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RATING ACTION COMMENTARY

Fitch Rates New Orleans, LA's Water and Sewerage Revs 'BBB+'; Outlook Stable

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Fitch Ratings - Austin - 21 Jan 2021: Fitch Ratings has assigned a 'BBB+' rating to the following bonds issued by the city of New Orleans, LA (the city) on behalf of the New Orleans Sewerage and Water Board (SWB):

- --Approximately \$189 million water revenue refunding bonds (taxable), series 2021;
- --Approximately \$185 million sewerage service revenue refunding bonds (taxable), series 2021.

The bonds are scheduled to sell via negotiation on or around Feb. 3, 2021. The water bond proceeds will refund all or a portion of the outstanding water revenue and refunding bonds, series 2014 and the water revenue bonds, series 2015, fund reserves, and pay costs of issuance. The sewerage bond proceeds will refund all or a portion of the outstanding sewerage service revenue and refunding bonds, series 2014 and the sewerage service revenue bonds, series 2015, fund reserves, and pay costs of issuance.

Fitch has also affirmed the 'BBB+' rating on the following outstanding bonds:

--\$189.9 million (prior to refunding) water revenue and refunding bonds, series 2014 and 2015;

--\$252.5 million (prior to refunding) sewerage service revenue and refunding bonds, series 2014, series 2015 and series 2020B.

Additionally, Fitch has assessed the SWB's Standalone Credit Profile (SCP) at 'bbb+'.

The Rating Outlook is Stable.

ANALYTICAL CONCLUSION

The 'BBB+' bond ratings and 'bbb+' SCP reflect a financial profile assessed at 'a', within the framework of strong revenue defensibility assessed at 'a', an operating risk profile assessed at 'bbb', yet constrained by the historical volatility in net leverage, measured as net adjusted debt to adjusted funds available for debt service (FADS). Under normal operating conditions net leverage is expected to range between 6.0x and 10.0x but is susceptible to spikes as occurred in 2017 when the ratio approached 30.0x on operational challenges. Leverage fell to 3.6x in 2019 (fiscal year end Dec. 31) but benefited from cash infusions, some of which are not expected to continue into the future.

The bond ratings and SCP are based upon a consolidated fund analysis of SWB's water, sewerage and drainage funds. Despite each system issuing separately secured debt there is a close financial relationship among all three funds as demonstrated by historical intrafund borrowing and reallocation of costs and assets. The drainage system's debt is secured by a dedicated millage rate (with operations supported by a total of three dedicated millage rates) and, in Fitch's analysis, adjustments are made to exclude the self-supporting drainage debt, as appropriate. Fitch's maintenance of the same rating on the separately secured water and sewerage bonds reflects this close financial relationship between the funds, as well as the common governance structure, rate setting process, customer base, billing system and management team.

CREDIT PROFILE

SWB was created by the Louisiana legislature in 1899 as a special board operating independently of the government of the city (Issuer Default Rating A/Negative). However, any rate adjustments must be approved by SWB's board of directors, the city council and the board of liquidation (the board). The board serves as the debt service custodian for all

SWB debt. SWB provides retail water and sewerage service to nearly 137,000 customers in the city, along with managing the city's drainage system.

New Orleans is a major tourism destination and has a significant commercial presence, which supports growth prospects of the city. The local economy continues to diversify from its historical reliance on shipping and energy with gains in healthcare and technology. The population of New Orleans is estimated at 390,000, slightly more than 85% of the total before Hurricane Katrina in 2005.

Operational Overview

The sanitary sewer system consists of two wastewater treatment plants (WWTP): one on the west bank of the Mississippi River with 40 million gallons per day (mgd) capacity and one on the east bank with 122 mgd capacity. Wastewater treatment capacity is well in excess of total average flows (110 mgd in 2019). The city has ample water supply provided by the Mississippi River, with four raw water intakes and two water treatment plants (one located on each side of the river). Water treatment capacity is well in excess of the system average daily demand, generally less than 40 million mgd, but flows through the plants are much higher (149 mgd in 2019) given the very high amount of water loss in the distribution system.

Coronavirus Considerations

One effect of the coronavirus pandemic was a depleted meter reader workforce. Meter readers who tested positive were required to isolate and were unable to perform their standard reading duties; the result was an increase in estimated bills, rather than billings based on actual meter reads and usage. To increase the number of meter readers, SWB contracted with Olameter to fill the vacant positions and reads increased from around 40% to nearly 80% in the latter half of 2020. The Olameter contract expires at the end of January, by which time SWB expects to have hired all 60 budgeted meter reader positions. The increase in estimated bills resulted in an increase in disputed bills and past due balances. SWB had already been working to decrease the number of disputed billings with increased rates of meter reads versus estimated billings prior to the pandemic.

In addition to affecting staffing levels, the pandemic has also greatly reduced tourism activity in the city. New revenue sources secured in 2019, referred to as Fair Share revenue, included a significant component derived from a new 6.5% short-term rental tax and a 1% hotel sales tax. Original expectations were for around \$20 million to be recouped annually beginning in 2020. Current estimates reflect around \$6.7 million in 2020 and SWB

budgeted just \$4 million in Fair Share revenue in 2021. Management's projections, prudently, only assume 75% revenue recognition of \$15 million in 2022-2024. Billed water consumption took a significant hit in the last half of March 2020 when compared with the same time a year prior and was about 40% lower but has rebounded and from mid-March through the end of September billed consumption is down about 9.5% when compared to the same time period last year. The assumptions related to the lower Fair Share revenue and demand are included in Fitch's forward look and are incorporated into the current ratings and Outlook. Fitch's ratings remain forward-looking in nature, and Fitch will continue to monitor developments related to the severity and duration of the pandemic, as well as revise expectations for future performance as appropriate.

KEY RATING DRIVERS

Revenue Defensibility 'a'

Essential Service Provider in Stable Service Area

The revenue defensibility assessment reflects SWB's role as a monopoly provider of water, sewer and drainage service within the city. The service area generally exhibits stable characteristics and is anchored by shipping and tourism but with a diversifying economic base into healthcare and technology. Fitch considers the monthly bill affordable for a majority of the population. Yet, rate flexibility is likely diminishing as the affordability metric has weakened over the past several years after rate increases. The last year of an eight-year rate package implemented a 10% rate increase on both water and sewer rates in 2020. Rates for 2021 were held flat for both systems.

Operating Risks 'bbb'

Very Low Operating Cost Burden, Significant Capital Investment Needed

Sizable capital investment in recent years has improved overall asset life, but challenges related to implementation of the capital program, including sufficient funding sources,

maintenance of system assets and position within the capital cycle currently limits the operating risks assessment. SWB's production costs are very low on a unit basis despite high levels of water loss.

Financial Profile 'a'

Volatile Net Leverage and Financial Performance

The financial profile assessment reflects Fitch's expectation that net leverage will remain below 10.0x, through its five-year forward look. However, the final rating accounts for the historical variability in SWB's financial performance that can increase net leverage meaningfully in a given year. Net leverage spiked in 2017 after significant unanticipated capital spending related to a flooding event but has since improved. Fitch considers the liquidity profile neutral to the assessment as the liquidity cushion has remained over 90 days since 2016 and coverage of full obligations has averaged 1.2x over the past five years (2015-2019).

ASYMMETRIC ADDITIVE RISK CONSIDERATIONS

No asymmetric additive risk considerations affected this rating determination.

RATING SENSITIVITIES

Factors that could, individually or collectively, lead to positive rating action/upgrade:

- --Sustained net leverage closer to 6.0x in Fitch's base and stress case, assuming stability in the revenue defensibility and operating risks assessments.
- --Successful completion of consent decree (CD) projects by the 2025 deadline could result in movement of the operating risks assessment to 'a'.
- --Evidence of a significantly reduced exposure to volatile financial performance, which allows alignment of the rating with the financial profile assessment.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

- --Sustained actual and projected net leverage closer to 11.0x in Fitch's base and stress case, assuming stability in the revenue defensibility and operating risks assessments.
- --A weakening in the revenue defensibility assessment to 'bbb', if not offset with much lower net leverage.

BEST/WORST CASE RATING SCENARIO

International scale credit ratings of Sovereigns, Public Finance and Infrastructure issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of three notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sectorspecific best- and worst-case scenario credit ratings, visit

[https://www.fitchratings.com/site/re/10111579].

SECURITY

The water revenue bonds are payable from net revenues of the water utility system. The sewerage service revenue bonds are payable from net revenues of the city's sewer utility system.

REVENUE DEFENSIBILITY

Revenue defensibility is assessed at 'a' based on SWB's monopolistic business lines, stable service area characteristics and adequate, albeit diminishing, rate flexibility. All revenue is derived from the SWB's three monopolistic business lines of providing retail water and sewer services, in addition to owning and operating the city's drainage system. Customer concentration is not a concern as annual revenue derived from the top 10 water customers and top 10 sewer customers typically account for less than 7% of annual operating revenue derived from each respective system.

Collection of Past Due Accounts

The revenue defensibility assessment is further supported by management's continued efforts and focus on recouping past due balances. Prior to the coronavirus outbreak, SWB suspended service cutoffs late in 2017 and did not reinstate the shut-offs until August 2018. An increase in disputed bills attributed to a new billing system was the reason for the suspension of shut-offs. Management determined the billing system was functioning properly, and attributed the billing issues to insufficient training on the new system. Management reports that all staff training has been completed along with the implementation of a billing system upgrade.

Because of the pandemic shut offs were again suspended in March 2020 and late fees are also being waived. As noted, current billing disputes are tied more to estimated bills and the shortage of meter readers, and not billing system complications. Fitch expects the billing system issues are now resolved and that collection of past due accounts will begin to improve as the pandemic eases. To improve collection of past due balances any customer with a past-due balance will be automatically enrolled in a payment plan to help spread out overdue amounts across future months.

As of Nov. 30, 2020, around 28,800 customer accounts were on a payment plan. Regardless of the amount overdue, no residential customer will be required to pay more than \$100 per bill above their regular balance, and no commercial customer will be required to pay more than \$200 per bill above the regular balance. Certain customers who satisfy the obligations of the payment plan for an extended period will be eligible for a reduction of their remaining balance. Customers may pay off their outstanding balance or opt out of the payment plan at any time. As of November 2020, there were about 27,900 active accounts with past due balances of 60 days or more that totaled \$46.1 million. An additional \$32.8 million is past due on inactive accounts, which are accounts that SWB has sent to a collection agency.

Service Area and Rate Flexibility

The service area has a demonstrated resiliency generally displaying stable to flat customer growth, yet below average wealth and employment levels. Typically, the median household income tracks about 30% lower than the national level while the unemployment rate is about 30% higher than the national level. Fitch believes the importance of the city as a key

port and a tourist destination, in addition to demonstrated state and federal support in rebuilding assets after Hurricane Katrina support an 'a' assessment for the service area, despite metrics that may suggest a weaker assessment.

SWB maintains rate setting autonomy in that the board of directors has independent rate-setting authority. Adjustments must then be approved by the board of liquidation and by the city council, but there is no additional oversight by any other regulatory or state agency. A multi-year rate package implemented 10% annual rate increases on both water and sewer rates for eight years (2013-2020). The recently adopted 2021 budget held rates flat for both systems. Beyond 2021, SWB expects an upcoming rate study to inform any additional rate adjustments. The current monthly bill for water and sewer services equates to around \$145, based on 7,500 gallons and 6,000 gallons of water and sewer usage, respectively. Fitch considers the monthly bill affordable for only around 60% of the population, limiting overall flexibility.

OPERATING RISKS

Fitch assesses SWB's operating risks as 'bbb' despite an operating cost burden related to water production and sewer flows that is considered very low on a per unit basis, and capex that have exceeded annual depreciation expense for many years, averaging over 250% as of 2019. Fitch's concern is that significant investment is still needed on each system: water, sewer, and drainage. The rate of non-revenue water was high prior to Katrina, reflecting an aging system of water mains and distribution pipelines, underground pipes below sea level and deferred investment in the system. Additional leaks and ruptures occurred after Katrina and the rate of non-revenue water is typically around 70%. This represents a cost to the system in terms of water treatment and delivery (pumping) costs. It also represents a significant cost to the drainage utility that must regularly pump all excess water out of the city's service area. SWB, with the aid of Federal Emergency Management Agency (FEMA) funding, continues to detect and repair leaks and replace distribution pipelines.

Wet-weather events historically overwhelmed the WWTPs causing sanitary sewer overflows (SSOs). As a result, the sewer system is under a CD from the U.S. Environmental Protection Agency (EPA) to reduce SSOs. To date, six of the nine basins have been upgraded or improved and kept progress of the consent decree on track for the 2025 completion date. At this point in time, continued progress on the CD projects and meeting the 2025 deadline is very dependent upon securing additional financing beyond pay-go sources.

SWB communicated its interest in a Water Infrastructure Finance and Innovation Act (WIFIA) loan, administered by the EPA, in October 2019 and was subsequently invited to apply. The original loan amount was expected to be around \$111 million, but the EPA invited SWB to increase the loan amount to around \$256 million and SWB plans on moving forward with the higher loan amount.

It is expected the loan will be finalized and closed by the end of 2Q21 and the loan would largely go towards completing projects required on the last three basins under the CD. WIFIA loans can only provide up to 49% of project funding. SWB expects the remaining matching funds to be contributed through a combination of sewer revenue bonds (previously issued), state revolving fund (SRF) loans, previously contributed capital, cash on hand, and rate revenue. WIFIA loans provide flexible repayment plans and offer low-interest rates that result in lower carrying and issuance costs.

Investment on the drainage system is largely focused on improvements to the power system that powers the pumps and turbines used to pump out excess water during wetweather events. The system is mostly powered by 25 hertz (Hz), which is an outdated frequency that requires conversion to 60 Hz, the common frequency. Investment is planned on replacing and improving turbines and creating redundancies in power supply, but at this time full conversion to 60 Hz is still considered cost prohibitive.

Future Capital Needs

SWB plans to hire a contractor to complete a comprehensive master plan for all three systems some time in 2021, at which point an updated formal capital improvement plan (CIP) is expected to be developed. In the interim, a capex scenario through 2024 developed by management was considered in Fitch's scenario analysis. The five-year plan totals \$1.2 billion. The scenario is considered reasonable, but Fitch notes a significant portion of the identified funding sources (around 45%) come from third parties via state and federal grants and FEMA reimbursements, amongst other sources. A level of uncertainty exists within this funding source as final amounts are not definitively set. Another 30% is expected to be debt-financed with previously issued revenue bonds, SRF loans, and the WIFIA loan. Most of the WIFIA loan is expected to be drawn down by the end of 2025. It is likely if any of the third-party funding falls short additional debt issuance(s) would be needed. The remaining 25% is expected to be funded on a pay-go basis. Fitch believes SWB faces years of sustained heavy capex to keep each system sufficiently operational.

FINANCIAL PROFILE

The financial profile is assessed at 'a', reflecting historical and anticipated net leverage below 10.0x under normal operations. As noted, Fitch made adjustments to exclude the self-supported drainage debt from the analysis and, as such, this debt burden is not included in the net leverage or coverage of full obligations (COFO) calculation. From 2015 to 2016 net leverage measured between 6.0x and 8.0x. Weaker financial results in 2017 were the result of sizeable unplanned capital expenditures (around \$80 million) in response to the flooding event, coupled with decreased revenue collections stemming from customer billing disputes. Performance rebounded in 2018 and 2019 with improved collections and normalized operating and capital costs resulting in net leverage 10.1x and 3.6x, respectively. Results in 2019 benefited from \$35.8 million in new Fair Share cash revenue and sustained stronger collections, which both contributed to a notable improvement in FADS to over \$120 million after a low of \$7.6 million in 2017.

The liquidity profile is considered neutral to the assessment. While COFO dipped below 1.0x in 2017 and 2018 a much stronger 2.3x was recorded in 2019. COFO averaged 1.2x since 2015 and is considered in the neutral assessment. SWB's liquidity cushion has remained above 90 days since 2016, and is also considered neutral to the rating. As there are no purchased water or sewer costs or transfers out to the general government, the Fitch calculated debt service coverage metric is the same as COFO at 2.3x in 2019.

Continued Bond Covenant Compliance

The 2019 audit indicates that both the water and sewer systems have maintained compliance with their respective bond resolutions and generated at least 1.25x DSC over the last five years, after accounting for "extraordinary, non-recurring and non-continuing expenses" that were confirmed by a "qualified independent consultant," as outlined in the respective resolutions. Furthermore, each resolution calls for the respective system to maintain at least 90 days cash on hand (DCOH) as of fiscal year end. Designated funds that Fitch does not include in its liquidity cushion are used in the resolution calculation, resulting in 147 DCOH for the water system and 152 DCOH for the sewer system in 2019. To date, the board confirmed all monthly debt service accrual payments have been made on-time and in-full indicating next year's debt service payments are already accrued at the board. Projections provided by management through 2024 also reflect continued maintenance of at least 90 DCOH for both systems.

Fitch Analytical Stress Test (FAST)

The five-year forward look provided by FAST considers the potential trend of key ratios in a base case and a stress case. The stress case is designed to impose capital costs 10% above expected base case levels and evaluate potential variability in projected key ratios. For the sewer system, 2020 revenue projections are based on preliminary estimates. Sewer operating revenue is then generally held flat in 2021 and increases by 2% in 2022-2024. Operating expenses increase by an average of 4.2% annually.

For the water system, service revenue is expected to be generally flat in 2020 over the 2019 revenue level. Service revenue is then also held flat for 2021, but then increase modestly by 2% annually in 2022-2024, while operating expenses increase by 2% annually over the same period.

The drainage system derives nearly all of its revenue from the three millage rates and this revenue stream is included, less the amount of debt-service supported by the millage. Estimated actual collections in 2020, which were almost entirely received in the first quarter of the year, increased by around 16% over 2019 collections after the reassessment process (occurs every four years). The 2021 budget assumes slightly lower collections, and Fitch assumed a 1% increase in 2022, and 1.5% increases annually in 2023 and 2024, which Fitch considers reasonable, with a level of conservatism. Drainage operating expenses increase at 1.5% annually. Fair Share revenue for each system is also included.

For 2020, projections for Fair Share revenue are based on estimated actuals totaling \$6.7 million. Fair Share revenue of \$4 million is included for 2021, which Fitch considers prudent, and is slated at 75% recovery for 2022-2024 (or about \$15 million annually). The capex scenario provided by management detailing a likely capex spending plan for each system and expected funding sources is also incorporated in Fitch's forward look.

In the base case, net leverage is on an upward trajectory from 2019's level of 3.6x to almost 7.2x by 2024. In the stress case, net leverage reaches 8.3x by 2024. Both projections are supportive of the 'a' financial profile. Fitch also considered an adjusted scenario in which third-party funding sources were reduced should these not come in as anticipated. Under such a scenario, net leverage could increase to around 11.0x. While there is still flexibility within the capital plan to adjust the timing of projects that would likely keep net leverage from reaching that level, Fitch did not scale back the capital plan in the adjusted scenario given the approaching deadline associated with the CD projects and the other projects' importance to maintain system assets. In either the standard or adjusted scenario, COFO is expected to remain solid around 2.0x or higher through 2024 and continue to remain neutral to the rating.

ASYMMETRIC ADDITIVE RISK CONSIDERATIONS

No asymmetric additive risk considerations affected this rating determination.

SOURCES OF INFORMATION

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG CONSIDERATIONS

New Orleans Sewerage & Water Board (LA) [Water, Sewer]: Exposure to Environmental Impacts: 4. SWB has a score of '4' due to the potential for flooding event and historical weather events that have affected operations and financial performance, which is relevant to the ratings in conjunction with other factors.

Apart from the aforementioned score of 'a' related to exposure to environmental impacts, the highest level of ESG credit relevance is a score of '3' reflecting ESG issues that are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or to the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

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APPLICABLE CRITERIA

Public Sector, Revenue-Supported Entities Rating Criteria (pub. 27 Mar 2020) (including rating assumption sensitivity)

U.S. Water and Sewer Rating Criteria (pub. 03 Apr 2020) (including rating assumption sensitivity)

ADDITIONAL DISCLOSURES

Dodd-Frank Rating Information Disclosure Form

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