



*"RE-BUILDING THE CITY'S WATER SYSTEMS FOR THE 21<sup>ST</sup> CENTURY"*

# **Sewerage & Water Board OF NEW ORLEANS**

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New Orleans City Council  
Public Works Committee  
1300 Perdido Street  
New Orleans, LA 70112

September 22, 2021

Dear Honorable Members of the City Council:

Please allow this to serve as the Sewerage and Water Board of New Orleans' (SWBNO) annual report, as required by La. R.S. 33:4091(A). This report provides an overview of the utility's comprehensive financial status, as well as significant managerial, financial and operational initiatives for the fiscal year ending December 31, 2020. While SWBNO provides timely status and performance updates to the City Council on a quarterly basis<sup>1</sup>, this report reflects a deeper dive into the legislatively required "receipts and expenditures" of the utility. Also attached to provide additional detail is SWBNO's completed 2020 Annual Financial Report.<sup>2</sup>

## **INTRODUCTION**

SWBNO provides drinking water, wastewater and stormwater services to all 364 square miles of the City of New Orleans and provides drainage services to approximately 2,550 acres of neighboring Jefferson Parish. The city's drinking water comes from the Mississippi River and is transported via SWBNO intake stations to two water treatment plants, where it is cleaned and then pumped across the city. The utility also operates a drainage system of approximately 280 miles of open and underground canals and 24 drainage pumping stations that house 120 pumps. Both the drainage and water systems are powered by a combination of modern, 60-Hertz electricity and self-generated, 25-Hertz power that dates to the early 20th century. SWBNO currently is under a federal consent decree to overhaul New Orleans' sewerage system, which is comprised of 84 sewer lift stations and two wastewater treatment plants. This effort is scheduled to be completed in 2025.

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<sup>1</sup> 2021 Q3 Report, attached as Exhibit 1.

<sup>2</sup> 2020 Annual Financial Report, attached as Exhibit 2.

The water and sewer systems, and overall administration of SWBNO, are funded through service rates, which are approved by the New Orleans City Council. Maintenance, operations and improvements to the drainage system are financed through three ad valorem taxes set at rates of 3 mills, 6 mills and 9 mills, which expire in 2046, 2027, and 2032, respectively. SWBNO employs approximately 1,256 people and manages a \$248-million pension trust fund.

## **ECONOMIC GROWTH AND AFFORDABILITY**

SWBNO's rate and millage-based revenue is affected by significant fluctuations in economic growth. Fiscal year 2020 saw declines in population, visitors, and employment across the city due to continued COVID-19 impacts. While overall revenue increased slightly compared to 2019, this trend limited the otherwise positive impacts of an agency emerging from crisis into a period of stability.

The latest available mid-year estimates showed that the city experienced a slight decrease in population in 2019<sup>3</sup>; projections developed for our ongoing consent decree program indicate that citywide population could decrease an additional 13% by 2038 based on recent property-level occupancy trends analysis from 2010 to the fall of 2018, as well as analysis of planned residential projects and major institutional expansions throughout the city. Generally, such declines have a negative impact on revenue generation based on reduced water and wastewater use.

Despite tourism taking a major hit due to the COVID-19 pandemic, the industry is still projected to remain one of the top revenue generators in the city. Leisure travel has been the fastest to recover and, according to HVS, the only global consulting firm focused exclusively on the hospitality industry, "New Orleans benefits from its accessibility as a drive-to destination" and has not seen the same decline in tourism experienced by flight-based destinations. With vaccine and mask mandates now in effect, New Orleans is projected to see an incline in visitors through 2021. Nevertheless, the reduced number of visitors to the city in 2020 affected water and wastewater usage and associated revenue generation, and significantly decreased funding expected to be generated via the Fair Share deal (discussed in further detail, below).

Perhaps most significant is COVID's impact on unemployment and the resulting affordability crisis many residents faced in 2020. The New Orleans area unemployment rate last year was 8.7%, higher than both the state and national averages.<sup>4</sup> Like most water utilities around the country, SWBNO suspended its water shut-off policy in March 2020 for non-payment of bills to allow customers guaranteed access to water during the public health pandemic. The policy was reinstated in August 2021, after 16 months. During that time, many customers chose to use limited income – the result of COVID-related unemployment, among other factors – to prioritize rent/mortgage payments over utility payments. Consequently, SWBNO's collections generally declined over those months.

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<sup>3</sup> U.S. Department of Labor, Bureau of Labor Statistics

<sup>4</sup> *Id.*

## MANAGEMENT INITIATIVES

Despite the dire economic outlook, SWBNO leadership and staff prioritized several financial and operational initiatives that kept the agency moving in a positive direction.

Throughout 2020, SWBNO leadership sought to secure creative financing solutions for New Orleans' long-existing infrastructure challenges. One of those, spearheaded by Mayor Cantrell, was a landmark agreement known as the "Fair Share" deal that was struck among SWBNO, the City of New Orleans, the State of Louisiana, and the hospitality industry in 2019 to provide both one-time and recurring funds to SWBNO to improve its infrastructure. This package included \$50 million in one-time funding that helped secure a healthy financial position for the utility in 2019, as well as up to \$20 million in recurring funds to support identified drainage and infrastructure projects aimed at improving customers' quality of life. Due to the global pandemic impact to the hospitality industry the actual funds received were lower in 2020 at \$6.6 million but are expected to recover back to the pre-pandemic estimates as the recovery progresses.

SWBNO also successfully pursued a major federal water infrastructure loan to fund the full rehabilitation of New Orleans' sewer system. Under the Water Infrastructure Financing and Innovation Act (WIFIA) program, the U.S. Environmental Protection Agency (EPA) chose SWBNO in 2019 to apply for a low-interest, long-term loan planned to yield up to \$275 million to help the utility make its 2025 federal consent decree deadline to completely restore the sewer system. SWBNO negotiated the loan over many months, in conjunction with the issuance of additional sewer bonds as matching funds; the loan is expected to close in early 4<sup>th</sup> quarter 2021. The funds will be used to fund Sewer System Rehabilitation projects throughout the city over the next five years.

In addition to these financial efforts, SWBNO also sought to overcome critical challenges related to self-generated power systems. Most crippling was the inability to use two major power generating turbines ("T4" and "T5") during parts of 2020, which further highlighted the need to pursue alternative long-term power solutions. While rehabilitating the turbines, which came back online in spring 2021, SWBNO also aggressively pursued a plan for a new West Power Complex, made possible by a partnership with the City of New Orleans and Entergy New Orleans. The Complex will house a dedicated substation, frequency changers, and modernized backup power generation sources, which will result in significantly increased power reliability and resiliency across the city. The West Power Complex is planned to be completed in the third quarter of 2023.

In an ongoing effort to collaborate with our valued customers, SWBNO's Executive Director formed the agency's first-ever Customer Advisory Committee. This body was created to develop a formal process that gives community members a voice within the utility's planning processes and decision-making structure. The Committee will help to guide SWBNO's Master Planning process and will also create a venue for staff to understand the community's needs and priorities so that the work we do reflects the values of the customers we serve. Additionally, SWBNO created and hired its first Chief of Customer Service in December 2020 to focus solely on all aspects of customer service delivery.

## **FINANCIAL PLANNING**

Fiscal year 2020 was SWBNO's final year of planned annual water and sewerage rate increases, and a comprehensive affordability and rate study currently is underway. The previous increases were approved by the New Orleans City Council on December 6, 2012, and made effective on January 1, 2013. SWBNO is an enterprise fund of the City of New Orleans and, like most enterprise funds, it is financed by user fees. The user fees cover water and sewer services only. The approved rate plan covered an eight-year period, increasing 10 percent every year until its sunset in 2020.

As stated above, SWBNO also receives revenues from the three-(3) mill, six-(6) mill and nine-(9) mill ad valorem taxes, which are restricted exclusively for the drainage system.

### ***General Operations***

The change in net position for the year ended December 31, 2020 was an increase of approximately \$216.3 million, as opposed to an approximately \$111.5 million increase for the year ended December 31, 2019. The Board's total operating revenues increased by 2.2% to approximately \$268.6 million due primarily to a rate increase effective January 1, 2020, which was offset by lower billed volumes. Total non-operating revenue decreased by 23.4% to approximately \$66.2 million due primarily to \$28 million in one-time funding from the Fair Share program in 2019.

### ***Budgetary Control***

SWBNO maintains an internal budgetary control through the preparation and monitoring of an annual operating and capital budget for the Water, Sewerage, and Drainage funds. The statement of revenues, expenses, and changes in net position, statement of net position, and statement of cash flows are prepared for each system. Also, monthly budget reports are provided to assist each department level manager in fiscal decision making.

The 2020 approved operating budget of \$320.9 million is 6% greater than the 2019 approved fiscal budget of \$301.6 million. The Board has \$462.3 million in outstanding senior lien debt: \$3.9 million in Drainage Bonds, \$268.5 million in Sewer Revenue Bonds and \$189.9 million in Water Revenue Bonds. SWBNO has been issued an "A" and an "A-" rating from Standard & Poor's Ratings Services (S&P) for the sewer system and water system, respectively, and a "BBB+" for the water system and sewer system from the Fitch Ratings. In addition, the S&P and Fitch Ratings for Special Tax Bonds is "AA-" and "A", respectively.

## **CAPITAL IMPROVEMENT PROGRAM**

SWBNO has a 10-year capital improvement program that factors in resources and expenses for the repair, rehabilitation, and replacement of water, sewer, and drainage capital assets. This includes capital improvements to infrastructure for the completion of projects from Hurricane Katrina repairs, for ongoing rehabilitation, to handle anticipated growth, to maintain compliance with regulatory requirements, technology changes, and to bring the system into the 21<sup>st</sup> century.

At the close of 2020, there were approximately 33 active contracts for capital projects.<sup>5</sup> There are also several active emergency contracts, which are those not anticipated in the capital improvement program, including:

**2020 – Turbine 4 Outage:** On October 24, 2020, Turbine 4, which had been serving as the primary turbine for daily operations and rain events, tripped offline unexpectedly. The General Superintendent declared an extreme emergency to determine and address the cause of the event, prevent further damage, make all necessary repairs, and where necessary, repair or improve other system components to fortify the remaining 25-hz power generation and distribution facilities. Repair contracts for the Turbine were subsequently issued in early 2021.

**2019 – Turbine 5 Explosion:** On December 14, 2019 an explosion occurred in Turbine - Generator 5 at the Sewerage and Water Board’s Carrollton Water Plant. The explosion injured nearby personnel and caused significant damage to and around the turbine. The General Superintendent immediately declared an extreme emergency to provide for the safety of personnel, establish containment and stabilization of the power house, begin an assessment of the damage, investigate the cause of the incident, and address the risk to the water, sewer, and drainage systems powered by the Turbine-Generator. The emergency declaration will also extend to the potential replacement of the 20 Megawatts of generating capacity lost due to the explosion. Several contracts were issued in response to this emergency, which were on-going at the end of 2020.

As of December 31, 2020, the Board's budget for its ten-year capital improvements program totaled approximately \$2.0 billion and included \$466 million in capital expenditures for the year ending December 31, 2021 for the following activities:

- Continue Joint Infrastructure Recovery Road program in conjunction with City of New Orleans Department of Public Works;
- Comply with regulatory requirements under the Sewer Consent Decree;
- Rehabilitate and upgrade facilities at the Carrollton Water Plant;
- Participate in drainage system improvements in coordination with SELA Program;
- Continue Automated Meter Infrastructure project

## **WATER SYSTEM MAJOR INITIATIVES**

Below is a list of the major water system initiatives completed in 2020 and those that are still in progress:

### **Carrollton Water Purification Plant**

- Construction and design of valves, actuators and controls at Sycamore Filter Gallery in progress.
- Design of new sludge line to the Mississippi River in progress.
- Design for the demolition to basins C7 and C8 completed. Construction of site work scheduled to be completed in October 2021.

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<sup>5</sup> See SWBNO’s Annual Financial Report for a full listing of capital improvement projects.

- Design of improvement to Claiborne Ave Pumping, Panola and High Lift Stations completed. Construction of Claiborne Pumping Station in progress and scheduled for completion in Q3 2022.
- Design of the repairs to the fender system at New River and Oak St Raw Water Intake Structures in progress.

### **Algiers Water Purification Plant**

- Design of water storage tank mixing in progress.
- Improvements to the Algiers Water Plant in progress, including replacement of Clarifier 1, improvements to Clarifiers 2,3, and 4, a new fluorousilicic acid storage and feed system, and SCADA system is under construction.
- Staff design of filter media replacement and repair to valves and actuators in progress.

### **Water Distribution System**

- Ongoing coordination with the Department of Public Works to rehabilitate water mains in association with the Joint Infrastructure Recovery Roads Program (JIRR) and other roadway rehabilitation projects.
- Ongoing management of twenty-two engineering consultants designing water main replacement projects for approximately sixty-two neighborhoods.

### **Water Pumping and Power**

- Replacement of various 25Hz power distribution cables in progress.
- Refurbishment of boilers 1 thru 6 in progress.
- Replacement of 25Hz pumps, motors, electrical components, piping, flow meters and valves associated with Oak St Raw Water Intake Station completed.
- Conversion of one distribution pump from steam turbine to 60 Hz motor completed.
- Design of new VFDs and motors for distribution pumps in progress.

## **SEWER SYSTEM INITIATIVES**

Below is a list of the major sewer system initiatives completed in 2020 and those that are still in progress:

### **Sewerage Pumping Stations**

- Design of structural improvements to SPS A and Station D completed. Construction at Station D completed and construction ongoing at SPS A.

## **Sewer Collection System**

- Ongoing coordination with the Department of Public Works to rehabilitate sewer mains in association with the Joint Infrastructure Recovery Roads Program (JIRR) and other roadway rehabilitation projects.
- Construction within the South Shore Basin is currently 85% completed.
- Construction within the Mid-City Basin is currently 25% completed.
- Construction within the Carrollton Basin is currently 10% completed.

## **Wastewater Treatment Plants**

- Construction for the installation of the sludge dryer in progress.
- Preliminary design of a new 66" effluent discharge line to the Mississippi River in progress.
- EBWWTP - Electrical Improvements Phase 2 completed.
- EBWWTP - Rehabilitation of Clarifier #8 completed.
- EBWWTP - Design of Additional Effluent Pump (#6) completed.
- EBWWTP - Installation of the 'air lance' heater blower system for FBI scrubber system completed.
- EBWWTP - Construction of the Sludge Dryer Project in progress.
- WBWWTP - Replacement of the drive unit on the final clarifier #1 in progress.
- EBWWTP - Repair of Clarifier #5's underground RAS pipeline in progress.

## **DRAINAGE SYSTEM INITIATIVES**

Below is a list of the major drainage system initiatives completed in 2020 and those that are still in progress:

### **Drainage Pumping Stations**

- Rehabilitation of the Broad St Underpass Station in progress.
- Construction of anti-siphon mechanisms at Drainage Pumping Station 4 in progress.
- Additional SCADA instrumentation purchase and install in progress.
- Design of Discharge Pump Station # 13 in Algiers in progress.

### **Canals**

- Construction of Florida Ave Canal Phases II/III from Peoples Ave is 100% complete.
- Construction of Florida Ave Canal Phase IV is in progress.
- Construction of General DeGaulle Canal Improvements from Shirley Dr to Holiday Dr is in progress.
- Design of Donner Canal from Algiers Outfall Canal to Pump Station #13 is in progress.
- Design of General DeGaulle Canal from Behrman Place to Algiers Outfall Canal is in progress.

## LOOKING AHEAD

SWBNO aggressively has pursued several priority projects in 2021, some of which are highlighted below:

**West Power Complex:** As referenced above, development of the West Power Complex is the agency's top operational priority for the near future. The full plan is detailed in the \$300 million Power Master Plan, which was formally adopted by the Board of Directors in 2020. In the past 12 months, SWBNO has nearly completed site preparation for the Complex, procured the first of three frequency changers to make Entergy's 60-Hz power usable for drainage and water pumps, and completed negotiations with Entergy and the City to reach a fully-funded \$74M commitment to construct the substation and all required equipment by the third quarter of 2023. This investment will result in a transformative change for the better for both the utility and the city.

**Advanced Metering Infrastructure:** SWBNO has selected a Project Manager for a four-year, two-phase effort to bring Automated Metering Infrastructure (AMI) to its customers, nearly completed the phase-one meter survey, and developed an RFP for system implementation. AMI will benefit both SWBNO and its ratepayers in numerous ways, including generating real-time, accurate billing information, reducing estimated readings and re-billing costs, reducing billing errors and disputes, preventing tampering and theft, and promoting energy conservation and customer savings with time-of-use consumption. The project will be funded in part with Fair Share dollars.

**Sewer and Water Bond Refunding Sales:** As part of its financial plan to reduce borrowing costs and generate budget savings, SWBNO issued \$372 million in refunding bonds for the majority of the 2014 and 2015 Sewer and Water General Revenue Bonds in March 2021. The proceeds were used to refund outstanding principle and created net present value savings of \$36 million over the expected term of the 2021 refunding bonds.

**Strategic Plan:** Finally, SWBNO leadership has prioritized development of a 5-year strategic plan to continue to guide the agency toward stability and success. The plan is well underway, led by project manager Raftelis and with substantive input from the Board of Directors, SWBNO staff, and external stakeholders. A final plan will be adopted and published by year-end 2021.

## CONCLUSION

In conclusion, SWBNO remains committed to providing excellent water, wastewater, and drainage services for the people of New Orleans. There is much work yet to be done, but SWBNO's leadership and staff look forward to engaging customers, employees, partners and stakeholders in the rewarding work of preparing the utility for future success. SWBNO hereby submits its Annual Report for the fiscal year ended December 31, 2020.

Respectfully submitted,



Ghassan Korban, Executive Director