000)	\$128,688	\$136,528	\$147,981	\$152,381	\$154,307
Net Revenues (\$000)	\$307,325	\$332,082	\$360,910	\$367,407	\$398,851
Net Funded Debt (\$000)	\$4,050,763	\$3,744,027	\$3,703,796	\$3,617,541	\$3,553,040
Annual Debt Service (\$000)	\$226,360	\$235,437	\$238,688	\$246,227	\$242,413
Annual Debt Service Coverage (x)	1.4x	1.4x	1.5x	1.5x	1.6x
Cash on Hand	653 days	1025 days	903 days	576 days	766 days
Debt to Operating Revenues (x)	9.3x	8.1x	7.4x	7.1x	6.6x

Rate Covenant and Debt Service Reserve Requirement are for "parity" lien bonds. O&M reflects adjustments made for non-cash pension and OPEB expenses. Annual Debt Service and Annual Debt Service Coverage includes total obligations. Cash on Hand reflects unrestricted cash and cash equivalents as reported in audits compared to our adjusted O&M.

Source: US Census Bureau, Moody's Investors Service and King County, WA Sewer Enterprise

Profile

The King County Sewer Enterprise is a division of King County's Department of Natural Resources and Parks. The enterprise provides wastewater treatment services to 34 municipal participants and three non-municipal participants that collectively serve 1.8 million residents in the Puget Sound region. The sewer enterprise operations include three major secondary treatment plants, 397 miles of conveyance lines, 48 pump stations and 25 regulator stations. The enterprise also manages four combined sewer overflow treatment plants, four CSO storage facilities, 39 CSO outfall locations and secondary treatment plants on Vashon Island and in Carnation.

Detailed credit considerations

Service area and system characteristics: large service territory includes City of Seattle

Although the coronavirus pandemic is having substantially negative economic effects on the region, we view the sewer enterprise's large Puget Sound service territory as a long-term credit strength. The enterprise provides wholesale wastewater treatment to participants in [King County](#) (Aaa stable), [Pierce County](#) (Aa1 stable) and [Snohomish County](#) (Aa1 stable) that includes 1.8 million residents. [Seattle Sewer Enterprise](#) (Aa1 stable) and the City of Bellevue's sewer enterprise are the two largest participants of King County's sewer enterprise, representing 39.7% and 7.7% of customer accounts.

The county is responsible for construction, operation and maintenance of main trunk, interceptor sewers, pumping stations and treatment plants on behalf of its participants (nearly all of which operate their own collection systems). The sewer enterprise operations include three major secondary treatment plants, 397 miles of conveyance lines, 48 pump stations and 25 regulator stations. The enterprise also manages four combined sewer overflow treatment plants, four CSO storage facilities, 39 CSO outfall locations and secondary treatment plants on Vashon Island and in Carnation.

By ordinance, municipal wholesale participants from within the county are required to continue as agency customers (wholesale customers not subject to a service agreement) even in the absence of a service agreement and must continue as a customer so long as bonds issued to finance the capital projects in the Regional Wastewater Services Plan remain outstanding. A municipal participant or agency customer cannot deliver sewage to another agency without the consent of the county. Municipal participants account for 99.4% of sewage disposal revenue in 2019. Notably, King County sewer enterprise revenue is an O&M expense of the participants and are therefore paid before the debt of their respective wastewater enterprises. Service agreements are in place with each entity through at least fiscal 2036 and several small off-takers already signed extensions to fiscal 2056.

Debt service coverage and liquidity: limited effect from coronavirus; healthy coverage with strong liquidity to continue

The stable debt service coverage of the sewer enterprise is a credit strength, and we expect limited effects from the coronavirus pandemic at this time. Before the outbreak of the coronavirus, senior ("parity") lien debt service coverage averaged 2.15x through 2019, with coverage increasing in each year driven by strong top-line revenue growth. Total coverage, including subordinate lien obligations, averaged 1.48x over this period. Although coverage is relatively low compared to most Moody's-rated wastewater utilities (with median coverage closer to 2.1x), we view it as healthy given the enormous size of the system (\$154.3 million of O&M in 2019 versus the national median of \$10.9 million). We expect coverage to decline modestly in 2020, though coverage through 2026 is not likely to materially deviate from historic levels even as economic conditions improve as debt service will increase from additional borrowings later in 2020 and beyond.

The effects of the coronavirus will be muted because the largest portion of revenue comes predominantly from sewage disposal charges (\$415.3 million of \$536.4 million 2019 operating revenue, or 77.4%), which are generated in a manner that both delays and smooths the effects of any material economic volatility; rates and charges to participants are based upon a base rate and the number of residential customers at the end of the second previous calendar quarter and the average number of residential customer equivalents over a year beginning 15 months prior. The rate increase for 2020 was 0%, while a 4.5% increase will be applied to rates in 2021. The county typically adopts rate increases every two years, but will review the possibility of a rate increase in 2022 when better information on the impact of the coronavirus is available.

Capacity charges, which generated 19.0% of operating revenue in 2019 (\$102.1 million), reflect charges imposed on customers who establish new connections to the sewer system. Although we anticipate a some drop in capacity charges in 2020 because of substantially slower economic activity, its relatively smaller share of total revenue should soften the effect on revenue or coverage.

LIQUIDITY

The sewer enterprise has a strong cash position. At the end of 2019, it held \$323.8 million in unrestricted cash and cash equivalents, equal to 766 days of cash on hand. A substantial portion are identified as bond funds (\$133.9 million) and unallocated insurance recoveries (\$73.3 million). Excluding these monies, the enterprise would still have a healthy 276 days cash on hand. The enterprise also held \$46.3 million in a rate stabilization reserve.

In addition to unrestricted cash, the countywide investment pool is potentially available to all of the county's various funds on a borrowable basis and any such loans are not required to be repaid within the same fiscal year. The system currently does not have authorization to borrow from the pool, but this could be provided if needed with approval from the county's Executive Finance Committee. The pool holds assets with a fair value averaging approximately \$6.6 billion which largely comprises low-risk and relatively liquid US government and federal agency securities.

Debt and legal covenants: very high leverage; satisfactory legal provisions

Legal provisions for the parity bonds (the senior revenue pledge) are satisfactory. The additional bonds test requires net revenue coverage of 1.25x annual debt service. The rate covenants requires 1.15x coverage annually of debt service by net revenue after the payment of operating expenses. The parity bonds are also secured by a shared reserve fund that is relatively strong as it is sized at least equal to maximum annual debt service and is satisfied with a mix of cash and sureties.

Legal provisions for other, subordinate liens are also considered satisfactory. For "parity lien obligations," the rate covenant requires 1.15x coverage of combined annual debt service on parity bonds and parity lien obligations. The additional bonds test requires net revenue of at least 1.25x combined annual debt service on parity bonds and parity lien obligations. Parity lien obligations do not have a reserve fund requirement, but benefit from the county's GOLT pledge.

For the "junior lien," the rate covenant is that net revenue must be at least 1.1x junior lien debt service after satisfying annual debt service requirements for parity bonds and parity lien obligations. The junior lien does not have reserve fund requirements. The additional bonds test is 1.1x junior debt service.

The "Multi-Modal LTGO/Sewer Revenue" bonds have a pledge that has a subordinate lien on net revenue after the junior lien. This lien does not have a reserve fund requirement, but has the county's GOLT pledge. The rate covenant for the multimodal GOLT bonds is 1.1x debt service for combined junior and multi-modal GOLT bonds' debt service. The additional bonds test is also 1.1x debt service for combined junior and multi-modal GOLT debt service.

DEBT STRUCTURE

The system's debt remains high but declined to 6.63x 2019 operating revenue. Outstanding debt currently includes \$2.2 billion of parity bonds, \$581.2 million of parity lien obligations (secured by a limited tax general obligation pledge of the county), \$300 million of junior lien obligations, \$246.3 million of multi-modal/LTGO revenue bonds and \$226.2 million in state loans (secured by the most subordinate pledge of net revenue).

Most the enterprise's debt is in the form of fixed rate sewer revenue bonds, though all junior lien obligations and the multi-modal LTGO revenue bonds are variable. County policies allow for 20% of outstanding sewer obligations as variable rate debt. All the variable rate bonds have bullet maturities, though the sewer enterprise has begun optional redemptions 10 years before their final maturity dates. Each series either has a different credit facility or is in an alternative form that all have expiration dates and will require remarketing between September 2020 and June 2024; the credit facility with Landesbank Hessen-Thüringen Girozentrale (Helaba) that expires in September 2020 will terminate with the refunding of the Junior Lien Variable Rate Demand Sewer Revenue Bonds, Series 2001A and B.

Sewer enterprise managers expect to borrow \$1.2 billion over the next seven years as part of a nearly \$2.2 billion capital improvement plan, with the expectation that most of that debt will be issued as senior lien ("parity") bonds that include loans through WIFIA.

DEBT-RELATED DERIVATIVES

The sewer enterprise has no debt-related derivatives.

PENSIONS AND OPEB

Pension and OPEB liabilities are relatively modest and not a driver of the sewer enterprise's credit profile. At the end of 2019, the enterprise had an adjusted net pension liability of \$166.7 million based on an assumed discount rate of 4.14% (versus the reported 7.40%, which would result in a reported unfunded liability of just 17.2 million). This is a modest 0.33x operating revenue, with total contributions equaling just 1.6% of revenue. Total reported OPEB liabilities in 2019 was just \$1.5 million.

ESG considerations

Environmental

Environmental considerations are an important aspect of the sewer enterprise's overall credit profile given its primary purpose is to provide regional wastewater treatment services. The enterprise is actively addressing combined sewer overflow issues that comprise a substantial portion of its capital program. In 2013, the enterprise entered into a consent decree with the EPA to reduce CSO overflows to meet regulatory standards by 2030. In 2020 the county requested and began negotiations to modify the consent decree given substantially higher cost estimates and anticipated future increases in regulatory requirements.

Social

Social considerations are also an important aspect of the sewer enterprise's overall credit profile given the importance of affordability in providing environmental utility services. Rates and charges paid by customers ultimately reflect those passed on by participants. Under each wholesale customer's service agreement, the entity is required to set its own rates and charges at a level sufficient to cover local costs and the county's rates. Using Seattle as proxy for the system, utility rates are high compared to others across the country, a factor that is partially mitigated by high median wealth measures and affordability programs.

We regard the coronavirus outbreak as a social risk under our ESG framework, given the substantial implications for public health and safety. While the situation surrounding coronavirus is rapidly evolving, we do not see any immediate credit risks for the enterprise from the pandemic and the longer term impact will depend on both the severity and duration of the crisis.

Governance

Governance considerations are incorporated into the sewer enterprise's credit profile, and we view the management team as particularly strong. The sewer system is operated as the Wastewater Treatment Division of the county's Department of Natural Resources and Parks. Operations are run by several appointed officials within the division and are directed by the elected county council and the County Executive. Rate-setting is not subject to regulatory approval by any outside body. Rates are reviewed at least annually and adjustments are approved by the council. The enterprise has a strong history of making appropriate rate adjustments.

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