

Sewerage and Water Board of New Orleans (“SWBNO”)

Issuer: Sewerage and Water Board of New Orleans		
Assigned	Rating	Outlook
WIFIA Loan for Sewer and Water Line Rehabilitation, Repair, and Replacement Program	A+	Stable

Methodology:

- [U.S. Municipal Retail Utility Revenue Bond Rating Methodology](#)
- [ESG Global Rating Methodology](#)

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Rating Summary: SWBNO (“the Board”) will enter into a WIFIA Loan Agreement with the U.S. Environmental Protection Agency (EPA) for approximately \$274.5 million to finance capital projects identified to satisfy a Federal Consent Decree (“the Decree”). It is expected that the WIFIA loan will be closed in November 2021 and the funds will be used to fund Sewerage System rehabilitation projects over the next four years. SWBNO will pledge the Sewerage System’s Net Revenues to repay its WIFIA loan, which is on parity with the Sewerage System’s outstanding Sewerage Service Revenue Bonds.

SWBNO was created by the Louisiana legislature in 1899 as a special board, which operates the Water, Sewerage, and Drainage Systems (“the Systems”) for the City of New Orleans (“the City” or “Service Area”). The Sewerage System serves approximately 390,000 people and is comprised of two distinct wastewater treatment plants (WWTPs) located on the east and west banks of the Mississippi River.

As SWBNO is a legally independent entity from the City, its financial and operational activities are not under City control. Still, the City, along with the Board of Liquidation (BOL), must approve any proposed Board rate increase prior to implementation. The BOL, which was created by the State of Louisiana (“the State”) and is independent from the City, approves all debt issued by the City and its agencies, including SWBNO. SWBNO pursued an eight-year program of 10% annual rate increases from 2013 through 2020. A comprehensive rate and affordability study is currently underway, with an expected completion timetable of mid-2022.

The Board is comprised of eleven members, including the Mayor of the City of New Orleans, representatives of the BOL, and citizens of diverse professional and demographic backgrounds, which KBRA views favorably. Daily management of SWBNO is led by an experienced Executive Director and a team of professionals with requisite senior level experience managing urban utility system operations.

SWBNO maintains an ongoing ten-year capital improvement plan (CIP) for the Systems, where a significant portion of the CIP includes projects to fulfill SWBNO’s obligation toward the Decree. The primary purpose of the Decree is to address sanitary and combined sewer overflows. SWBNO entered a Third Modified Consent Decree with the EPA and United States Department of Justice (DOJ) in July 2014, building off of the original Decree entered into in 1998 and subsequently modified in 2010 and 2013. The delay in meeting prior Decrees was due to impacts caused by Hurricane Katrina. Management states that while the pandemic delayed some construction and other capital work, projects associated with the Decree are progressing on track with milestones. Deadline for compliance with the Decree has been extended to October 2025.

In response to the COVID-19 pandemic, the Board restored services and suspended service shut-offs and late fee policies between March 2020 and July 2021. As a result, the Sewerage System experienced an increase in its accounts receivable during CY 2020, to 17% of operating revenues, up from 14% in CY 2019. Nonetheless, the figure is below the historical average of 24% over the past five years.

Due to its low elevation, increasing subsidence rates, and rising sea level, the City is very vulnerable to climate change and extreme weather events. While the City continues to rebuild from the aftermath of Hurricane Katrina, Hurricane Ida made landfall on the sixteenth anniversary of Hurricane Katrina. Recognizing the Sewerage System’s outsized reliance on electricity to power operations, the Board proactively secured its own turbines in advance of the storm, which led to fewer service disruptions for customers. When the East Bank WWTP temporarily lost power during the storm, the Board responded quickly by dispatching sewage removal trucks to affected neighborhoods, preventing system overload. The Board not only minimized service interruptions caused by the Ida, but it also provided water to other parishes and the national guard.



KBRA views the legal provisions supporting the WIFIA loan to be strong, highlighted by a rate covenant of 1.25x for any parity obligations and a debt service reserve fund (DSRF) of \$22 million funded at maximum annual debt service (MADS). WIFIA debt service is paid on a parity base with Sewerage Service Revenue Bonds.

As the City is the largest in Louisiana and the second-largest on the U.S. Gulf Coast, it is a crossroads for transportation and commerce near the mouth of the Mississippi River. It has the advantage of superior educational attainment versus the state and the nation, though poverty rate of 23% continues to be a challenge. The Service Area, which is coterminous with the City, has benefited from a more favorable wealth level than the State, albeit below the nation's level. Like many communities, the City has experienced the effects of the pandemic, with high unemployment rates which persisted well above the State and U.S. levels, given that the City's major sectors include tourism and hospitality.

Current sewer rates for a typical residential customer are mid-range when compared to other selected wastewater providers. While the rates remain below the industry affordability metric of 2%, the flexibility for rate increases in the future would be limited given that the average bill accounts for 1.78% of 2019 median household income.

The COVID-19 pandemic did not have a material impact on the Sewerage System's CY 2020 performance given the rate increase of 10.0% between CY 2019-2020. Total operating revenues increased by 1.6% Year over Year (YoY) in CY 2020 and Management is estimating an increase of 2% in operating revenues with projected DSC of 9.03x for CY 2021. Liquidity level is solid, evidenced by 176 days cash on hand (DCOH), which exceeds the 90 DCOH Operating Reserve Requirement stipulated in the Revenue Bond documents. Projections provided by Management through 2024 reflect continued maintenance of the minimum Operating Reserve Requirement, as well as achievement of its internal 180 DCOH target. The Leverage Ratio is low, with debt-to-plant equaling a manageable 30% at CYE 2020. KBRA expects the Leverage Ratio to increase moderately due to future borrowing requirements associated with the ten-year CIP.

The Stable Outlook reflects KBRA's expectation that the Sewerage System will continue to achieve solid financial performance as well as strong DSC while executing its CIP to fulfill obligations related to the Decree.

Key Credit Considerations

The rating was assigned because of the following key credit considerations:

Credit Positives

- Leadership team with experience managing an expansive, urban utility system, navigating extreme weather events, and implementing a multifaceted capital plan.
- Effective rate setting and financial management under the new leadership team.
- Strong legal provisions, including a senior lien rate covenant of 1.25x, an additional bonds test, and a DSRF.

Credit Challenges

- Ongoing infrastructure updates to improve the City's defenses against climate change.
- Reduced rate increasing flexibility driven by the service area's demographic profile.

Rating Sensitivities

- Successful implementation of capital projects on-time and on-budget, supported by timely rate increases, resulting in stronger than projected DSC. +
- A reduction in Sewerage System revenues resulting in a sustained decline in DSC or liquidity caused by extreme weather events. -
- Service Area affordability challenges that compromise the Board's ability to raise rates to fund needed capital investment. -

Key Ratios					
(\$ in Thousands)					
FYE December 31	2016	2017	2018	2019	2020
<u>Income Statement</u>					
Total Revenues	\$ 108,241	\$ 114,322	\$ 118,030	\$ 155,360	\$ 147,918
Adjusted Operating Expenses	57,142	64,686	81,271	78,709	87,958
Net Revenues Available for Debt Service	51,099	49,635	36,759	76,651	59,960
<u>Senior DS Requirements and Coverage</u>					
Senior DS Requirements	\$ 23,316	\$ 24,806	\$ 23,139	\$ 21,714	\$ 21,805
Senior DSCR	2.19x	2.00x	1.59x	3.53x	2.75x
<u>Credit Ratios</u>					
Cash and Cash Equivalents	\$ 21,897	\$ 52,905	\$ 30,936	\$ 32,677	\$ 45,806
Days Cash On Hand	129	270	118	125	177
Total Debt	\$ 315,476	\$ 296,775	\$ 278,626	\$ 267,664	\$ 340,475
Debt to Plant Ratio	32.2%	28.4%	25.6%	24.4%	30.3%

Source: SWBNO



Rating Determinants (RD)

1. Management, Governance, Regulatory Framework	A+
2. Legal Mechanics and Security Provisions	AA+
3. Service Area and Demand	A+
4. Operations and Capital	A-
5. Financial Profile and Debt	AA-

RD 1: Management, Governance, Regulatory Framework

Sewerage and Water Board of New Orleans

Created in 1899 by Act 6 of the Legislature of the State of New Orleans, the SWBNO is a special board, independent of the government of the City of New Orleans. Its mandate is to construct, maintain and operate the Sewer, Water and Drainage Systems on behalf of the City. The City, however, maintains no administrative control over the Board's activities, nor its finances.

The Board is comprised of eleven members: the City's Mayor; the chair of the City Council's Public Works, Sanitation and Environmental Committee (or designee); two representatives of the Board of Liquidation; and seven citizens, five of which are council district representatives and two are consumer advocates with consumer protection experience.

Citizen members are appointed by the Mayor, with the advice and consent of the City Council, for staggered four year terms. A two term limit ensures new members rotate on the Board every few years. Nominees are submitted by a Selection Committee that includes broad representation from City institutions of higher education and social and business organizations. Members must have experience in one or more disciplines that will contribute to the effective operations of the Systems, including engineering, environmental quality, urban planning and business administration, among others. In addition, citizens must be registered voters in Orleans Parish and have resided in Orleans Parish for two-years prior to their appointment.

KBRA views the professional and demographic diversity of the Board's composition favorably, notably as related to its citizen members. In KBRA's opinion, the Board's more diverse governance structure is more likely to result in a variety of goals, objectives and opinions being brought to SWBNO's decision making processes. Additionally, the technical experience of certain Board members in the areas of law, finance, engineering and environment helps support timely, cost feasible, capital investments to address capacity needs and regulatory changes.

Board of Liquidation, City Debt

The BOL was created by the State Legislature in 1880 and made a separate and distinct entity (i.e., body corporate) from the City in 1890. It is vested with the exclusive control and direction of all matters related to the issuance of debt by the City and its agencies, including the SWBNO. The BOL approved the Board's planned borrowing under the WIFIA program.

The BOL's nine members include the Mayor, two ex-officio City Council members-at-large, and six appointed syndicate members. The syndicate members are traditionally selected among leaders in the New Orleans business, finance and professional community.

Each month, the SWBNO is required to pay the BOL an amount equal to 1/12th of annual principal and monthly interest on Sewerage Service and Waters System Revenue Bonds secured by Net Revenues of the Sewerage System and Water System, respectively. In addition, if the SWBNO fails to increase water rates to the extent necessary to satisfy the Rate Covenant, the BOL may compel the SWBNO to do so by appropriate judicial proceedings. No such action has ever been required to be taken by the BOL.

Experience

The Executive Director (ED), General Superintendent and Special Counsel are appointed and compensated by SWBNO. The Executive Director manages various general administrative functions, including accounting, budgeting, information systems, personnel and risk management. Responsibility for operation of the Systems, engineering, facility maintenance, and environmental affairs rests with the General Superintendent. Special Counsel manages the legal department and provides legal advice to SWBNO.

Executive Director

The Board's current ED, Ghassan Korban, joined the Board in 2018, bringing over 30-years of public service experience to the position. Prior to joining SWBNO, Mr. Korban had served as the Commissioner of the Milwaukee Department of Public Works, having ascended to that position after a 20-year career in varying engineering, construction and project management roles. In KBRA's view, Mr. Korban brings a level of depth and experience critical to managing a large, capital intensive, urban utility system. Such experience is expected to augment the Board's ability to address outstanding Consent Decree projects as discussed below.

Chief Financial Officer

KBRA's primary financial contact at the Board is the Chief Financial Officer (CFO), Grey Lewis. As CFO, he is responsible for all financial, accounting, budgeting and related matters. Mr. Lewis served as an Audit Director in Ernst & Young's New Orleans office for approximately seven years and has more than two decades of public accounting experience. KBRA believes Mr. Lewis' background and tenure in a senior accounting/audit position aligns well with what is required of a CFO at an urban utility system.

Succession Planning

The only Board leadership position that is currently vacant is Communications Director, though a national search is ongoing. Since becoming ED and having filled numerous positions in a relatively short period of time, including the CFO, Chief Administrative Officer, and General Superintendent, Mr. Korban has emphasized the importance of succession planning among managers and staff. To this end, a formalized training and succession plan has been included as part of the strategic planning process. The Board's formal Strategic Plan is on target for completion in December.

Rate Setting Authority & Process

Service rates are designed to recover the operation, maintenance and capital costs from each customer class based upon the cost of providing service to that particular class. Rates established by the Board do not become effective until approved by the BOL and City Council. Consequently, effective coordination among all parties is integral to ensuring rate affordability and the timely implementation of necessary increases in advance of capital projects.

KBRA notes that the SWBNO, the BOL and City Council successfully implemented annual 10% increases to Sewerage System rates for eight years beginning Jan. 1, 2013. The final rate increase occurred on Jan. 1, 2020. A comprehensive rate study is currently underway, with an expected completion date of mid-2022.

Under the General Bond Resolution, a Rate Stabilization Fund is created and held by the Board. The purpose of the Rate Stabilization Fund is to provide rate predictability for customers and to prevent unexpected, significant rate increases to satisfy bond covenants. As further described in RD 2, the SWBNO may transfer amounts from the Rate Stabilization Fund to the Revenue Fund to satisfy two of the three requirements of the Rate Covenant.

Capital Plan Management

The SWBNO maintains an on-going, ten-year CIP for the Systems funded from various sources, including bond proceeds, grants, Net Revenues from the operation of each System and certain revenues received by the City and paid to the Board. CIP projects consist of projects to ensure compliance with the Board's Decree (described below), infrastructure projects undertaken in consultation with the City, and other improvements as prioritized by the SWBNO.

Consent Decree

Not unlike many urban utility systems, the SWBNO is a party to a consent decree with the EPA and DOJ. The Board's original Decree dates back to 1998, and has been amended several times thereafter. The most recent amendment to the Decree occurred on July 17, 2014, with an extended timeline for completion of October 2025. The goal of the Decree remains correcting System overflows by increasing capacity through rehabilitation; reducing cross-connectivity; improving response times to remedy overflows; and other items as required by the Clean Water Act and Clean Air Act.

The Board's 10-year CIP for 2021 through 2030 identified necessary asset and infrastructure investment across its Systems. For 2021, the Capital Budget, which represents the first-year of the CIP, is \$465.5 million; the Sewerage System accounts for just over 40% (\$188.6 million) of the total. Funding sources include proceeds of outstanding bonds and bonds yet to be issued; proceeds of a WIFIA loan; and other federal sources, including FEMA reimbursements. A portion of funding will also be supported by internally generated funds.

The ED and CFO report that certain CIP projects experienced some delay beginning in March 2020 as a result of the pandemic. However, projects have continued to progress toward key milestones, notably those intended to satisfy the Decree. The JIRR roadway project, a major initiative being co-managed with the City Department of Public Works, remains on target for completion in 2023.



Financial Management Policies and Procedures

Clearly articulated, financial policies and procedures are documented, reflecting favorably on the SWBNO leadership team.

The Finance Policy, most recently updated in December 2019, establishes financial management practices that align with industry best practices and support financial resiliency and continuity. Key highlights of the Finance Policy are noted below.

- Maintenance of operating cash reserves equal to a target of 180 days cash on hand, calculated using the prior year, audited values for operations and maintenance expenses. This target does not supersede the Operating Reserve Requirement of a minimum 90 days cash on hand required by the General Sewerage Service Revenue Bond Resolution.
- Maintenance of senior debt service of coverage of 1.25 (x).
- Creation and annual updating of a 10-year CIP.
- Development of a sound investment policy for invested balances and reserves.

A Business Continuity Plan was adopted by SWBNO in July of 2018 outlining tools and procedures to follow in the wake of exogenous events, including natural disasters and cyber-attacks, among others. The overarching goal of this Plan is to minimize service interruptions and recover mission essential functions of the Board as soon as possible.

Internal Controls

Under the current ED, the Board continues to make progress in addressing previously identified deficiencies in internal controls. Several of these deficiencies pertain to the 2016 conversion of the once-daily, batch process customer billing system, to a real-time, continuous update process. Following the conversion, various billing issues arose, including an increase in estimated bills, billing disputes, and late billings. These billing issues subsequently led to an increase in adjustments to customer accounts, including invoice corrections.

The Louisiana Legislative Auditor's Office (LLA) conducted a 2020 Performance Audit of the new billing system, identifying myriad deficiencies, including system implementation errors, inadequate employee training, and late meter readings, among others. As of March 2021, the LLA issued a follow-up Performance Audit Services report, noting the Board had successfully implemented 3 of the 11 findings of the 2020 Audit, with 8 recommendations still in process. According to SWBNO's leadership, the Financial Team and the Customer Service Team are partnering closely to resolve the outstanding issues.

The Dec. 31, 2020 Single Audit Report, prepared by the Board's auditor, noted that two prior findings related to the reconciliation of construction in progress and pension trust fund accounting had been fully resolved.

ESG Management

KBRA typically analyzes Environmental, Social, and Governance (ESG) factors through the lens of how issuers plan for and manage relevant ESG risks and opportunities. More information on KBRA's approach to ESG risk management in public finance ratings can be found [here](#). Over the medium-term, public finance issuers will likely need to prioritize ESG risk management and disclosure with the likelihood of expansions in ESG-related regulation and rising investor focus on ESG issues.



Environmental Factors

The Board's strategic and master planning processes consider the impacts of climate change on the operation of its Systems. Its current five year Strategic Plan, expected to be completed in Dec. 2021, establishes business processes and goals which acknowledge and reflect the increased frequency of severe weather events. A Master Plan, which examines similar processes and goals for technology, operations, personnel and systems over a longer term, 20-year horizon, is expected to follow in 2022.

Physical Climate Risk: SWBNO's service area has experienced more intense rainfall over the past several years associated with both tropical and extratropical storm systems and weather fronts. To better manage these events, the Board has partnered with stakeholders at the City, State and Federal level on various infrastructure initiatives. Such initiatives include supporting the State's 50-year coastal master plan; advocating for the nonprofit community's urban water plan; and closely working with the Army Corp of Engineers on drainage improvements throughout the City.

Leadership of SWBNO discussed with KBRA its efforts to prepare for Hurricane Ida. Recognizing the Sewerage System's outsized reliance on electricity to power operations, it proactively secured its own turbines in advance of the storm. These turbines were activated during the peak of Ida's heavy rain and storm surge, leading to fewer service disruptions for customers. When the East Bank WWTP temporarily lost power during the storm due to a broken cooling system fan blade, the Board responded by dispatching sewage (i.e., septic tank) removal trucks to affected neighborhoods, thereby preventing a System overload.



Social Factors

SWBNO's customers, along with the City, continue to support Board capital investments that upgrade and expand capacity of the Systems, and improve service. Historical rate increases needed to fund these investments were widely accepted, including as part of the most recent 8-year rate program, which concluded in 2020. More recently, however, SWBNO's leadership has acknowledged that rate affordability on a go-forward basis needs to be considered as part of its strategic planning efforts.

As noted above, a comprehensive rate affordability study is in process, with results expected by the end of 2021. In addition, SWBNO plans to invest in outreach efforts that socialize rate increases the affordability study may recommend. Board leadership notes that the City's business community has been a strategic partner in planning for future rate increases, including analyzing the impact of a potential stormwater fee in future years. SWBNO's newly developed Customer Advisory Committee has been a similar ally in sourcing community perspective and feedback on rates.



Governance Factors

The Board's leadership team has identified cybersecurity training and the safeguarding of proprietary and confidential information as key components of its planning efforts. To that end, SWBNO periodically tests its various information technology systems and proactively remedies weaknesses upon discovery.

Information System Administration, the unit responsible for data security and integrity, reports to the Board's Chief Administrative Officer (CAO), who reports directly to the ED. The current CAO, Dave Callahan, has been with SWBNO since 2019 and is part of the leadership team recruited and hired by Mr. Korban. The Information Systems Department is responsible for managing the software and hardware systems supporting Board operations. It includes directly employed professionals, as well as consultants retained via contract with two external firms.

The Board was recently visited by the Cybersecurity and Infrastructure Agency (CISA), a standalone federal agency under the Department of Homeland Security (DHS), and completed a CISA-administered risk assessment. Such assessment is helping guide the Board through various cyber projects, including system hardening and segregation, and upgrading its Supervisory Control and Data Acquisition (SCADA) system. SCADA is a computer-based system for gathering and analyzing real-time data to monitor and control equipment that manages critical and time-sensitive materials or events.

SWBNO maintains computer and technology systems that are separate and apart from those of the City. Consequently, it was not impacted by the cyberattack the City faced in December 2019. During that event, the City's electronic capabilities were impacted for several weeks, though no financial data or banking activity was compromised.

RD 2: Legal Mechanics and Security Provisions

SWBNO will enter into a WIFIA Loan Agreement with the EPA for approximately \$274.5 million to finance capital projects identified to satisfy the Decree. SWBNO will pledge the Sewerage System's Net Revenues to repay its WIFIA loan, which is on parity with the Sewerage System's outstanding Sewerage Service Revenue Bonds.

Rate Covenant

Under the General Bond Resolution, SWBNO has pledged to set and maintain rates to provide a minimum of 125% of annual debt service requirements of the WIFIA loan and parity senior debt and 110% of annual debt service requirements of all outstanding debt (including subordinate lien), inclusive of transfers from the Rate Stabilization Fund. Rate covenant is 100% of annual debt service requirements of all outstanding debt when excluding transfers from the Rate Stabilization Fund.

Additional Bonds Test (ABT)

The ABT adequately limits overleveraging, providing for the issuance of additional parity bonds if i) estimated net revenue for each of the five fiscal years after issuance of the additional debt is at least equal to 1.25x of the Maximum Annual Debt Service (MADS) on outstanding and proposed bonds, subject to adjustments for approved rate increases and system expansions, or ii) net revenue is at least 1.25x MADS on outstanding and proposed bonds.

Debt Service Reserve Fund (DSRF)

The WIFIA loan will have a DSRF equals to MADS.

Waterfall/Flow of Funds

SWBNO's Sewerage System gross revenues are deposited into the Revenue Fund, according to the General Bond Resolution. Revenues are applied from the Revenue Fund in the following priority: (i) to pay all maintenance and operation expenses; (ii) to pay debt service, including WIFIA debt service; and (iii) to fund Debt Service Reserve Funds. Funds are then applied through the Flow of Funds, as presented in the WIFIA application (Figure 1).

Please note that Revenue Funds for the Water and Drainage Systems are maintained separately.

Bankruptcy Analysis

KBRA has consulted outside counsel and the following represents our understanding of the material bankruptcy issues relevant to the WIFIA Loan.

The Board is a political corporation created by act of the Louisiana Legislature as a special board, independent of the City's government, to maintain and operate the Water System, Sewerage System and Drainage System for the City (collectively, the "System"). The Board is an autonomous legal entity with respect to the management of its business and function of providing water, sewerage and drainage service to customers in the parishes within its geographic reach. As such, the Board is legally independent of the City of New Orleans.

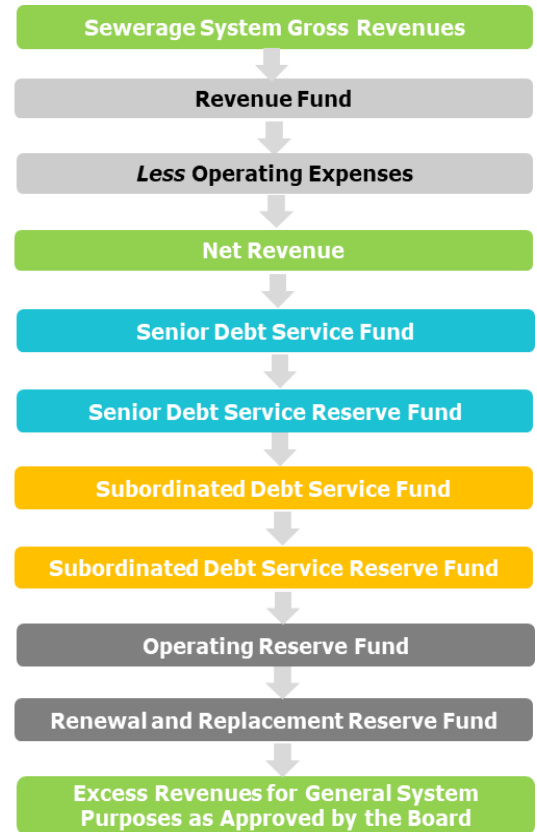
To be a debtor under the municipal bankruptcy provisions of the U.S. Bankruptcy Code (Chapter 9), a local governmental entity must, among other things, (i) qualify under the definition of "municipality" in the Bankruptcy Code, and (ii) must also be specifically authorized to file a bankruptcy petition by the State of its formation. Here, the Board is a public board and public corporation created under Louisiana state law. As such an entity, it meets the definition of a municipality under Chapter 9 of the U.S. Bankruptcy Code. As to authorization, under current Louisiana law no political subdivision of the State, including the Board, may file for protection under Chapter 9 of the Bankruptcy Code unless such filing is approved by the Louisiana State Bond Commission, the Governor and Attorney General of the State. Further, no political subdivision of the State, after filing for bankruptcy protection, may carry out a plan of adjustment of debts approved by the bankruptcy court until such plan is approved by the Louisiana State Bond Commission, the Governor and Attorney General of the State.

Liens and pledges that survive a Chapter 9 filing

Chapter 9 provides for post-petition recognition of (i) a security interest represented by a pledge of specific special tax revenues or of enterprise revenues (referred to as a lien on "special revenues") and also (ii) a statutory lien (one imposed by statute) on revenues pledged for government obligations. Such special revenues and statutory liens should both continue to apply to pledged revenues acquired by a local government entity during a Chapter 9 case, and survive the conclusion of the Chapter 9 proceeding. However, other consensual pledges and liens arising by indenture, resolution or similar document, except to the extent they cover proceeds of collateral pledged prior to bankruptcy, are generally all cut off by Section 552 of the Bankruptcy Code as of the petition date.

KBRA has consulted outside counsel, and is advised that Louisiana law provides by statute a lien on property pledged by a public entity in connection with the issuance of securities, which arises automatically and is not subject to discretion by the public entity, or public filing. Should the Board become a debtor in a bankruptcy proceeding, if such lien were determined by the bankruptcy court to be a "statutory lien" under applicable U.S. Bankruptcy law, the WIFIA Lender would be treated as a secured creditor as to the Net Revenues in the bankruptcy proceeding of the Board, independently of whether there is a special revenues lien on Net Revenues (discussed below). However, the relevant Louisiana lien statute has not been interpreted by any reported bankruptcy court decision, and thus the potential result for the WIFIA Lender as holder of the Bond remains uncertain.

Figure 1



Source: SWBNO



Pledged Revenues as Special Revenues under the Bankruptcy Code

Because the Pledged Revenues are generated by the System, and the Loan will be issued, among other sources of funds, to finance the WIFIA Projects that are a part of the System (and such funds are not to be used for general purposes of the Board), KBRA understands that the Pledged Revenues should qualify as “special revenues” as that term is defined in Chapter 9 of the Bankruptcy Code.

There are separate bankruptcy protections for revenue-supported debt that falls within those special revenues definitions. Assuming that the Loan is in fact secured by a pledge of special revenues as so defined, it is KBRA’s understanding that, if the Board were permitted to file for protection under Chapter 9, it would generally be expected that such filing should have little to no effect on the payment of the Loan during the bankruptcy case – assuming there is no shortfall of funds to make debt service, and depending on the individual priority of Loan payments among the total System obligations payable from System Revenues.

That stated, there are several additional issues that arise. If the Board were to become a debtor in a proceeding under Chapter 9 of the Bankruptcy Code, the bankruptcy court could possibly decide that (i) post-bankruptcy revenue debt obligation payments by the Board are merely optional and not mandatory under the special revenues provisions of the Bankruptcy Code and/or (ii) the automatic stay exception for special revenues in those provisions does not apply (including to possible enforcement action by the WIFIA Lender or a bond Trustee) or is limited to amounts then on hand with the bond Paying Agent or the Board. If the Board were to refuse to make Loan payments voluntarily and the bankruptcy court were to interpret the Bankruptcy Code in that (or a similar) fashion, the parties to the proceedings may be prohibited for an unpredictable amount of time from taking any action to collect any amount from the Board, or from enforcing any obligation of the Board, without the bankruptcy court’s permission. However, it is KBRA’s understanding that such a ruling would be contrary to historical experience in Chapter 9, and the clear intent of Congress regarding the continued payment of government revenue debt obligations post-bankruptcy, as expressed in the legislative history for the special revenues amendments to Chapter 9 and as interpreted in properly-reasoned existing (albeit limited) case precedent under Chapter 9.

It is also KBRA’s understanding that, assuming the pledged Revenues are in fact determined to be “special revenues,” the Bankruptcy Code provides that, to keep revenue-generating government assets operating, special revenues can be applied to necessary operating expenses of the relevant project or system ahead of all other obligations – including payments to holders of revenue debt obligations. This rule applies regardless of contrary provisions of the transaction documents, if such governing documents do not adequately provide for payment of necessary operating expenses. In determining necessary operating expenses for the System, in a Chapter 9 case the bankruptcy court thus may not be limited by the provisions governing the flow of funds or that define Operating Expenses, in the WIFIA Loan Agreement or other Loan issuance documents.

One other issue bears mention. While there is no case law from which to make a definitive judgment, it is possible that, in the context of confirming a Plan of adjustment in a Chapter 9 case of the Board where the plan has not received the requisite consent of the WIFIA Lender, a bankruptcy court may confirm a plan that adjusts the timing of payments on the Loan or the interest rate or other terms of the Loan, provided that (if either or both liens are determined to exist) (i) the WIFIA Lender retain its statutory lien and/or special revenues lien and (ii) the payment stream has a present value equal to the value of the revenues subject to the statutory lien and/or special revenues lien.

RD 3: Service Area and Demand

System Accounts

SWBNO’s Sewerage System serves approximately 390,000 people through, as of FY 2019, more than 134,000 customers. In FY 2019, residential customers comprised 91.9% of accounts and 58.5% of gallons sold.

Figure 2

Sewerage and Water Board of New Orleans				
Distribution of Customer Accounts by Type FY 2019				
Type of Unit	Number of Customers	% of Total	Sales (000,000 gal)	% of Total
Residential:				
Single Family	118,664	88.5%	7,526	53.7%
Multiple Family	4,536	3.4%	669	4.8%
Subtotal	123,200	91.9%	8,195	58.5%
Commercial	10,792	8.1%	5,757	41.1%
Industrial	23	0.0%	56	0.4%
Subtotal	10,815	8.1%	5,813	41.5%
Total	134,015	100.0%	14,008	100.0%

Source: SWBNO

The adopted 2021 operating and capital budgets project that 62.9% and 36.8%, respectively, of sewer sales revenue will be derived from residential and commercial customers, with industrial customers accounting for a minimal 0.3%.

The Board’s customer base is diverse, with the top 10 customers accounting for 5.35% of sewerage revenue in CY 2019 and only one customer accounting for more than a 1% share.

Figure 3

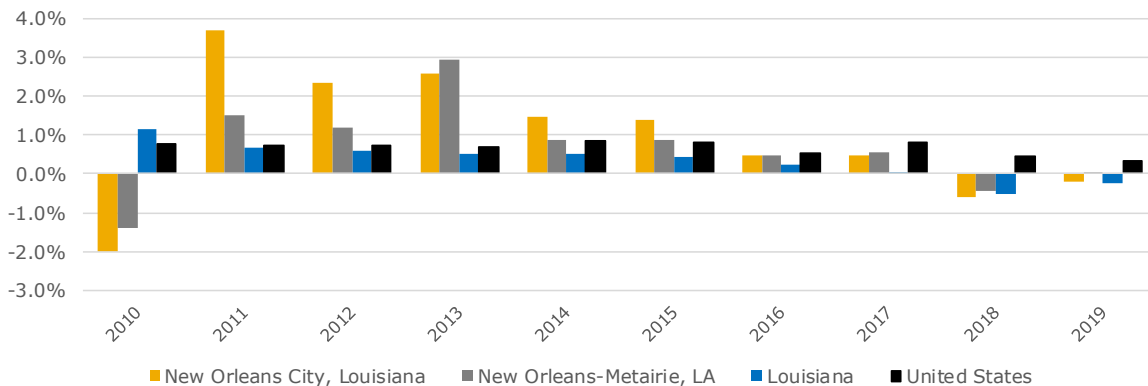
Sewerage and Water Board of New Orleans				
City of New Orleans Largest Users FY 2019				
Rank	User	Gallons Used (in 000)	Sewerage Revenue	Percent of Revenue
1	Tulane University	206,009	\$ 1,852,797	1.29%
2	Hyatt Regency NOLA	165,964	1,226,015	0.85%
3	University of New Orleans	76,792	682,665	0.48%
4	University Med. Ctr. Mgmt. Co.	71,871	569,285	0.40%
5	United States Postal Service	71,848	579,262	0.40%
6	VA Dept. of Veterans Affairs	69,916	562,764	0.39%
7	Xavier University	67,891	670,030	0.47%
8	Touro Infirmary	64,417	548,005	0.38%
9	Willowbrooks Apt.	62,095	536,581	0.37%
10	Levee Commission	58,085	457,242	0.32%
Total		914,887	\$ 7,684,646	5.35%
Total Annual Billing for SWBNO Customers			\$ 143,686,137	100.0%

Source: Raftelis Financial Consultants

Population Trend and Socioeconomic Indicators

New Orleans, the largest city in Louisiana and the second-largest city on the US Gulf Coast (following Houston), is a crossroads for transportation and commerce near the mouth of the Mississippi River. Following a major population drop driven by 2005’s Hurricane Katrina, the City’s population recovered by 76% from 2006 to 2017 – albeit still below 2005’s level by 10% – but declined by 0.8% from 2017 to 2019 (390,144). In its 2020 annual comprehensive financial report, Management forecasts that New Orleans’s population may shrink by another 13% by 2038. The City’s major sectors include tourism and hospitality, energy, and shipping. Per capita income in 2019 of \$32,034 was 118.7% of the state’s and 95.4% of the US level.

Figure 4
% Change in Population

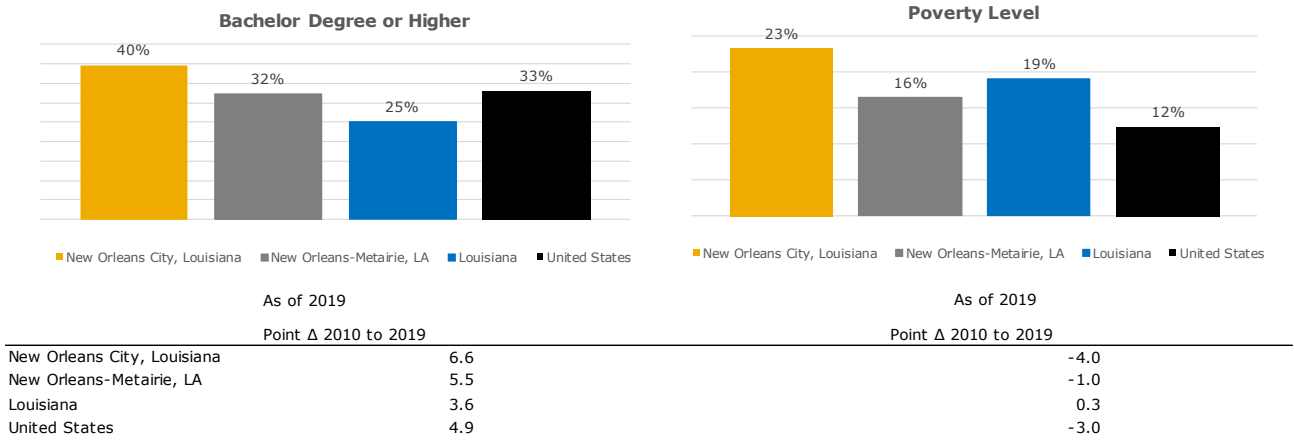


	2010	2019, Δ 2010 to 2019	10 Year CAGR (2019)
New Orleans City, Louisiana	347,858	390,144	12.2%
New Orleans-Metairie, LA	1,173,327	1,270,530	8.3%
Louisiana	4,544,228	4,648,794	2.3%
United States	309,349,689	328,239,523	6.1%

Source: U.S Census

New Orleans has the advantage of superior educational attainment versus the state and US, though poverty is one of its challenges. In 2019, 23% of the City's population was under the federal poverty threshold, compared to 19% for Louisiana and 12.3% for the US. The CY 2021 adopted operating and capital budgets acknowledge disparity in the distribution of incomes of New Orleans residents.

Figure 5



Source: U.S Census

Bachelor degree or higher defined as "% of population over 25 with Bachelor's degree or higher".

Poverty level defined as "portion of population living below the poverty line".

Employment/Unemployment

From an MSA perspective, New Orleans-Metairie, LA's employment base is diverse. No single sector exceeds 20% of jobs and only education and health services, which saw job growth of 29.8% from 2010 to 2020, exceeds 15%. Compared to the US, the MSA is slightly concentrated in education and health services, trade, leisure, and transportation utilities, and mining and logging. In the wake of the Great Recession, job growth in the MSA and particularly in the City proper outpaced the state and the US but fell behind the US in the second half of the 2010s, roughly coinciding with Louisiana's 2015-2016 recession driven by low oil prices.

Figure 6

Total Employment (Not Seasonally Adjusted) (In Thousands)								
	New Orleans City, Louisiana	% Δ	New Orleans-Metairie, LA	% Δ	Louisiana	% Δ	United States	% Δ
2009	135	7.7%	509	-1.0%	1,927	-2.1%	139,877	-3.8%
2010	149	10.8%	529	3.9%	1,928	0.0%	139,064	-0.6%
2011	153	2.4%	530	0.2%	1,926	-0.1%	139,869	0.6%
2012	157	2.7%	536	1.2%	1,949	1.2%	142,469	1.9%
2013	161	2.9%	545	1.5%	1,967	0.9%	143,929	1.0%
2014	166	3.0%	558	2.4%	2,008	2.1%	146,305	1.7%
2015	170	2.1%	566	1.5%	2,015	0.4%	148,834	1.7%
2016	170	0.0%	566	0.0%	1,995	-1.0%	151,436	1.7%
2017	170	0.1%	567	0.1%	2,000	0.3%	153,337	1.3%
2018	170	0.4%	570	0.5%	2,013	0.6%	155,761	1.6%
2019	172	1.1%	577	1.3%	2,021	0.4%	157,538	1.1%
2020	160	-7.3%	535	-7.3%	1,905	-5.7%	147,795	-6.2%
Δ 2010 to 2020		7.2%		1.3%		-1.2%		6.3%
Δ Since Trough		27.9%		5.3%		-1.1%		6.3%
August-2021	163	2.3%	547	2.3%	1,947	2.2%	153,232	3.7%
10 Year CAGR (2020)		0.7%		0.1%		-0.1%		0.6%

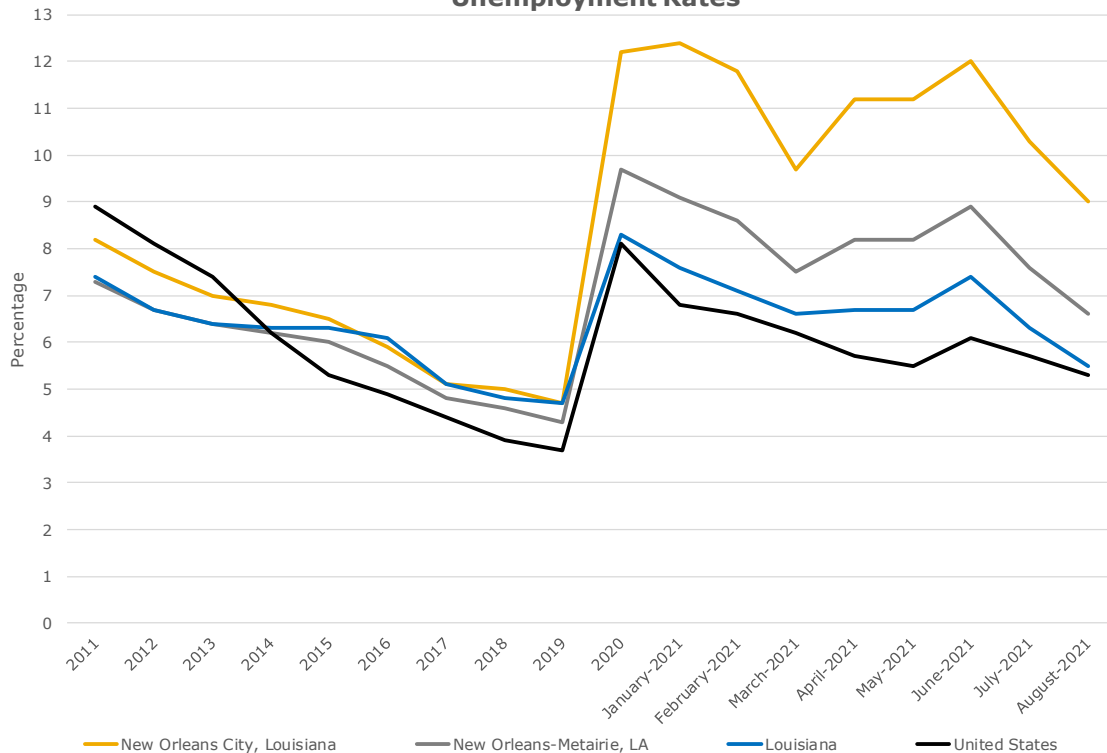
Source: U.S Bureau of Labor Statistics

Bold = trough during the Great Recession (2008-2012)



The City's unemployment rate historically exceeded that of the country and the state, besides the 2016-2019 period when it was in line with the state. During the COVID-19 pandemic, unemployment in New Orleans has persisted well above the state and US levels, ending 2020 at 12.2% versus Louisiana's 8.3% and the US's 8.1%, and only moderately declining to 9% in August 2021 versus Louisiana's 5.5% and the nation's 5.3%.

Figure 7
Unemployment Rates



	New Orleans City, Louisiana	New Orleans-Metairie, LA	Louisiana	United States
August 2021	9.0	6.6	5.5	5.3
July 2021	10.3	7.6	6.3	5.7
Great Recession Peak	8.2	7.3	7.5	9.6
Point Δ Since Great Recession Peak	0.8	-0.7	-2.0	-4.3

Source: U.S Bureau of Labor Statistics

Bill Structure/Historical and Projected Rates

Sewer rates have a fixed Service Charge (\$24.87) based on meter size and a volumetric Quantity Charge, of which the latter is applicable to 85% of metered water consumption, with the remainder allocated to outdoor uses such as watering lawns. Assuming a 5/8" meter and 5,000 gallons of monthly water usage (see Rate Affordability below), the fixed versus volumetric mix of a monthly bill is 40%/60%. Besides sewer and water rates, the City charges each SWBNO customer a \$24 monthly sanitation fee for solid waste/recycling services; this is excluded from the Sewerage Revenue Fund.

Figure 8

Adopted Monthly Sewer Rates							
	2015	2016	2017	2018	2019	2020	2021
Service Charge (fixed)(1)							
5/8 inches meter	\$15.44	\$16.98	\$18.68	\$20.55	\$22.61	\$24.87	\$24.87
3/4 inches meter	21.97	24.17	26.59	29.25	32.18	35.40	35.40
1 inch meter	31.28	34.41	37.85	41.64	45.80	50.38	50.38
1.5 inch meter	57.57	63.33	69.66	76.63	84.29	92.72	92.72
Quantity Charge							
Per 1,000gal increments	5.37	5.91	6.50	7.15	7.87	8.66	8.66

Source: SWBNO

1) There are additional levels of service charges for larger meter sizes, going up to 16 inches.

SWBNO pursued an eight-year program of 10% annual rate increases from 2013 through 2020. A comprehensive rate and affordability study is currently underway, with an expected completion timetable of mid-2022. Additionally, SWBNO will conduct outreach activities to socialize future increases to the public.

Rate Affordability and Competitiveness

A monthly sewer bill based on 5,000 gallons of water usage amounts to \$61.68. This translates on an annualized basis to 1.78% of the City’s median household income in 2019, which is nearing the upper end of affordability¹. While such a bill is lower than those of fellow Southern cities Atlanta and Birmingham, it exceeds St. Louis and Pensacola’s. SWBNO’s Water Help Program offers a credit of up to \$200 per year, covering water and sewer bills, to qualifying customers. KBRA notes that a rate-increase schedule at the magnitude of the CY 2013-2020 program would be challenging for affordability.

Figure 9

Sewer Rate Percentage Historic Increases	
Fiscal Year	% Increase
2013	10%
2014	10%
2015	10%
2016	10%
2017	10%
2018	10%
2019	10%
2020	10%
2021	0%

Source: SWBNO

Figure 10

Selected Comparable Monthly Residential Sewer Bills (Based on 5,000 gallons/month usage)	
Provider	Monthly Bill
Atlanta	\$87.68
DC Water	87.46
Birmingham	71.21
New Orleans	61.68
Cincinnati	60.87
St. Louis	58.98
Louisville	56.28
Allegheny County	48.45
Pensacola	38.10

Source: Raftelis Financial Consultants

Collections and Enforcement History

From CY 2010 through at least CY 2019, the average annual collection rate was high at 98%. When an account is delinquent for 60 or more days, enforcement initiates with a 10-day notice of termination. Other enforcement practices include late fees and payment plans. Between March 2020 to July 2021 – most of the pandemic so far – SWBNO suspended normal collection actions, including shutoffs and late fees. Besides a short period of disruption from Hurricane Ida, collection actions resumed in summer 2021 with a revised payment plan.

SWBNO experienced frequent billing inaccuracies after adopting the new, more complex Cogsdale billing system in late 2016. For example, the Board faced underbilling in CY 2017 and CY 2018; Raftelis, the financial consultant, noted this was substantially addressed by early 2019. The key issue driving inaccuracies has been that bills reflect estimated rather than actual usage. Additionally, the meter reading department was closed during the first several months of the pandemic. The Board has been tackling this key issue through a multi-pronged approach that includes:

- Adjusting the meter reading process to “look back” for two actual meters reads over the past ten months rather than use an industry average
- Growing the meter reading department’s headcount and raising salaries and performance-based bonuses
- Increasing the volume of meter reading with a goal of reading 80% of meters monthly
- Hiring a Chief Customer Service Officer to manage a new customer service department that includes billing
- Working with Jacobs Engineering on Advanced Metering Infrastructure, with a plan to release before year-end a RFP for implementation, which Management expected (as of early 2021) would require two-to-four years

The Board is already seeing a reduction in bill disputes and achieving a monthly meters-read share of 80%. Management will continue to monitor its collection rates.

RD 4: Operations and Capital

With a geographic scope of almost 86 miles, the Sewerage System is composed of 1,300 miles of gravity lines, 120 miles of force mains, and 83 pump and lift stations that provide pressure for the force mains. Expect for three large stations with staff, all the pump and lift stations are automated. The Mississippi River presents extra complexity by

¹ Based on the EPA’s 2% of MHI guideline



dividing the system into an East Bank and West Bank segments, each with one of SWBNO's two WWTPs. Chlorinated effluent flows into the Mississippi River. Another complexity is that in part because of below sea-level-elevation, the Board is more reliant on electric power than fellow U.S. water systems.

System Condition

A significant portion of the Sewerage System was constructed more than three-quarters of century ago. A focus of SBWNO's CIPs has been to renew this aging infrastructure. In its November 2020 report, Black & Veatch concluded that significant facilities improvements were essential to raise reliability and performance.

The Board has been operating under federal consent decrees regarding the Sewerage System since the Original Consent Decree with the EPA and DOJ initiated in 1998. SWBNO is in the middle of its Third Modified Consent Decree, which started in 2014 and is currently expected to finish in October 2025. This decree focuses on addressing Sanitary Sewer Overflows, specifically on the east bank, as well as how SWBNO's operations respond to overflows, decreasing the number of cross-connections, and other actions.

Water Supply and Allocation Rights

The Board's water system, which is supplied from the Mississippi River, has a combined raw water pumping capacity of 365 MGD and water treatment capacities of 210 MGD at Carrollton Water Treatment Plant (WTP) and 24 MGD at Algiers WTP. The former had extra capacities of 35% and 22% above its CY 2019 average and peak daily outputs, respectively. The latter had extra capacities of 62% and 57% over its CY 2019 average and peak daily outputs, respectively. SWBNO also has 48.5 million gallons of combined water storage capacity.

Wastewater Treatment Capacity

Aggregate treatment capacity is around 272 MGD, versus an average dry weather flow of around 142 MGD. The East Bank WWTP has flow capacities of 122 MGD and 240 MGD in dry and wet weather, respectively. Black & Veatch viewed this plant's near-term permitted capacity as sufficient. Average day effluent flow grew slightly from 96 MGD in CY 2016 to 104 MGD in CY 2018. The West Bank WWTP has flow capacities of 40 MGD and 58 MGD in dry and wet weather, respectively, versus a CY 2018 average day effluent flow of 10.05 MGD. Black & Veatch viewed this plant's capacity as sufficient, though they did not elaborate on near-term demand. For both plants, the engineer states that maximum day effluent flow reflected significant infiltration and inflow into the collection system – the in West Bank Treatment Plant's case, the engineer specifically cited storm events.

Capital Plan

The Board's adopted \$465.5 million capital budget for CY 2021 includes \$188.6 million for the Sewerage System, \$218.5 million for the water system, and \$58.4 million for the drainage system. Funding sources for CY 2021 sewer capital expenditures includes WIFIA financing, proceeds from new bonds, and FEMA reimbursements, but at the time of adoption, the Board acknowledged not all identified capital needs could be funded in that year. According to this capital budget, the CY 2021-2030 CIP totals around \$2.4 billion of projects. Within the CIP, capital expenditures categorized as sewer-only are front-loaded in CY 2021 through CY 2024, which we view as logical given that CY 2025 is the deadline for the Decree.

RD 5: Financial Profile and Debt

Revenue and Expense Management

On an audited GAAP compliant basis, operating revenues increased at a 9.0% CAGR between 2016 and 2020, versus growth in operating expenses and depreciation at a 11.4% CAGR. Frequent Sewerage System rate adjustments in the past several years have significantly increased operating revenues and allowed for maintenance of solid coverage levels for the Sewerage Service Revenue Bonds. Despite the COVID-19 pandemic, total operating revenues increased by 1.6% YoY to \$147.4 million in CY 2020.

Operation and maintenance expenses have fluctuated over the last five-year period. In CY 2020, annual operating expenses (excluding depreciation & amortization) were \$94.6 million, or a 0.6% decrease compared to CY 2019. The decrease was driven by various cost cutting measures and deferral of certain repairs and maintenance expenditure amid the pandemic. Inclusive of depreciation of \$20.4 million, the Sewerage System generated operating income of \$32.3 million, an improvement from operating income of \$23.3 million from prior year.

KBRA notes that provision for doubtful accounts experienced an increase in CY 2018 and CY 2019 as a result of billing discrepancies when the new billing system was implemented in late 2016. While the billing issue has been substantially corrected in CY 2019, Management continues to budget \$18 million as future provision for doubtful accounts during the forecasting periods out to CY 2024.

Figure 11

Sewerage and Water Board of New Orleans, LA					
Sewerage System - Statements of Revenues, Expenses, and Changes in Net Position					
FYE December 30 (in thousands)	2016	2017	2018	2019	2020
OPERATING REVENUES					
Sewerage service charges	104,795	111,064	114,614	143,686	146,262
Plumbing inspection and license fees	319	291	329	288	227
Other revenue	506	528	834	1,052	880
Total Operating Rev	105,620	111,883	115,778	145,026	147,369
YOY % Chg.		5.9%	3.5%	25.3%	1.6%
OPERATING EXPENSES					
Power and pumping	3,033	3,455	5,426	4,944	5,757
Treatment	12,740	18,238	13,665	10,048	12,162
Transmission and distribution	14,764	15,028	17,667	14,368	13,080
Customer accounts	2,071	2,226	2,608	2,703	2,319
Customer service	2,083	2,068	2,209	2,613	4,130
Administration and general	6,055	8,339	11,973	12,871	12,543
Payroll related expenses	13,999	12,643	18,604	20,123	21,708
Maintenance of general plant	2,722	2,600	8,062	8,051	6,594
Provision for doubtful accounts	1,656	5,524	13,356	18,037	14,932
Provision for claims	2,381	1,319	1,969	1,462	1,424
Total Op-Ex	61,504	71,440	95,538	95,220	94,649
YOY % Chg.		16.2%	33.7%	-0.3%	-0.6%
Operating Income net of Depreciation	44,116	40,443	20,239	49,806	52,719
YOY % Chg.		-8.3%	-50.0%	146.1%	5.8%
Depreciation	20,862	23,620	26,744	26,519	20,406
Net Operating income (loss)	23,254	16,823	(6,505)	23,287	32,313
YOY % Chg.		-27.7%	-138.7%	NA	38.8%
NON-OPERATING REVENUE/EXPENSES					
Other taxes	313	329	330	330	330
Contributions from other governments	-	-	-	9,301	-
Federal noncapital grants	-	0.05	0.05	49	27
Interest income	2,309	2,109	1,922	654	192
Bond issuance costs	-	-	-	(128)	(887)
Interest expense	-	(1,732)	(1,771)	(133)	(100)
(Provision) recovery for grants	-	(5,187)	2,188	(1,244)	(260)
Total Non-Operating Expenses	2,622	(4,480)	2,669	8,828	(698)
Income before capital contributions	25,876	12,343	(3,835)	32,115	31,616
Capital Contributions	3,106	2,412	13,901	1,175	3,969
Total Change in Net Assets	28,981	14,755	10,066	33,290	35,584
Total Net Position - Beginning	763,120	792,101	774,894	784,960	812,113
Total Net Position - Ending*	792,101	774,894	784,960	812,113	847,697

Source: Sewerage and Water Board of New Orleans Audited Financial Statements

*Including \$32 million of cumulative effect of change in accounting principle in 2017 and transfer of Debt Service Assistance Fund loan payable of \$6.1 million in 2019.

Debt Service Coverage

Despite the pandemic, net revenue available for debt services in CY 2020 continues to be strong at \$59.9 million with a DSC of 2.75x. Management projects future coverage to remain above 2.57x through CY 2031.

Figure 12

Sewerage and Water Board of New Orleans, LA					
Sewerage System - Historical Revenues, Expenses and Debt Service Coverage					
FYE December 31 (in thousands)	2016	2017	2018	2019	2020
Sewerage service charges	104,795	111,064	114,614	143,686	146,262
Plumbing inspection and license fees	319	291	329	288	227
Other revenue	506	528	834	1,052	880
<i>Subtotal</i>	<i>\$ 105,620</i>	<i>\$ 111,883</i>	<i>\$ 115,778</i>	<i>\$ 145,026</i>	<i>\$ 147,369</i>
Interest Income	2,309	2,109	1,922	654	192
Contributions from other governments	-	-	-	9,301	-
Other Non-Operating Revenue	313	329	330	379	358
Total Revenues	\$ 108,241	\$ 114,322	\$ 118,030	\$ 155,360	\$ 147,918
Total Operating Expenses excl. Depreciation	\$ 61,504	\$ 71,440	\$ 95,538	\$ 95,220	\$ 94,649
Adjustments	\$ 4,362	\$ 6,753	\$ 14,267	\$ 16,511	\$ 6,691
Adjusted Operating Expenses	\$ 57,142	\$ 64,686	\$ 81,271	\$ 78,709	\$ 87,958
NET REVENUES AVAILABLE FOR DEBT SERVICE	\$ 51,099	\$ 49,635	\$ 36,759	\$ 76,651	\$ 59,960
SENIOR DEBT SERVICE REQUIREMENTS	23,316	24,806	23,139	21,714	21,805
Senior Debt Service Coverage Ratio	2.19x	2.00x	1.59x	3.53x	2.75x

Source: City of New Orleans LA Sewerage Service Revenue Bonds Official Statement & Annual Comprehensive Financial Report

System Liquidity

As of December 31, 2020, the Sewerage System had \$45.8 million in unrestricted cash & investments. The liquidity level of 176 DCOH exceeded the Operating Reserve requirement of 90 DCOH. The Sewerage System's unrestricted cash grew further to \$50.4 million as of August 31, 2021. KBRA believes this level of liquidity provides a modest cushion for operations. Projections provided by Management through 2024 reflect continued maintenance of the minimum Operating Reserve Requirement, as well as achievement of its internal 180 DCOH target.

Figure 13

Sewerage and Water Board of New Orleans, LA					
Sewerage System - Historical Liquidity					
FYE December 31 (in thousands)	2016	2017	2018	2019	2020
Cash and investments	\$ 21,897	\$ 52,905	\$ 30,936	\$ 32,677	\$ 45,806
Operating Exp (net of D&A)	61,504	71,440	95,538	95,220	94,649
DCOH	130.0	270.3	118.2	125.3	176.6

Source: SWBNO Annual Comprehensive Financial Report | KBRA's calculation

Figure 14

Sewerage System - Statements of Net Position					
FYE December 31 (in thousands)	2016	2017	2018	2019	2020
ASSETS					
Unrestricted and undesignated					
Cash and cash equivalents & investments	21,897	52,905	30,936	32,677	45,806
Account receivable	38,045	31,402	28,039	20,097	24,345
Due from (to) other internal departments	12,285	27,545	16,501	17,551	17,475
Inventory of supplies	1,065	1,410	1,464	1,636	1,789
Prepaid expenses	232	285	117	130	245
Cash and cash equivalents designated for capital projects	39,519	-	-	-	-
Other	1,151	-	-	-	-
Total current assets	114,193	113,547	77,057	72,090	89,661
Cash and cash equivalents & investments restricted for capital projects	61,225	7,975	10,579	878	84,795
Health insurance reserve	698	726	717	604	854
Debt service reserve	30,394	29,730	29,175	27,203	28,053
PP&E	1,244,625	1,329,691	1,396,494	1,432,383	1,475,704
Less: accumulated depreciation	264,345	284,467	308,358	334,563	353,189
PP&E net	980,279	1,045,224	1,088,136	1,097,820	1,122,515
Other assets	18	18	18	18	18
Total Assets	1,186,807	1,197,220	1,205,682	1,198,613	1,325,896
Deferred Outflows	8,977	7,548	17,847	17,021	23,112
Total Assets and Deferred Outflows	1,195,784	1,204,768	1,223,530	1,215,634	1,349,008
LIABILITIES:					
Accounts payable	15,979	25,934	39,814	14,760	25,455
Disaster Reimbursement Revolving Loan	4,645	4,248	1,687	0	0
Debt Service Assistance Fund Loan payable	3,962	4,338	4,338	2,651	2,774
Other current liabilities	13,084	6,832	9,254	8,174	8,571
Total current liabilities (payable from current assets)	37,669	41,353	55,094	25,585	36,799
Accrued interest	1,603	1,881	1,743	1,604	1,822
Bonds payable	13,397	12,356	11,510	12,099	11,493
Retainers and estimates payable	675	1,793	1,372	277	7
Total current liabilities (payable from restricted assets)	15,675	16,031	14,625	13,981	13,322
Total current liabilities	53,345	57,383	69,718	39,566	50,121
Claims payable	517	4,203	4,672	4,937	5,172
Accrued vacation and sick pay		3,053	3,702	3,462	3,824
Net pension liability	26,917	27,645	41,291	35,014	32,505
Total OPEB liability	23,990	56,886	50,523	62,571	75,289
Bonds payable, net	253,079	239,189	226,225	212,875	288,943
Debt Service Assistance Fund Loan payable, net	45,037	40,892	36,553	40,039	37,265
Total noncurrent liabilities	349,540	371,868	362,967	358,898	442,998
Total liabilities	402,885	429,251	432,685	398,464	493,120
Deferred Inflows	799	623	5,885	5,057	8,191
NET POSITION:					
Net investment in capital assets	775,028	801,654	860,980	873,724	906,874
Restricted for debt service	91,619	29,730	29,175	27,203	28,053
Unrestricted (deficit)	(74,546)	(56,490)	(105,196)	(88,814)	(87,230)
Total net position	792,101	774,894	784,960	812,113	847,697
TOTAL	1,195,784	1,204,768	1,223,530	1,215,634	1,349,008

Source: Sewerage and Water Board of New Orleans Audited Financial Statements

Trends in Account Receivable

The Board suspended its water shut-off and late fee policies between March 2020 and July 2021 to help customers with financial hardship in response to the COVID-19 pandemic. As a result, the Sewerage System experienced an increase in its accounts receivable during CY 2020, to 17% of operating revenues, up from 14% in CY 2019. Nonetheless, the figure is below the historical average of 24% over the past five years.

Debt Structure

Figure 15 shows the Sewerage System's outstanding long-term obligations as of CYE 2019, CYE 2020, and August 31, 2021. The Sewerage System's debt structure is entirely fixed.

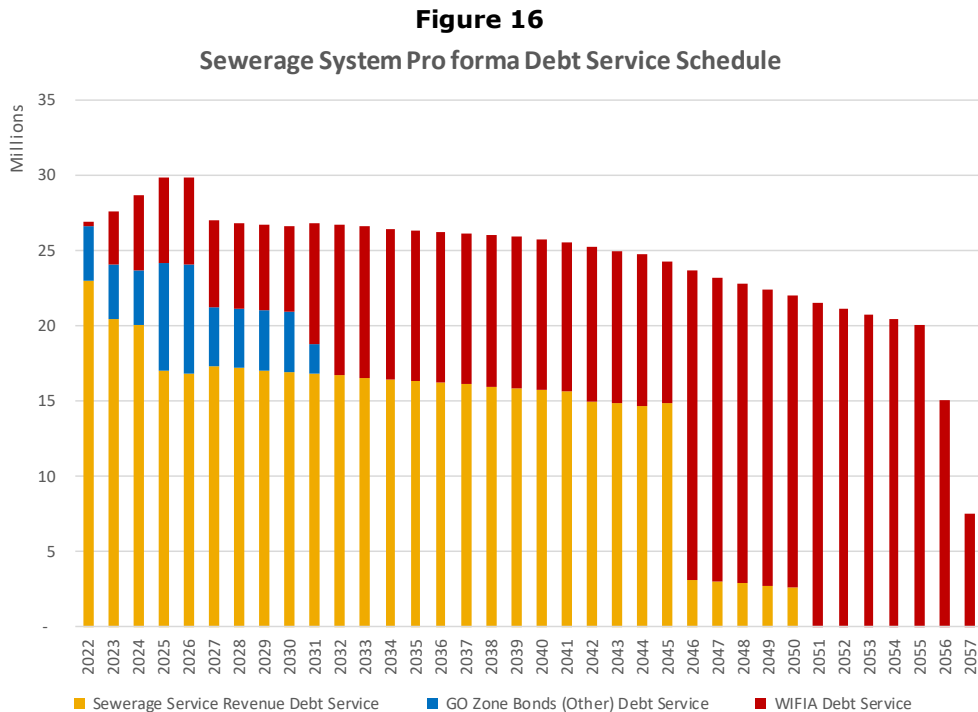
Figure 15
Sewerage and Water Board of New Orleans, LA
Sewerage System - Outstanding Debt

Type	31-Dec-19	31-Dec-20	31-Aug-21
<u>Senior</u>			
Series 2014	\$99,365,000	\$87,705,000	\$17,095,000
Series 2020A	\$0	\$10,250,000	\$10,250,000
Series 2020B	\$0	\$64,750,000	\$64,750,000
Series 2021	\$0	\$0	\$178,195,000
<u>Subordinate</u>			
Series 2011	\$6,040,000	\$5,601,000	\$5,158,000
Series 2015	\$100,000,000	\$100,000,000	\$12,710,000
Series 2019	\$127,550	\$127,550	\$10,000,000
GoZone Loan	\$37,271,042	\$37,271,042	\$37,271,042
Total	242,803,592	305,704,592	335,429,042

Source: SWBNO

Pro-Forma Aggregate Debt Service Requirements

Pro-forma aggregate MADS of \$29.9 million occurs in CY 2025 before the debt service requirements decline gradually in CY 2044.



Source: SWBNO

Leverage

The Sewerage System leverage ratio is low as evidenced by the debt-to-plant ratio of 30% in CY 2020. KBRA expects the Leverage Ratio to increase moderately due to future borrowing requirements associated with the ten-Year CIP.



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