

CREDIT OPINION

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Honolulu (City & County of) HI Sewer Enter., HI

Update to credit analysis

Summary

Honolulu (City & County) HI Sewer Enterprise's (Aa2 senior lien; Aa3 junior lien) credit profile is strong, supported by a large and economically strong service area, healthy debt service coverage and liquidity, and sound management practices. The system's sizable capital improvement plan to address environmental risks, which will require substantial borrowing in the coming years, is also a significant aspect of the enterprise's credit profile

Credit strengths

- » Large, established service area; local economy continues to strengthen as evidenced by very low unemployment and visitor growth
- » A long history of regular, independently-set rate increases that maintain financial stability, support a substantial capital program, and provide healthy debt service coverage
- » Prudent financial policies

Credit challenges

- » High financial leverage, although debt service coverage remains sound
- » Substantial future borrowing to remain in compliance with Consent Decree

Rating outlook

The outlook for the Honolulu Wastewater System is stable. The enterprise continues to complete projects on time and on budget in order to comply with a 2010 Consent Decree while maintaining very high liquidity and healthy debt service coverage. We expect the system's strong management team will maintain strong financial metrics going forward, despite significant future borrowing plans

Factors that could lead to an upgrade

- » Substantial local economic diversification and improvement in socioeconomic wealth indices
- » Sustained reduction in debt ratio
- » A stronger additional bonds test or other stronger limitations on leveraging the pledged revenues

Factors that could lead to a downgrade

- » Significant leveraging of net revenues above affordable levels
- » Substantial increase in debt ratio
- » Weakened legal provisions

Key indicators

Exhibit 1

Honolulu (City & County) HI Sewer Enter					
System Characteristics					
Asset Condition (Net Fixed Assets/ Annual Depreciation)	47 years				
System Size - O&M (in \$000s)	\$124,456				
Service Area Wealth: MFI % of US median	130.8%				
Legal Provisions					
Rate Covenant (x)	1.20				
Debt Service Reserve Requirement, current issuance	No DSFF				
Management					
Rate Management	Aaa				
Regulatory Compliance and Capital Planning	A				
Financial Strength					
	2013	2014	2015	2016	2017
Operating Revenue (\$000)	\$362,325	\$394,712	\$395,680	\$434,956	\$471,539
System Size - O&M (\$000)	\$128,812	\$132,112	\$132,283	\$126,376	\$124,456
Net Revenues (\$000)	\$233,513	\$262,600	\$263,397	\$308,580	\$347,083
Net Funded Debt (\$000)	\$1,819,768	\$1,856,602	\$1,879,739	\$1,966,339	\$1,982,592
Total Annual Debt Service (\$000)	\$135,214	\$142,439	\$141,207	\$141,782	\$156,887
Total Annual Debt Service Coverage (x)	1.7x	1.8x	1.9x	2.2x	2.2x
Cash on Hand	1240 days	1347 days	1481 days	1816 days	1917 days
Debt to Operating Revenues (x)	5.0x	4.7x	4.8x	4.5x	4.2x

Source: Moody's Investors Service

Profile

Honolulu, the capital and principal city of the State of Hawaii was incorporated in 1907 and located on the island of Oahu. The City and County of Honolulu has an area of 597 square miles and includes the entire island of Oahu. The enterprise system service area is about 79% of the island. As of 2016, Honolulu's population was estimated at 992,605.

Detailed credit considerations

Service area and system characteristics: Large service area

The system provides wastewater services for approximately 79% of the City and County of Honolulu (general obligation bonds rated Aa1/stable), which encompasses the entire 600 square mile island of Oahu. Honolulu's economy has strengthened somewhat since the beginning of the year and we believe the economy will continue to expand steadily in the near term, supported by a combination of healthy visitor volumes from the US mainland, strong construction activity and employment growth in healthcare, hospitality/leisure and professional services. Visitor arrivals remain high and hotel occupancy percentages are also near peak levels. The unemployment

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rate in Honolulu continues to improve and is at historical lows at 1.8% as of October 2017; the state's unemployment rate was 1.9% and the nation was 3.9%. Wealth indicators in Honolulu are favorable with median family income at 130.8% of the U.S.

The customer base is diversified with residential accounts representing the largest by type at 94%. However, sewer service charge revenues are comprised of 64% from residential accounts, followed by 14% commercial/industrial, 6% hotel/resort and 5% military. The ten largest customers accounted for only 7% of revenues. Despite the large military presence on the island, nearly all bases provide for their own treatment needs. The system operates nine wastewater treatment plants, the largest of which provides 69 MGD of average daily treatment, well below the plant's 94.5 design capacity and accounting for just under 60% of total system flow. Average daily demand of 116.9 MGD in fiscal 2016 represented a manageable 74% of treatment capacity. The city's flow projections are somewhat conservative and reflect an increase through 2020 reaching about 92% of treatment design capacity. As such, after the city addresses collection system projects through 2020, the CIP will shift toward treatment upgrades to secondary from primary in alignment with the 2010 Consent Decree. Nearly all wastewater effluent is discharged into the ocean and biosolids are managed largely through nonagriculture land application or delivered to the city's H-power waste-to-energy facility.

Consent Decree-Related Projects Go Out Through 2030

In late 2010 the city, the EPA, the state Department of Health (DOH), and several non-profit environmental groups reached an agreement on a 2010 Consent Decree. The Consent Decree allows 10 years for completion of work on the collection system, 14 years for the upgrade of the Honouliuli WWTP to secondary treatment, and 25 years, with the possibility of a three-year extension, for the upgrade of the Sand Island WWTP to secondary treatment. From 2018 through 2022 the five year capital improvement program is estimated to cost roughly \$2.7 billion and aligns with the system's twenty year CIP. As mentioned earlier, collection system projects remain the department's top priority through 2020 with treatment projects, including treatment plant replacements and upgrades making up a greater portion of project costs in later years.

In addition to actions taken to date, the wastewater department has developed capital improvement plans covering periods of five, ten and twenty years, in part to comply with prior legal actions. The long-range capital plan will also address safety and public health, permit compliance, system expansion and reliability issues. Over the last five years, a majority of capital funding has come from additional system revenue bonds. Going forward management will gradually shift toward more of an even funding mix of revenue bonds and net revenues. Even with recent issuances, the system's debt ratio has remained around the 2015 level (55%) and including the current new issuance increases only marginally on a pro-forma basis.

Proceeds from the current sale will be used to finance a portion of the system's capital improvement program and refund certain maturities of the system's previously issued bonds for annual debt service savings.

Debt service coverage and liquidity: Strong coverage levels expected to narrow given additional borrowing; annual rate increases expected to continue

The system's financial profile is expected to remain sound, with debt service and liquidity levels that are guided by formal policies and supported by proactive management and prudent rate adjustments. Senior lien debt service coverage was healthy at 2.96 times in fiscal year 2017 and coverage is budgeted to decline to 2.6 times in the current year (fiscal 2018) due to flat revenue growth given council's decision hold rates flat (2018); this was the first time council chose not to increase rates in at least 13 years. Total debt service coverage of senior and junior lien debt in fiscal 2017 was similar to recent years at 2.2 times and is also budgeted to decline to 1.96 times (fiscal 2018). Including reimbursable general obligation bonds and SRF loans, 2017 coverage of all system obligations was 1.9 times and is budgeted to drop slightly to 1.7 times in 2018.

Coverage through 2022 of combined senior and junior lien debt service is projected to gradually decline to 1.51 times and similarly total coverage is projected to decline to 1.47 times driven by future borrowing through 2022 between \$280 and \$560 million.

The city was careful to adopt substantial rate increases in advance of substantial borrowing for its long-term capital program, enabling system revenues to keep pace with growing debt service requirements, provide satisfactory overall coverage and generate sound levels of liquidity. Moody's anticipates that the city will continue to raise rates as necessary to maintain satisfactory debt service coverage even if additional borrowing expands beyond currently planned levels to address these regulatory issues.

The city's adoption of substantial multi-year wastewater system rate increases is an important factor in the assigned ratings. After these sizable increases, wastewater rates are above average relative to the rates of other major urban systems on the mainland, although affordable relative to household income levels.

The city is in the planning process for the next round of rate adjustments. Future rate changes are expected to be brought to council by March 2018 as part of the 2019 budget process.

Importantly, the city's long-term financial projections indicate that coverage levels will continue to comply with its adopted policies calling for a satisfactory 1.6 times on senior lien bonds and 1.25 times on combined senior and junior lien bonds; including reimbursable general obligation bonds and SRF loans, projected coverage of all system obligations is expected to comfortably exceed the city's target of 1.05 times coverage on all system obligations. At the Aa2 and Aa3 rating levels on the senior and junior lien bonds, respectively, Moody's believes that it will be important for the city to maintain debt service coverage levels in excess of established policy levels.

LIQUIDITY

The system's liquidity position is strong. Net of restricted cash, the system's 1,917 days cash on hand (fiscal 2017) remains substantial. Officials project similar levels of liquidity over the near term before reserves decline somewhat around 2020. A relatively small portion of these reserves will be utilized for pay-go financing of capital needs.

Debt and legal covenants

The fiscal 2017 debt ratio is somewhat elevated at 49.3% and will grow slightly with the current issuance and future borrowings as the system continues to comply with the Consent Decree. Future borrowing projections include annual issuance of between \$280 and \$560 million through 2022, although it is likely these are conservative projections. Further, over the next 15 year horizon management intends to utilize an increasing portion of net revenues to fund capital projects.

The Series 2018 transactions will not have a debt service reserve fund requirement. Prior issuances were either secured by a debt service reserve funded at 50% MADS, 100% MADS or no reserve requirement. Although a slight credit weakness, the absence of a debt service reserve requirement is mitigated by the city's established practice of segregating 50% of the following year's debt service obligation in the current year budget. Legal provisions also include covenants to maintain rates and charges sufficient to generate net revenues at least equal to 1.20 times the amount needed to pay debt service on the senior lien bonds and 1.10 times on combined senior and junior lien debt service. A similar covenant is provided for the issuance of additional parity bonds under both liens. The reimbursable general obligation bonds, as well as the debt service on the system's state revolving fund loans, are secured by a lien on net system revenues which is subordinate to the lien created by the junior lien bonds.

DEBT STRUCTURE

All of the system's debt is fixed rate.

DEBT-RELATED DERIVATIVES

The enterprise is not exposed to derivatives.

PENSIONS AND OPEB

Honolulu has an average defined-benefit pension burden, based on unfunded liabilities for a multi-employer plan and for its Moody's estimated share of a cost-sharing plan administered by the state. Reported unfunded liabilities in fiscal 2016 were approximately \$1.5 billion, or 63% funded. Pension and OPEB budgetary pressures have been growing and will continue increasing because contribution requirements to statewide pension system are rapidly escalating. The next five years will be critical in how the city addresses these rising costs given the multiple budgetary tools it has available, including the legal flexibility to raise revenue or to trim other operating expenses. Net of reimbursements from the city's self-sufficient enterprises, the city's fiscal 2016 contribution was approximately \$129 million, or 11% of operating revenue. Fixed costs have gradually consumed a greater proportion of the city's budget and in fiscal 2016, pension contributions, debt service and PAYGO costs for OPEB benefits represented 29% of operating revenues. Looking forward, fixed costs could grow to a high, estimated 34% of operating revenue by fiscal 2022, primarily as a result of a four-year phase-in of higher employer contributions (discussed below).

Net of proportional shares allocated to business enterprises based on actual contributions from those entities, the three year average Moody's adjusted net pension liability (ANPL) for the city, under our methodology for adjusting reported pension data, is \$2.7 billion. In

the three years through fiscal 2016, the ANPL has averaged a moderate 2.29 times annual operating revenue and 1.4% of full valuation. For the wastewater enterprise, its pension contributions totaled a manageable 7.6% of its operating expenses (\$9.6 million) as of fiscal 2016.

Moody's ANPL reflects certain adjustments we make to improve comparability of reported pension liabilities. The adjustments are not intended to replace Honolulu's reported liability information, but to improve comparability with other rated entities. The latest, fiscal 2016, system valuation resulted in an increase in the statewide UAAL from \$8.7 billion to \$12.4 billion and a reduction in the funded ratio from 62.4% to 51.3% based on market value of assets, primarily as a result of a reduction in the discount rate from 7.65% to 7.00% and revisions to the mortality table. The legislature recently enacted higher employer contribution rates to address the increased liability. Employer contributions will increase from 25% to 41% for police and fire and from 17% to 24% for general employees over a four year phase-in period. The new rates are projected to eliminate the UAAL by 2045.

The city's OPEB liability is sizeable and remains a challenge. As of July 1, 2017 the unfunded OPEB liability was \$1.77 billion or 1.5 times fiscal 2016 operating revenues. Importantly, in the 2013 legislative session, the state adopted a plan to require phasing in higher annual required contribution (ARC) payments by all counties and the state beginning in fiscal 2015. By fiscal 2019, the payments would reach 100% of the ARC. Honolulu began setting aside amounts to pre-fund its OPEB liability beginning in 2008, and is currently ahead of the required schedule and the 2018 operating budget reflects continued increases in payments which are estimated to equal 80% of its annual OPEB ARC.

While the pension and OPEB actions are credit positive, they will substantially increase all Hawaii local government's (including Honolulu) annual fixed costs relative to budget.

Management and governance

Water and sewer rates are governed by the City and County Council and can be adjusted at any time during the year but generally are approved for July 1 implementation. Legal provisions are bolstered by the formal adoption of conservative debt and financial operating policies by the city council which require compliance with annual targets of 1.6 times coverage on the senior lien bonds and 1.25 times on first and second lien bonds combined. In addition, the city council resolution incorporates a favorable three-month operating and maintenance reserve fund policy which will serve to insulate the system from unexpected events.

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