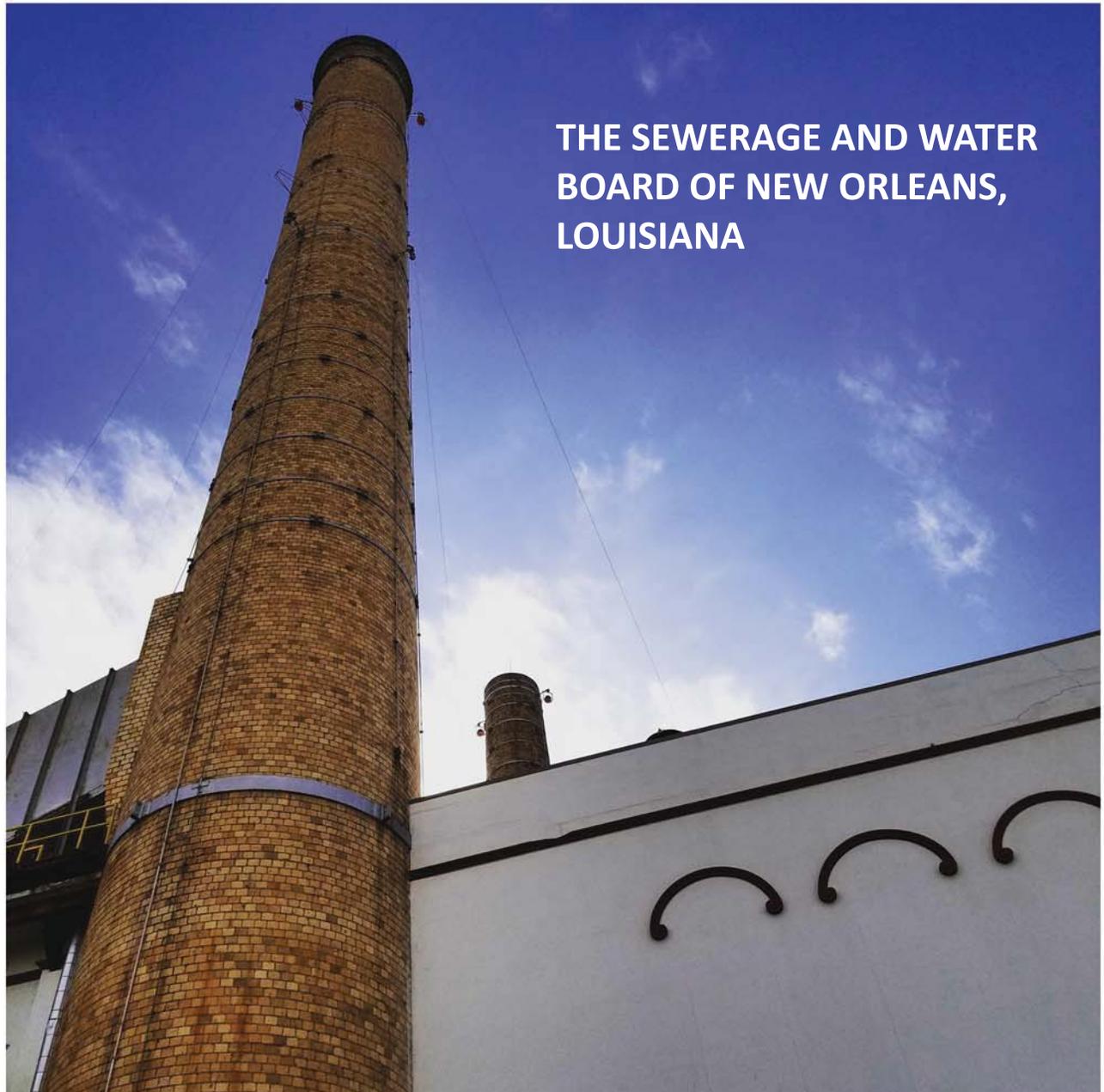




# Comprehensive Annual Financial Report

for the years ended December 31, 2018 and 2017



COVER: A ground-level view of the powerhouse smokestack on SWBNO's Carrollton Water Plant campus. The plant is central control for much of the utility's operations. Beyond treating drinking water for New Orleans customers on the East Bank of the Mississippi River, it also is home to some of the oldest functional steam turbine generators in the country. Steam power is used to operate several water distribution pumps and many massive drainage pumps stationed throughout the city.

**SEWERAGE AND WATER BOARD  
OF NEW ORLEANS**

**Comprehensive Annual Financial Report  
For The Year Ended  
December 31, 2018 and 2017**

**Prepared by:  
Yvette Downs  
Chief Finance Officer  
And  
Rosita P. Thomas  
Finance Administrator**



# Sewerage & Water Board of New Orleans

## Our Mission & Vision

### Our Mission

We serve the people of New Orleans and improve their quality of life by providing safe drinking water; removing waste water for safe return to the environment; and draining storm water to protect our community. Our team of experts do this reliably, continuously, and at a reasonable cost.

### Our Vision

Our vision is to earn and hold the trust and confidence of our customers and community for reliable and sustainable water services; and to be a model utility in the water industry.

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

Comprehensive Annual Financial Report  
Years ended December 31, 2018 and 2017

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Environmental Technician Corwin Washington greets a visitor during a neighborhood summit at the University of New Orleans.



*“RE-BUILDING THE CITY’S WATER SYSTEMS FOR THE 21<sup>ST</sup> CENTURY”*

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

625 ST. JOSEPH STREET  
NEW ORLEANS, LA 70165 • 504-529-2837 OR 52-WATER  
[www.swbno.org](http://www.swbno.org)

June 30, 2019

TO: The Honorable LaToya Cantrell, President, and  
Members of the Sewerage and Water Board of New Orleans  
625 St. Joseph Street  
New Orleans, LA 70165

We are pleased to present our latest Comprehensive Annual Financial Report (CAFR) for the fiscal year ending Dec. 31, 2018. This yearly exercise provides our Board of Directors, investors, customers and the public at large with the latest, most complete financial portrait of the Sewerage and Water Board of New Orleans (SWBNO).

As management of this utility, we take full responsibility for the accuracy of the data and completeness and fairness of the presentation, including all disclosures. It is our belief that the data, as presented, is accurate in all material respects. This report is designed to present fairly SWBNO’s financial position and results of operation for the SWBNO Enterprise and Pension Trust Funds. Included are all disclosures necessary for readers to gain an understanding of SWBNO’s financial activities.

The Board retained Postlethwaite & Netterville (P&N), a Professional Accounting Corporation, to serve as its independent auditor. P&N has issued an unmodified opinion on the Board’s financial statements for the years 2018 and 2017. The independent auditors’ report is located at the front of the Financial Section of this report.

## **THE COMPREHENSIVE ANNUAL FINANCIAL REPORT**

The CAFR is organized into four sections:

**Introductory Section:** This section includes this letter of transmittal, as well as various governance, leadership and organizational charts. This transmittal letter is designed to complement the MD&A (see Financial Section) and should be read in conjunction with it.

**Financial Section:** This section includes the Independent Auditor’s Report, Management’s Discussion and Analysis (MD&A), all financial statements and notes and required supplementary information (RSI). The MD&A is a GAAP requirement that provides an overview and analysis of the basic financial statements.

**Statistical Section:** This section presents graphs and details that demonstrate financial trends and revenue and debt capacity as context for understanding SWBNO’s overall financial health and operating capacity.

**Supplemental Section:** This section includes additional historical schedules.

The following financial statements were prepared in accordance with U.S. Generally Accepted Accounting Principles (GAAP) and audited by a firm of independent certified public accountants retained by the Board. This utility meets the criteria for classification as an “other stand-alone government” as described in Governmental Accounting Standards Board (GASB) Statement No. 61.

Pursuant to LA Rev Stat § 24:513(A), SWBNO is required to have its financial position examined and audited each year by licensed certified public accountants.

SWBNO’s management is responsible for the reliability of the information contained in this report, based upon a comprehensive framework of internal control that is established for this purpose. The internal control framework is designed to give reasonable assurance that cost on internal controls should not exceed the benefits derived from the controls and that the financial statements are free from material misstatements. The internal control over financial reporting is a process designed by, or under the supervision of, SWBNO’s executive director and the chief financial officer and the finance administrator, and effected by the Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purpose in accordance with generally accepted accounting principles.

## **PROFILE OF SEWERAGE AND WATER BOARD OF NEW ORLEANS**

SWBNO is a public utility that owns, maintains and operates New Orleans’ vast networks of water and sewer mains, as well as the larger components of the city’s drainage system. The water and sewer systems, and overall administration of SWBNO, are funded through service rates, which are approved by the City Council of New Orleans. 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, respectively. These taxes, received in bulk once a year, are the utility’s only dedicated revenue streams for drainage.

The finances of the three systems – water, sewer, and drainage – make up the utility’s Enterprise Fund. SWBNO also provides for a Pension Trust Fund.

SWBNO was founded in 1899 by state law and merged with the New Orleans Drainage Commission in 1903 to eventually assume its present-day mission: To serve the people of New Orleans and improve their quality of life by providing safe drinking water; removing waste water for safe return to the environment; and draining storm water to protect the community. Its team of experts does this reliably, continuously, and at a reasonable cost. This utility’s vision is to earn and hold the trust and confidence of customers and community for reliable and sustainable water services, and to be a model utility in the water industry.

Today, SWBNO serves 364 square miles of the City of New Orleans, plus providing drainage services to approximately 2,550 acres of neighboring Jefferson Parish. Its drinking water comes from the Mississippi River. It operates a drainage system of approximately 280 miles of open and underground canals and 24 pumping stations that house 120 drainage pumps. Both systems are powered by a combination of modern, 60-Hertz electricity and self-generated, 25-Hertz power that dates back to the early 20<sup>th</sup> century. The Board meets the criteria for classification as an “other stand-alone government” as described in Governmental Accounting Standards Board Statement No. 61. The reporting entity includes the Enterprise Fund and the Pension Trust Fund. The Enterprise Fund is composed of three (3) independent systems: Water, Sewerage and Drainage.

SWBNO is under federal consent decree to overhaul New Orleans sewerage system. This effort is scheduled to be completed in 2025. Sewer operations are managed by an independent contractor.

This utility operates independently of city government under the oversight of its 11-member Board of Directors. Effective Jan. 1, 2019 under state law, this governing body consists of:

- The mayor of New Orleans, serving as president;
- A member of the City Council's Public Works, Sanitation and Environmental Committee or his/her designee;
- Two members of the city's debt manager, the Board of Liquidation, City Debt;
- And seven citizen members appointed by the mayor with consent of the City Council.

Citizen members must represent each of New Orleans' five City Council districts; two must be considered consumer advocates; and one must be a retired civil engineer. The Board of Directors is responsible for, amongst other things, for passing resolutions adopting the budget, appointing committees and hiring the Board's Executive Director and General Superintendent. The Board's Executive Director is responsible for carrying out the policies and resolutions of the governing board and overseeing the day-to-day operations of the Board.

SWBNO and its more than 1,350 employees stand at a pivotal moment in the utility's history. Its aging infrastructure presents daily challenges, from water main breaks to surprise power outages. In 2018, this utility made important improvements, especially to its drainage and power systems, after a major flood event in August 2017 exposed a host of deficiencies.

Under new leadership, SWBNO is making a concerted effort to end its reliance on antiquated steam power and evolve into a model, modern utility. Green infrastructure to complement traditional storm water management is an emerging priority for this utility and the City of New Orleans as it grapples with subsidence and rising sea levels.

## **ECONOMIC OUTLOOK**

One of the last major ports before the Mississippi River empties into the Gulf of Mexico, New Orleans is a central hub for commerce and an economic engine for the broader Gulf Coast region. It is also a large nexus for rail and truck routes. The city has witnessed a steady population increase in the last seven years, according to the U.S. Census Bureau, although that trend may be ending. Mid-2018 estimates show the population declined from 391,538 in 2017 to 391,006 – a 0.1 percent decrease. However, projections developed for our ongoing consent decree program indicate that citywide population could increase an additional 13% by 2038 base 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.

**Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2018  
2018 Population Estimates**

<input type="text" value="All Topics"/>	<b>New Orleans city, Louisiana</b>
<b>Population</b>	
<b>Population estimates, July 1, 2018, (V2018)</b>	<b>391,006</b>
Population estimates base, April 1, 2010, (V2018)	343,828
Population, percent change - April 1, 2010 (estimates base) to July 1, 2018, (V2018)	13.7%

*Source: U.S. Census Bureau, Population Division*

New Orleans continues to be a center for higher learning with more than 50,000 students enrolled in the region's 11 higher education institutions. Its economy is also strongly tied to industries such as leisure and hospitality, construction, manufacturing, trade, health services and a growing information technology sector.

New Orleans area employment (numbers in thousands)	Dec. 2018	Change from Dec. 2017 to Dec. 2018	
		Number	Percent
Total nonfarm	591.6	12.9	2.2
Mining and logging	4.4	0.1	2.3
Construction	31.4	2.2	7.5
Manufacturing	32.2	1.3	4.2
Trade, transportation, and utilities	116.1	0.7	0.6
Information	7.0	0.1	1.4
Financial activities	30.8	1.4	4.8
Professional and business services	78.0	1.1	1.4
Education and health services	103.2	2.7	2.7
Leisure and hospitality	91.0	2.4	2.7
Other services	24.7	0.5	2.1
Government	72.8	0.4	0.6

Source: U.S. BLS, Current Employment Statistics.

New Orleans metropolitan area unemployment rate (3.9%) was the same as the national rate (3.9%) at the end of 2018 according to the US Department of Labor. The unemployment rate for the New Orleans area decreased 1.3% from the 5.2% reported in Quarter 2 of 2017, with a 0.2% increase since December 2017.

***New Orleans Metropolitan Statistical Area Unemployment Rate; U.S. Department of Labor, Bureau of Labor Statistics***



***New Orleans Metropolitan Statistical Area Employment Rate; U.S. Department of Labor, Bureau of Labor Statistics***



Average hourly wages in the New Orleans area are lower than national averages.

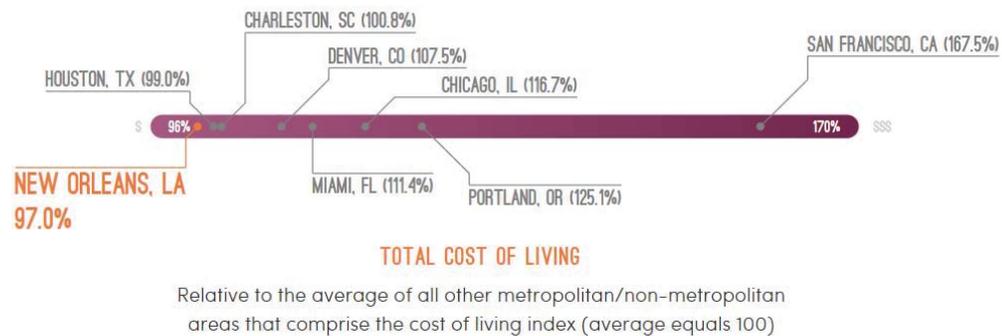
**Average hourly wages for selected occupations**

Occupation	New Orleans area	United States
Total, all occupations	\$20.82	\$24.34
Human resources managers	43.20	59.38
Accountants and auditors	34.20	37.46
Registered nurses	33.08	35.36
Chemical plant and system operators	30.18	29.63
Plumbers, pipefitters, and steamfitters	23.54	27.44
Sailors and marine oilers	21.60	22.38
Construction laborers	16.05	18.70
Customer service representatives	15.37	17.14
Pharmacy technicians	14.37	15.90
Retail salespersons	11.85	13.20
Maids and housekeeping cleaners	10.14	11.84
Cooks, fast food	9.63	10.39

Source: U.S. BLS, Occupational Employment Statistics, May 2017.

According to *Choose New Orleans*, the 2017 cost of living index for the New Orleans metropolitan area was slightly below the average of many other similar areas. Occupations that reported the highest hourly wage include Human Resource Managers, Accountants and Auditors, Registered Nurses, and Chemical Plant and System Operators. Occupations with median hourly wages include Plumbers, Pipefitters & Steamfitters, Sailors & Marine Oilers, Construction Laborers, Customer Service Technicians, and Pharmacy Technicians. Occupations with the lowest hourly wages include Retail Salespersons, Maids and Housekeeping Cleaners, and Cooks, Fast food.

## NEW ORLEANS, LA VS CITIES AROUND THE NATION



## MANAGEMENT INITIATIVES

After the emergency efforts and spending in response to the August 2017 flood event, SWBNO faced serious financial hurdles to restore stability. While the reliability of the drainage system was greatly improved, the drainage system had to borrow from other systems in the Enterprise Fund to cover those costs. A landmark deal struck in 2019 among the city, the state and the hospitality industry provided an immediate remedy for much of that uncertainty. The negotiations yielded \$50 million in one-time funding to support various operations and capital needs, and another \$20 - \$26 million in recurring tax revenue annually for the next 99 years.

With this new funding at the ready, SWBNO has made a significant shift in its asset-based strategy from a “stable” outlook to a visionary outlook. Rather than continuing to repair old and poorly maintained equipment, the utility has made an affirmative policy decision to replace outdated assets with modern infrastructure. Capital resources will be used first to move from steam-based to gas-based power generation. SWBNO also is moving forward with a plan to construct a new electrical substation at the Carrollton Water Plant, thereby enabling the utility to purchase power at a lower cost than it can be generated.

It is critical that SWBNO begin a master plan to guide its modernization efforts over the coming years. In addition to the projects detailed above, the utility must move forward with an automated meter system, extensive water line replacements, and other significant projects that will require advance financial and logistical planning. While each of these projects is independently crucial to the health and safety of New Orleans, they will be successful only with appropriate planning and prioritization. In that vein, SWBNO has developed a new organization chart and is working with other governmental agencies to implement and will be filling critical vacancies in the coming months to be able to move the utility into the future.

## **FINANCIAL PLANNING**

To help reconcile years of stagnant response to growing annual costs, the City Council approved in 2012 a water and sewer service rate plan that provides SWBNO annual rate increases of 10 percent through 2020. This effort has much improved the financial outlook of the utility, but more likely is needed. The recurring funding to begin in 2019 will help to reduce the burden to ratepayers, but discussions are underway to launch a comprehensive rate study to close the gaps. This discussion would include assessments of not only water and sewer services, but also stormwater management.

### ***General Operations***

The change in net position for the year ended December 31, 2018 was an increase of approximately \$41.0 million, as opposed to the approximately \$34.8 million for the year ended December 31, 2017. SWBNO's total operating revenues increased by 3% to approximately \$211.2 million due primarily to rate increases effective January 1, 2018, and total non-operating revenue increase by 26% to approximately \$59.1 million.

### ***Budgetary Control***

SWBNO maintains internal budgetary control through the preparation and monitoring of an annual operating and capital budget for the Water, Sewerage, and Drainage funds. Financial Statements - Statement of revenues, expenses, and changes in net assets, statement of net assets; and statements of cash flow - are prepared for each system. Also, monthly budget reports are provided to department level managers to assist them in their fiscal responsibilities. The 2019 approved budget of \$231.8 million is 6% greater than the 2018 approved fiscal budget of \$217.3 million. The Board has \$421.9 million in outstanding senior lien municipal bond debt; \$7.7 million in Drainage Bonds, \$216.9 million in Sewer Revenue Bonds and \$197.3 million in Water Revenue Bonds. SWBNO has been issued an A & A- rating from Standard & Poor (S&P) for sewerage and water respectively and an A- for water and sewer from Fitch rating agency. In addition, the S&P and Fitch ratings for special tax bonds are 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. The program provides the utility with the ability to compare the impact of future financial activity and issues to determine the most appropriate method of maintaining financial stability over the next ten years. 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 end of 2018, there were 38 active capital projects with total budgets of \$3 billion. Due to the 2017 storm event, the winter freeze of 2018 and limited access to new capital resources, the entire program of capital needs could not be funded in 2018.

## **EMERGENCY PROJECTS**

As noted earlier, the Board responded to a major storm event in 2017 and initiated a number of emergency procurement contracts that were completed in 2018 or are still in progress:

- Emergency repairs of Gas Turbine Generator No. 5 completed.
- Emergency repairs to Drainage Pump Station No. 7 (Pump C) completed.
- Installation of new pump and new motor for Drainage Pump Stations No. 2
- Installation of Permanent Generator for Underpass Pump Station No.2-Canal Blvd.
- Installation of Permanent Generator for Underpass Pump Station No. 3-Franklin Ave.

- Installation of Permanent Generator 3 for Underpass Pump Station No. 5-New Carrollton Ave.
- Installation of Permanent Generator for Underpass Pump Station No. 7-Paris Ave.
- Installation of Permanent Generator for Underpass Pump Station No. 9-Press Dr.

## WATER SYSTEM MAJOR INITIATIVES

Below is a list of the major water system initiatives completed in 2018 and those that are still in progress:

### *Carrollton Water Purification Plant*

- Construction of new filter backwash pump for Sycamore Filter Gallery in progress.
- 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 of new chemical bulk storage and feed facility in progress.
- Design of Resiliency Complex including hardening of Engineering Building, rehabilitation of Head House Facility and new Infill Building in progress.
- Design for the demolition to basins C7 and C8 in completed.
- Design of improvement to Claiborne Ave Pumping, Panola and High Lift Stations in progress.
- Conceptual study of new electrical substation on the west side of the facility in progress.
- Design of the repairs to the fender system at New River and Oak St Raw Water Intake Structures in progress.
- Construction of emergency temporary backwash pump for Sycamore Filter Gallery completed.
- Construction of one 2M gallon water tower and associated piping completed. Construction second water tower in construction.

### *Algiers Water Purification Plant*

- Design of water storage tank mixing in progress.
- Design of improvement to the Algiers Water Plant in progress including replacement of Clarifier 1, improvements to Clarifiers 2, 3, and 4, a new flourosilicic acid storage and feed system, and SCADA improvements completed. Construction started at the end of 2018.
- Staff design of filter media replacement and repair to valves and actuators in progress.

### *Water Distribution System*

- Repairs and improvements to the Michoud Water Tank in progress.
- Construction of secondary chlorination station in Venetian Isles in progress.
- Ongoing coordination with the Department of Public Works to rehabilitate water mains in association with the Joint Infrastructure Recovery Roads Program and other roadway rehabilitation.
- Ongoing management of twenty-two engineering consultants designing water main replacement projects for approximately sixty-two neighborhoods with a total value of \$185M.

### *Water Pumping and Power*

- Refurbishment of Steam Turbine Generator No. 4 completed.
- Emergency repairs of Steam Turbine Generator No. 3 completed.
- Purchase and Installation of five 2.5MW – 25Hz Electromotive Mechanical Device and associated auxiliary equipment completed.
- Installation of new 25Hz generator load bank equipment completed.
- Replacement of various 25Hz power distribution cables in progress.
- Construction of emergency fuel storage improvements in progress.

- Refurbishment and repairs of boilers 1-6 in progress.
- Design of new boiler controls, deaerators, piping and SCADA in progress.
- Structural improvements to the power plant completed.
- Replacement of 25Hz pumps, motors, electrical components, piping, flow meters and valves associated with Oak St Raw Water Intake Station in progress.

## SEWER SYSTEM INITIATIVES

Below is a list of the major sewer system initiatives completed in 2018 and those that are still in progress:

### ***Sewerage Pumping Stations***

- Design of structural improvements to SPS A and Station D in progress.
- Construction of new Sewer Pumping Station No. 8 in progress.
- Design of catch-all improvements of various sewage pumping stations in progress.

### ***East Bank Wastewater Treatment Plant***

- Construction of Phase 2 Electrical Improvements in progress.
- Construction of Bio-Reactor Train No. 4 Clean-out – Completed November 2018.
- Construction for the installation of the sludge dryer – Contract Awarded Sept 2018, but Work Order delayed.
- Construction for the rehabilitation of Clarifier #8 – Substantial Completion April 2, 2018
- Design for a new 1000 HP effluent pump in progress – 95% design completed February; 100% design due by 4/30/19.
- Preliminary design of a new 66” effluent discharge line to the Mississippi River in progress – not started.

### ***West Bank Wastewater Treatment Plant***

- Replacement of a new Vulcan bar screen – completed August 2018.

## DRAINAGE SYSTEM INITIATIVES

Below is a list of the major drainage system initiatives completed in 2018 and those that are still in progress:

### ***Drainage Pumping Stations***

- Construction of permanent emergency generators at five underpass pumping stations completed.
- Design of permanent emergency generators at three additional underpass stations completed.
- Rehabilitation of the Broad St Underpass Station in progress.
- Construction of the three new lakefront pumping stations (17<sup>th</sup>, Orleans & London) completed and managed by SLFPA-E.
- Construction of anti-siphon mechanisms at Drainage Pumping Station 1 completed.
- Rehabilitation of Pumps C, D, and E at Drainage Pumping Station 4 in progress.

## *Canals*

- Construction of Florida Ave Canal Phases II/III from Peoples Ave is 85% complete.
- Construction of Florida Ave Canal Phase IV is 36% complete.
- Construction of Jefferson Ave Canal Phase I is 100% complete.
- Construction of Louisiana Ave Canal is 100% complete.
- Design of General DeGaulle Canal Improvements from Shirley Dr to Holiday Dr is in progress.

## **OTHER FINANCIAL INFORMATION**

In December 2018, SWBNO went live with a new \$2.3 million Payroll/HR system to replace its outdated Governmental Human Resources Systems (GHRS) Payroll/HR system. The system is utilized for current employee payroll processing, retiree pension benefits, and employees receiving workers' compensation benefits.

The utility's new leadership has made great strides in improving the Customer Service Management (CSM) billing system implemented in November of 2016, including eliminating the backlog of transfer accounts, providing additional training, improved reconciliations, updated meter reading routes, and resolving customer questions and inquiries. Additionally, third parties were engaged to assist and identify areas of improvement and many of those recommendations are already underway or completed. The outdated Customer Account Management (CAM) billing system was replaced due to its inability to interface with modern system functions such as online bill services that would allow customers to pay their bills online and routinely check account activity.

In 2019, there will be an upgrade to the CSM billing system, and SWBNO will initiate planning for investment in new technologies such as Automated Metering Infrastructure, a general ledger/accounts payable replacement system, a centralized procurement System, asset management and work order systems, and other systems that may enhance the efficiency, customer access and financial reporting of the organization.

Based on the dedication of its employees, SWBNO has received the Government Finance Officers Association of the United States and Canada (GFOA) Certificate of Achievement for Excellence in Financial Reporting for 35 (thirty-five) years for past submissions of its Comprehensive Annual Financial Report (CAFR). The Certificate of Achievement is a prestigious national award-recognizing conformance with the highest standards for preparation of state and local government financial reports. In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized CAFR whose contents conform to program standards. Such CAFR must satisfy both generally accepted accounting principles and applicable legal requirements. We believe that the current report conforms to the Certificate of Achievement program requirements and we will submit this CAFR to the GFOA.

## **ACKNOWLEDGEMENTS**

The preparation of this report could not have been accomplished without the efficient and dedicated services of the entire staff of SWBNO; particularly the Finance Administration and Internal Audit departments.

We also extend a special acknowledgement to all members of the Board of Directors for their unfailing support, leadership and high standard of professionalism in the management of SWBNO's finances. Of course, a special thanks goes out to the President of the Board, Mayor LaToya Cantrell, the Governor, John Bel Edwards, and all of the members of our state delegation that played a vital role in obtaining the much needed funding for SWBNO as we look toward rebuilding a strong infrastructure for the citizens and visitors of New Orleans.

The following financial statements were prepared in accordance with U.S. Generally Accepted Accounting Principles (GAAP) and audited by a firm of independent certified public accountants retained by the Board. This utility meets the criteria for classification as an “other stand-alone government” as described in Governmental Accounting Standards Board (GASB) Statement No. 61.

Pursuant to LA Rev Stat § 24:513(A), SWBNO is required to have its financial position examined and audited each year by licensed certified public accountants.

SWBNO’s management is responsible for the reliability of the information contained in this report, based upon a comprehensive framework of internal control that is established for this purpose. The internal control framework is designed to give reasonable assurance that cost on internal controls should not exceed the benefits derived from the controls and that the financial statements are free from material misstatements. The internal control over financial reporting is a process designed by, or under the supervision of, SWBNO’s executive director and the chief financial officer and the finance administrator, and effected by the Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purpose in accordance with generally accepted accounting principles.

## **PROFILE OF SEWERAGE AND WATER BOARD OF NEW ORLEANS**

SWBNO is a public utility that owns, maintains and operates New Orleans’ vast networks of water and sewer mains, as well as the larger components of the city’s drainage system. The water and sewer systems, and overall administration of SWBNO, are funded through service rates, which are approved by the City Council of New Orleans. 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, respectively. These taxes, received in bulk once a year, are the utility’s only dedicated revenue streams for drainage.

The finances of the three systems – water, sewer, and drainage – make up the utility’s Enterprise Fund. SWBNO also provides for a Pension Trust Fund.

SWBNO was founded in 1899 by state law and merged with the New Orleans Drainage Commission in 1903 to eventually assume its present-day mission: To serve the people of New Orleans and improve their quality of life by providing safe drinking water; removing waste water for safe return to the environment; and draining storm water to protect the community. Its team of experts does this reliably, continuously, and at a reasonable cost. This utility’s vision is to earn and hold the trust and confidence of customers and community for reliable and sustainable water services, and to be a model utility in the water industry.

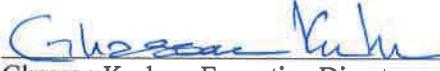
Today, SWBNO serves 364 square miles of the City of New Orleans, plus providing drainage services to approximately 2,550 acres of neighboring Jefferson Parish. Its drinking water comes from the Mississippi River. It operates a drainage system of approximately 280 miles of open and underground canals and 24 pumping stations that house 120 drainage pumps. Both systems are powered by a combination of modern, 60-Hertz electricity and self-generated, 25-Hertz power that dates back to the early 20<sup>th</sup> century. The Board meets the criteria for classification as an “other stand-alone government” as described in Governmental Accounting Standards Board Statement No. 61. The reporting entity includes the Enterprise Fund and the Pension Trust Fund. The Enterprise Fund is composed of three (3) independent systems: Water, Sewerage and Drainage.

SWBNO is under federal consent decree to overhaul New Orleans sewerage system. This effort is scheduled to be completed in 2025. Sewer operations are managed by an independent contractor.

The Comprehensive Annual Financial Report of the Sewerage and Water Board of New Orleans for the fiscal year ended December 31, 2018 is submitted herewith.

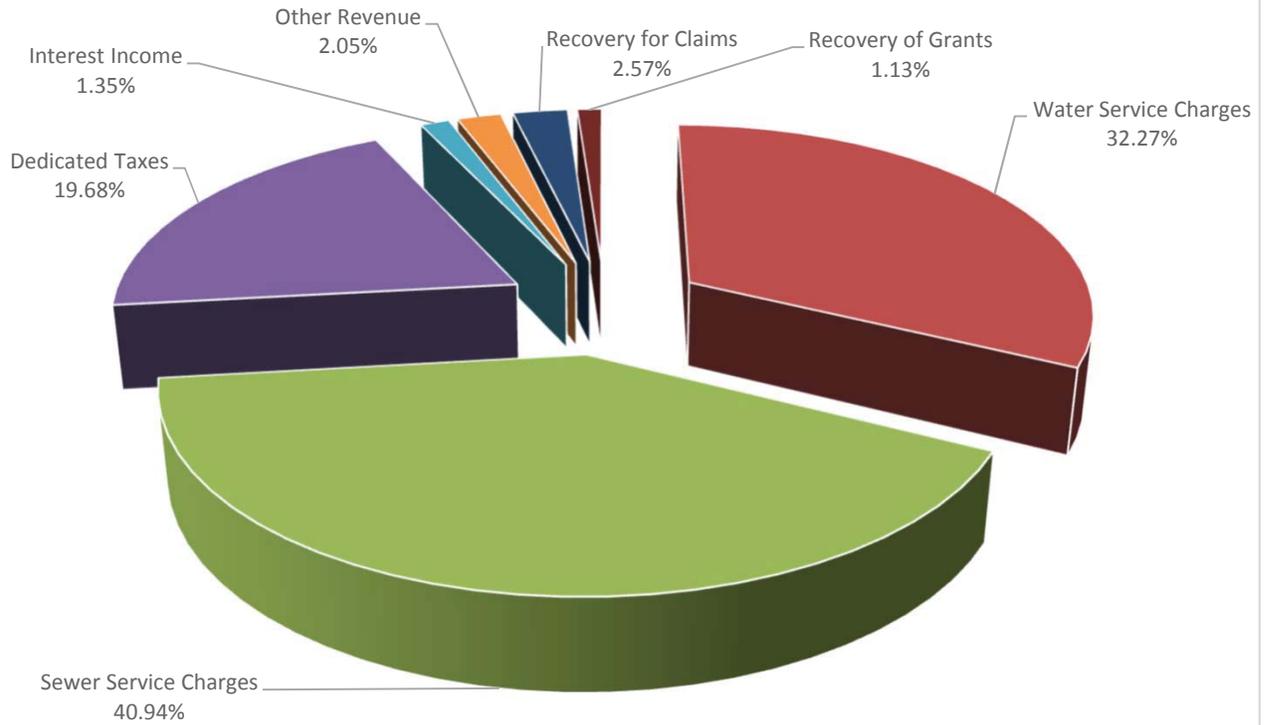
Respectfully submitted,

  
\_\_\_\_\_  
Yvette Downs, Chief Financial Officer

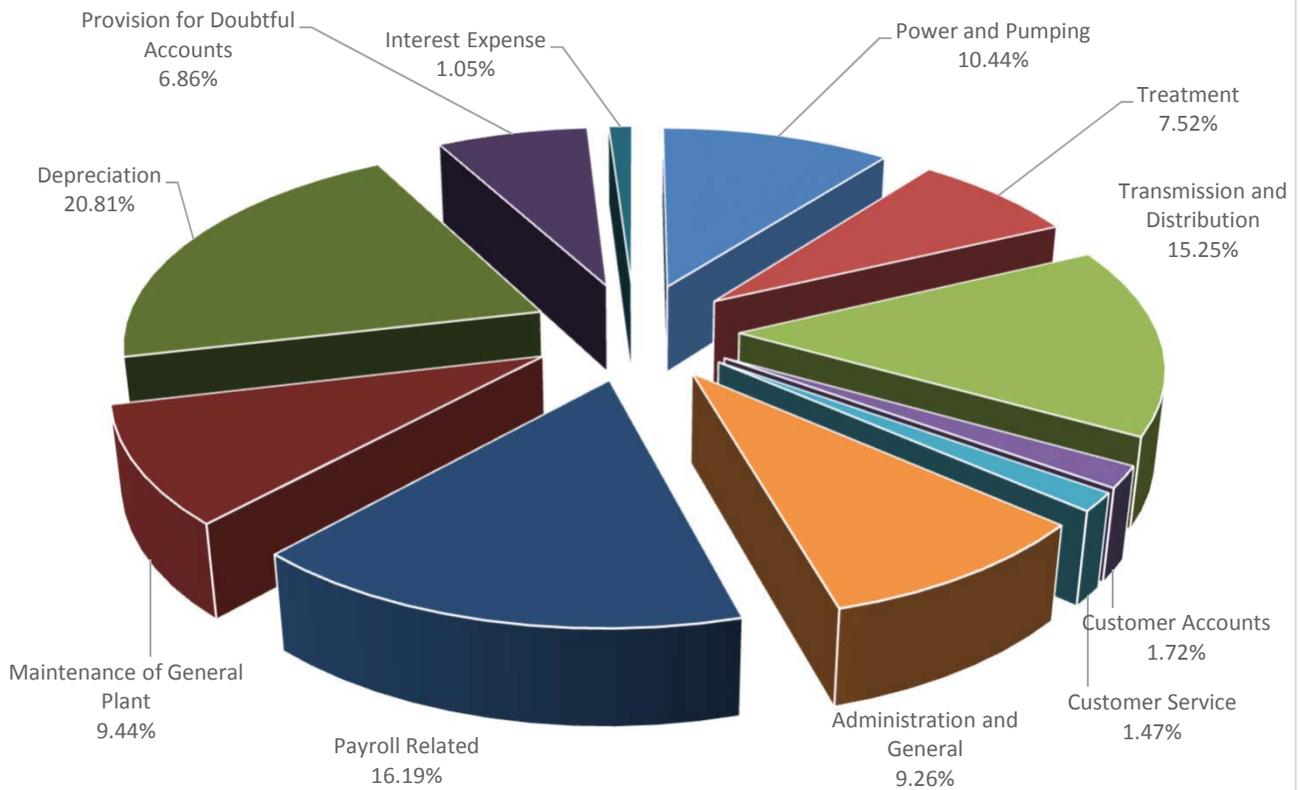
  
\_\_\_\_\_  
Ghassan Korban, Executive Director

## Sewerage and Water Board of New Orleans

### 2018 Revenue



### 2018 Expenses



**BOARD OF DIRECTORS  
SEWERAGE AND WATER BOARD OF NEW ORLEANS**

December 31, 2018

---

LATOYA CANTRELL.....Mayor

TAMIKA DUPLESSIS.....President Pro-Tem/District E

RALPH JOHNSON.....Board of Liquidation

ROBIN BARNES.....At-Large Appointment

JOSEPH PEYCHAUD.....Consumer/Community Advocate

ALEJANDRA GUZMAN..... Consumer/Community Advocate

ANDREW AMACKER..... District B

LEWIS STIRLING, III..... District A

LYNES SLOSS.....Board of Liquidation

NICOLE BARNES..... District D

**COMMITTEES OF THE  
SEWERAGE AND WATER BOARD OF NEW ORLEANS**

December 31, 2018

---

**BOARD OF DIRECTOR'S MEETING**

MAYOR LATOYA CANTRELL, President  
Dr. TAMIKA DUPLESSIS – President Pro -Tem

JOSEPH PEYCHARD  
ALEJANDRA GUZMAN  
NICOLE BARNES

ROBIN BARNES  
LEWIS STIRLING III  
LYNES SLOSS

RALPH JOHNSON  
ANDREW AMACKER  
VACANT

**BOARD OF TRUSTEES MEETING**

MAYOR LATOYA CANTRELL, Chair

ANDREW AMACKER  
DR. TAMIKA DUPLESSIS  
RALPH JOHNSON  
CHANTE' POWELL-PIERRE  
JOHN WILSON III

CHRISTOPHER BERGERON  
STACY HORN KOCH  
LEWIS STIRLING III  
MARVIN RUSSELL, JR.  
LYNES SLOSS

ROBIN BARNES  
JOSEPH PEYCHARD  
ANDREW AMACKER  
VACANT

**AUDIT COMMITTEE MEETING**

DR. TAMIKA DUPLESSIS, - Chair

ROBIN BARNES

LEWIS STIRLING  
NICOLE BARNES

LYNES SLOSS

**FINANCE AND ADMINISTRATION COMMITTEE MEETING**

LYNES SLOSS, – Chairperson

DR. TAMIKA DUPLESSIS

ALEJANDRA GUZMAN  
RALPH JOHNSON

VACANT

**GOVERNANCE COMMITTEE MEETING**

RALPH JOHNSON, – Chairperson

ROBIN BARNES – Vice Chair

ANDREW AMACKER

LYNES SLOSS

**PENSION COMMITTEE MEETING**

JOSEPH PEYCHAUD – Chairperson

LEWIS STIRLING  
CHANTE POWELL-PIERRE  
LATRESSIA MATTHEWS

CHRISTOPHER BERGERON  
VACANT

RALPH JOHNSON  
MARVIN RUSSELL, JR.  
LYNES SLOSS

**PLUMBING CONFERENCE COMMITTEE MEETING**

– Chairperson

JAY ARNOLD

MARION BRACY  
JIM FINLEY

RONNIE CROSBY

**STRATEGY COMMITTEE MEETING**

DR. TAMIKA DUPLESSIS – Chair

MARION BRACY

ROBIN BARNES  
ANDREW AMACKER

STACY HORN KOCH

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
EXECUTIVE STAFF**

December 31, 2018

**EXECUTIVE DIRECTOR**  
GHASSAN KORBAN

**GENERAL SUPERINTENDENT/CONSTRUCTION/OPERATION**  
ROBERT TURNER

**INTERIM DEPUTY DIRECTOR/SECURITY**  
JASON HIGGINBOTHAM

**DEPUTY DIRECTOR/ADMINISTRATION**  
VACANT

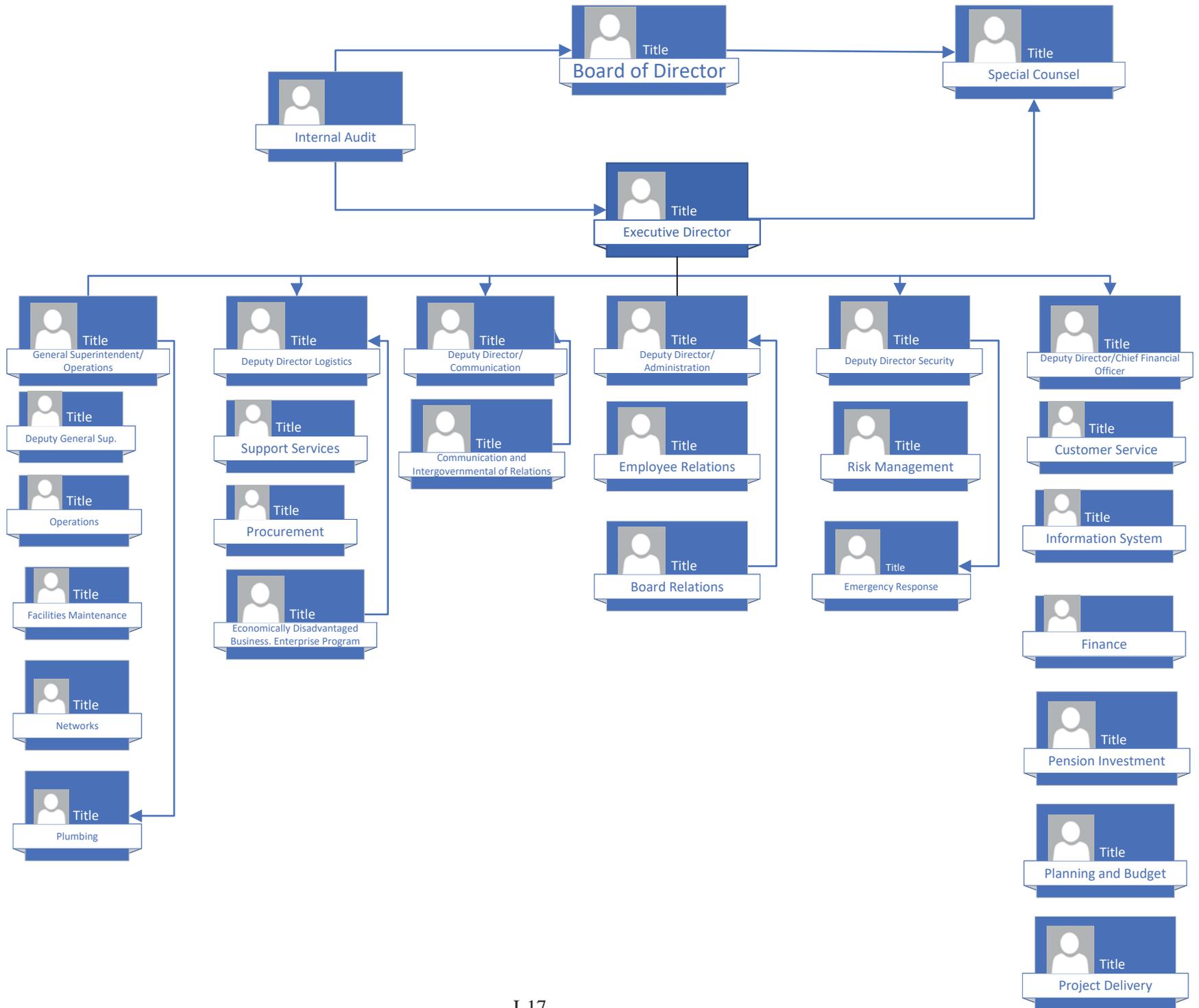
**DEPUTY DIRECTOR/COMMUNICATIONS**  
RICHARD RAINEY

**DEPUTY DIRECTOR/CHIEF FINANCIAL OFFICER**  
YVETTE DOWNS

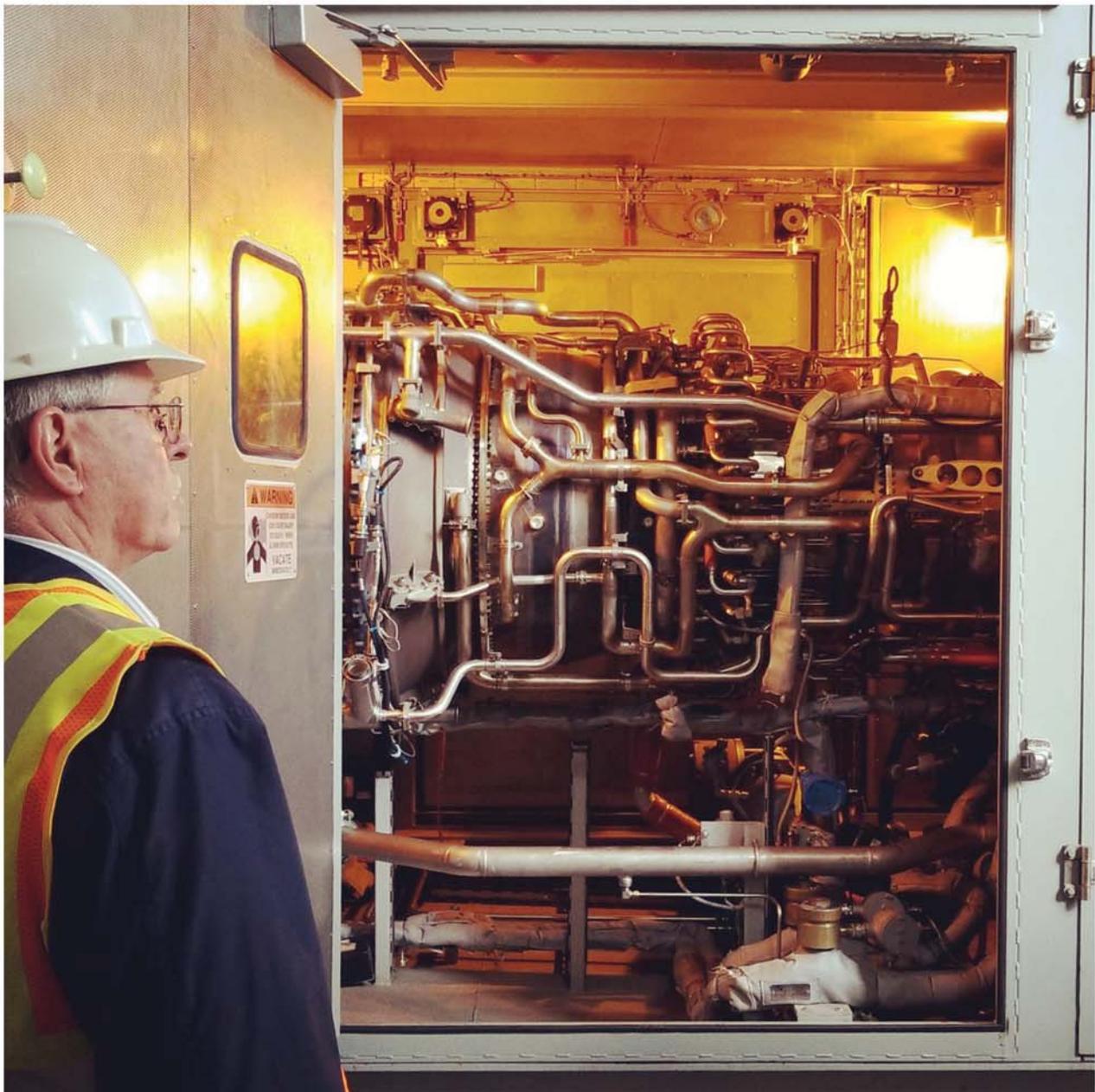
**DEPUTY DIRECTOR/LOGISTICS**  
VACANT

**SPECIAL COUNSEL**  
YOLANDA GRINSTEAD

**INTERNAL AUDITOR**  
VACANT



# FINANCIAL SECTION



SWBNO General Superintendent of Operations Robert Turner displays the inner workings of Turbine 6, a large gas-powered generator installed by the U.S. Army Corps of Engineers after Hurricane Katrina. A top priority of SWBNO is to move away from outdated steam power generation toward gas and contemporary modes of electricity.

## **INDEPENDENT AUDITORS' REPORT**

Members of the Board of Directors  
Sewerage and Water Board of New Orleans

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the Sewerage and Water Board of New Orleans (the "Board"), comprised of its business type activities and its fiduciary fund, as of and for the years ended December 31, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the Board's basic financial statements as listed in the table of contents.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibility**

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

## **Opinions**

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the fiduciary fund of the Board, as of December 31, 2018 and 2017, and the respective changes in financial position, and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

## **Emphasis of Matters**

### *Change in Accounting Principle*

As discussed in Note 17 to the financial statements, for the year ended December 31, 2018, the Board adopted new accounting guidance, GASBS No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. This new standard requires the Board to recognize and report its total other post-employment benefit liability, measured according to actuarial methods and approaches prescribed within the standard along with certain disclosures. Our opinion is not modified with respect to this matter.

### *Liquidity*

As discussed in Note 19 to the financial statements, the Board's Drainage System has incurred significant increases in expenditures which has negatively impacted the liquidity of the Drainage System. Management's evaluation of the events and conditions and management's plans to mitigate those matters are also described in Note 19. Our opinion is not modified with respect to this matter.

## **Other Matters**

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages II-4 through II-20 and the schedules presented on pages II-74 through II-76 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Information*

Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise the Board's basic financial statements. The Introductory section, Schedules 1 through 7, the Statistical Information section, and Supplementary Information section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

Schedules 1 through 7 are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedules 1 through 7 are fairly stated, in all material respects, in relation to the financial statements as a whole.

The Introductory, Statistical, and Supplemental sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

**Other Reporting Required by Government Auditing Standards**

In accordance with *Government Auditing Standards*, we have also issued our report dated June 30, 2019, on our consideration of the Board's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Board's internal control over financial reporting and compliance.

*Postlethwaite & Netterville*

New Orleans, Louisiana  
June 30, 2019

## **BASIC FINANCIAL STATEMENTS**

## SEWERAGE & WATER BOARD OF NEW ORLEANS

### MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2018 AND 2017

The following Management Discussion and Analysis provides an overview of the financial performance of the Sewerage & Water Board of New Orleans' (the Board) for the fiscal years that ended December 31, 2018 and 2017. We encourage readers to consider the information presented here in conjunction with the additional information that we have furnished in our letter of transmittal. The Board's financial statements follow this section.

#### FINANCIAL HIGHLIGHTS

Recovery from Hurricane Katrina, the resulting flooding and an ongoing consent decree program continued to have significant impacts on operations and capital activities during 2018. Repairs and replacements to the water, sewerage, and drainage systems, and rehabilitation and replacement of buildings will continue through 2025.

On August 5, 2017, New Orleans experienced a significant storm event resulting in localized flooding. In response, an investment was made in the emergency repair and upgrade to various aspects of the drainage system that continued into 2018. Substantial resources were utilized to ensure the resiliency and reliability of the drainage operations going forward. In addition, a declared winter freeze emergency in January 2018 resulted in large emergency repairs to multiple water mains around the Parish.

In May 2019, in an effort to replenish funding for the Board, Mayor LaToya Cantrell led the charge to obtain \$50 million in one-time funding to support various operations and capital needs of the Board. In addition, the Mayor was able to secure ongoing funding under House Bills 522, 617 & 43 which is anticipated to result in \$20 - \$26 million in recurring tax revenue.

#### Enterprise Fund

The major highlights in the Board's enterprise fund were as follows:

#### 2018

- The SWBNO's net position totaled \$3.5 billion in 2018, an increase of 3.7% compared to 2017.
- Revenues from Water and Sewer services increased by approximately \$3.4 million from 2017 to 2018, for a total of approximately 205.5 million for the year ended December 31, 2018.
- Total operating expenses decreased in 2018 by \$20.1 million, or 6.4% compared to 2017.
- Total assets increased \$124.7 million, or 3.7% from 2017 to 2018.
- For the year ended December 31, 2018, the Board had total outstanding senior lien municipal debt of \$421.9 million, which includes \$7.7 million in Drainage bonds, \$216.9 million in Sewer Revenue Bonds, and \$197.3 million in Water Revenue Bonds.
- The Board's additions to its major systems approximated \$253.3 million.
- The Southeast Louisiana (SELA) drainage system project, a major upgrade by the Corps of Engineers, resulted in additions of approximately \$57.1 million to work in progress during the year.
- Federal Emergency Management Agency (FEMA) Disaster Public Assistance grants revenues totaled approximately \$13.0 million and Hazard Mitigation grants totaled approximately \$31.1 million.

## SEWERAGE & WATER BOARD OF NEW ORLEANS

### MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2018 AND 2017

#### 2017

- The Board's additions to its major systems approximated \$333.9 million.
- The Southeast Louisiana (SELA) drainage system project, a major upgrade by the Corps of Engineers, resulted in additions of approximately \$98.9 million to work in progress during the year.
- Federal Emergency Management Agency (FEMA) Disaster Public Assistance grants revenues totaled approximately \$29.4 million and Hazard Mitigation grants totaled approximately \$19.5 million.
- Revenues from Water and Sewer services increased by approximately \$13.5 million to a total of approximately \$202.1 million for the year ended December 31, 2017.

#### **Pension Trust Fund**

The major highlights in the Board's fiduciary fund were as follows:

#### 2018

The net depreciation of the fair value of investments was \$8.5 million in 2018 compared to a net appreciation of \$22.5 million in 2017. The net position restricted for pension benefits decreased by \$20.0 million during 2018 to \$215.3 million at December 31, 2018.

#### 2017

The net appreciation of the fair value of investments was \$22.5 million in 2017 compared to a net appreciation of \$11.8 million in 2016. The net position restricted for pension benefits increased by \$10.9 million during 2017 to \$235.3 million at December 31, 2017.

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## **SEWERAGE & WATER BOARD OF NEW ORLEANS**

### **MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2018 AND 2017**

#### **OVERVIEW OF THE FINANCIAL STATEMENTS**

This financial report consists of five parts: management's discussion and analysis (this section), the financial statements, the notes to the financial statements, required supplementary information, and other supplementary information.

#### **Government-wide Financial Statements – Enterprise Fund**

The Board's principal activities of providing water, sewerage, and drainage services are accounted for in a single proprietary fund – the enterprise fund. Enterprise funds are used to report business activities. Since the enterprise fund is the Board's single activity, its financial statements are presented as the Board's government-wide financial statements.

The financial statements provide both long-term and short-term information about the Board's overall financial status. The financial statements also include notes that explain some of the information in the financial statements and provide more detailed data. The statements are followed by a section of required supplementary information and other supplementary information that further explain and support the information in the financial statements.

The Board's financial statements are prepared on an accrual basis in conformity with accounting principles generally accepted in the United States of America (GAAP) as applied to government units. Under this basis of accounting, revenues are recognized in the period in which they are earned, expenses are recognized in the period in which they are incurred, and depreciation of property, plant, and equipment is recognized in the Statements of Revenues, Expenses, and Changes in Net Position. All assets and liabilities associated with the operation of the Board are included in the Statements of Net Position.

The Statement of Net Position presents financial information on all of the Board's assets, liabilities, and deferred inflows/outflows of resources, with the difference reported as net position. Over time, increases and decreases in net position may serve as a useful indicator of whether the financial position of the Board is improving or deteriorating.

#### **Fund Financial Statements – Pension Trust Fund**

The Board's fiduciary fund financial statements consist of its pension trust fund. As a fiduciary fund, the pension trust fund is held for the benefit of employees and retirees of the Board. The pension trust fund is not reflected in the government-wide financials because the resources are not available to the Board for its activities. The accounting for the pension trust fund is much like that used by the enterprise fund.

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2018 AND 2017**

**FINANCIAL ANALYSIS OF THE BOARD**

**ENTERPRISE FUND**

**2018 Net Position**

The Board's total assets and deferred outflows at December 31, 2018 were approximately \$3.5 billion, a 3.7% increase from December 31, 2017 (see Table A-1).

<b>Table A-1</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Net Position</b>				
	<b>2018</b>	<b>(Restated) 2017</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Current unrestricted assets	\$ 150,478,786	\$ 194,955,962	\$ (44,477,176)	-22.8%
Restricted assets	69,484,786	116,611,194	(47,126,408)	-40.4%
Property, plant, and equipment - net	3,208,862,077	3,019,092,797	189,769,280	6.3%
Other assets	7,478,739	12,291,080	(4,812,341)	-39.2%
<b>Total assets</b>	<b>3,436,304,388</b>	<b>3,342,951,033</b>	<b>93,353,355</b>	<b>2.8%</b>
Deferred outflows of resources	48,123,085	16,734,173	31,388,912	187.6%
<b>Total deferred outflows of resources</b>	<b>48,123,085</b>	<b>16,734,173</b>	<b>31,388,912</b>	<b>187.6%</b>
<b>Total assets and deferred outflows</b>	<b>\$ 3,484,427,473</b>	<b>\$ 3,359,685,206</b>	<b>\$ 124,742,267</b>	<b>3.7%</b>
Current liabilities	\$ 167,662,980	\$ 148,037,878	\$ 19,625,102	13.3%
Long-term liabilities	1,054,308,552	1,040,787,916	13,520,636	1.3%
<b>Total liabilities</b>	<b>1,221,971,532</b>	<b>1,188,825,794</b>	<b>33,145,738</b>	<b>2.8%</b>
Deferred inflows of resources	17,653,950	1,867,968	15,785,982	845.1%
<b>Total deferred inflows of resources</b>	<b>17,653,950</b>	<b>1,867,968</b>	<b>15,785,982</b>	<b>845.1%</b>
Net position:				
Net investment in capital assets	2,543,371,049	2,405,347,069	138,023,980	5.7%
Restricted	46,042,585	46,606,340	(563,755)	-1.2%
Unrestricted	(344,611,643)	(282,961,965)	(61,649,678)	21.8%
<b>Total net position</b>	<b>2,244,801,991</b>	<b>2,168,991,444</b>	<b>75,810,547</b>	<b>3.5%</b>
<b>Total liabilities, deferred inflows, and net position</b>	<b>\$ 3,484,427,473</b>	<b>\$ 3,359,685,206</b>	<b>\$ 124,742,267</b>	<b>3.7%</b>

The net increase in total assets of \$124.7 million resulted primarily due to a net increase in property, plant, and equipment of \$189.8 million. There was a decrease in restricted assets of about \$47.1 million as funds were used for construction projects. Current unrestricted assets decreased by \$44.5 million in 2018 mainly due to a decrease in unrestricted cash and cash equivalents of \$18.4 million and a decrease in grants receivable of \$37.5 million, offset by an increase in outstanding customers receivable balance, net of related allowance, of \$9.1 million.

## SEWERAGE & WATER BOARD OF NEW ORLEANS

### MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2018 AND 2017

Current liabilities increase by \$19.6 million primarily due to an increase in Accounts Payable of \$16.1 million as a result of increased capital expenditures during 2018 and timing of payments. Long-term liabilities increased by \$13.5 million primarily due to an increase in net pension liability of \$40.9 million due to changes in actuarial assumption and investment returns, offset by a decrease of \$19.0 million decrease in total other post-employment benefits liability (Total OPEB Liability) and a decrease of \$19.5 million in total outstanding bonds. Deferred outflows of resources and deferred inflows of resources increased by \$31.4 million and \$15.8 million, respectively, due to changes in actuary's assumption on investment returns and demographic factors related to the pension plan.

#### 2017 Net Position

The Board's total assets and deferred outflows at December 31, 2017 were approximately \$3.4 billion, a 4.4% increase from December 31, 2016 (see Table A-2).

<b>Table A-2</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Net Position</b>				
	(Restated) <b>2017</b>	<b>2016</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Current unrestricted assets	\$ 194,955,962	\$ 219,980,110	\$ (25,024,148)	-11.4%
Restricted assets	116,611,194	219,761,583	(103,150,389)	-46.9%
Property, plant, and equipment - net	3,019,092,797	2,744,691,660	274,401,137	10.0%
Other assets	12,291,080	11,824,788	466,292	3.9%
<b>Total assets</b>	<b>3,342,951,033</b>	<b>3,196,258,141</b>	<b>146,692,892</b>	<b>4.6%</b>
Deferred outflows of resources	16,734,173	20,506,855	(3,772,682)	-18.4%
<b>Total deferred outflows of resources</b>	<b>16,734,173</b>	<b>20,506,855</b>	<b>(3,772,682)</b>	<b>-18.4%</b>
<b>Total assets and deferred outflows</b>	<b>\$ 3,359,685,206</b>	<b>\$ 3,216,764,996</b>	<b>\$ 142,920,210</b>	<b>4.4%</b>
Current liabilities	\$ 148,037,878	\$ 97,567,295	\$ 50,470,583	51.7%
Long-term liabilities	1,040,787,916	888,379,320	152,408,596	17.2%
<b>Total liabilities</b>	<b>1,188,825,794</b>	<b>985,946,615</b>	<b>202,879,179</b>	<b>20.6%</b>
Deferred inflows of resources	1,867,968	2,396,433	(528,465)	-22.1%
<b>Total deferred inflows of resources</b>	<b>1,867,968</b>	<b>2,396,433</b>	<b>(528,465)</b>	<b>-22.1%</b>
Net position:				
Net investment in capital assets	2,405,347,069	2,251,197,095	154,149,974	6.8%
Restricted	46,606,340	47,217,981	(611,641)	-1.3%
Unrestricted	(282,961,965)	(69,993,128)	(212,968,837)	304.3%
<b>Total net position</b>	<b>2,168,991,444</b>	<b>2,228,421,948</b>	<b>(59,430,504)</b>	<b>-2.7%</b>
<b>Total liabilities, deferred inflows, and net position</b>	<b>\$ 3,359,685,206</b>	<b>\$ 3,216,764,996</b>	<b>\$ 142,920,210</b>	<b>4.4%</b>

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2018 AND 2017**

The net increase in total assets of \$146.7 million resulted primarily due to an increase in property, plant, and equipment of \$274.4 million. There was a decrease in restricted assets of about \$103.2 million as funds were used for construction projects. Current unrestricted assets decreased by \$25.0 million in 2017 mainly due to a decrease in unrestricted cash and cash equivalents of \$31.3 million, offset by an increase in outstanding customers receivable balance, net of related allowance, of \$4.9 million.

Current liabilities increase by \$50.5 million primarily due to an increase in Accounts Payable of \$44.7 million as a result of increased capital expenditures during 2017 and timing of payments. Long-term liabilities increased by \$152.4 million primarily due to an increase in claims payable of \$41.6 million related to a class-action suit, an increase in the Southeast Louisiana Project liability of \$37.9 million, and an increase of \$97.1 million in the OPEB liability attributable to adoption of a new accounting standard. Deferred outflows of resources and deferred inflows of resources decreased by \$3.8 million and \$528,000, respectively, due to changes in actuary's assumption on investment returns and demographic factors related to the pension plan.

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**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2018 AND 2017**

**2018 Changes in Net Position**

The change in net position for the year ended December 31, 2018 was an increase of approximately \$75.8 million, as opposed to approximately \$34.8 million for the year ended December 31, 2017. The Board's total operating revenues increased by 2.8% to approximately \$211.2 million due primarily to rate increases effective January 1, 2018. Total non-operating revenue increased by 23.5% to approximately \$59.1 million due to a recovery of \$3.2 million in grants previously determined to be uncollectable. Capital contributions from federal grants and construction of Board property was approximately \$100.3 million resulting primarily from capital additions reimbursable under the FEMA Disaster Public Assistance and FEMA Hazard Mitigation grants of approximately \$13.0 million and \$31.1 million, respectively, and approximately \$57.1 million of capital contributions by the Army Corps of Engineers. The changes in net position are detailed in Table A-3; operating expenses are detailed in Table A-4.

<b>Table A-3</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Revenues , Expenses and Change in Net Position</b>				
	<b>2018</b>	<b>2017</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Operating revenues:				
Sales of water and delinquent fees	\$ 90,287,081	\$ 90,464,810	\$ (177,729)	-0.2%
Sewerage service charges	114,614,157	111,063,719	3,550,438	3.2%
Plumbing inspection and license fees	648,332	588,330	60,002	10.2%
Other revenue	5,687,203	3,451,274	2,235,929	64.8%
<b>Total operating revenues</b>	<b>211,236,773</b>	<b>205,568,133</b>	<b>5,668,640</b>	<b>2.8%</b>
Operating expenses (Table A-4)	294,807,252	314,911,503	(20,104,251)	-6.4%
Operating loss	(83,570,479)	(109,343,370)	25,772,891	23.6%
Non-operating revenues:				
Property taxes	54,651,624	55,422,813	(771,189)	-1.4%
Other taxes	594,532	593,424	1,108	0.2%
Federal noncapital grants	78,814	845	77,969	9227.1%
Interest income	3,788,898	4,277,115	(488,217)	-11.4%
Interest expense	(3,204,239)	(3,537,336)	333,097	-9.4%
Recovery (provision) for grants	3,183,641	(8,906,949)	12,090,590	-135.7%
<b>Total non-operating revenues</b>	<b>59,093,270</b>	<b>47,849,912</b>	<b>11,243,358</b>	<b>23.5%</b>
Income before capital contributions	(24,477,209)	(61,493,458)	37,016,249	-60.2%
Capital contributions	100,287,756	96,336,075	3,951,681	4.1%
<b>Change in net position</b>	<b>75,810,547</b>	<b>34,842,617</b>	<b>40,967,930</b>	<b>117.6%</b>
Net position, beginning of year	2,168,991,444	2,228,421,948	(59,430,504)	-2.7%
Change in accounting principle	-	(94,273,121)	94,273,121	N/A
Net position, end of year	\$ 2,244,801,991	\$ 2,168,991,444	\$ 75,810,547	3.5%

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2018 AND 2017**

<b>Table A-4</b>					
<b>Sewerage &amp; Water Board of New Orleans</b>					
<b>Operating Expenses</b>					
	<b>2018</b>		<b>2017</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Power and pumping	\$ 31,874,462		\$ 36,552,523	\$ (4,678,061)	-12.8%
Treatment	22,958,975		25,651,907	(2,692,932)	-10.5%
Transmission and distribution	46,530,018		36,409,559	10,120,459	27.8%
Customer accounts	5,243,276		4,460,155	783,121	17.6%
Customer service	4,476,414		4,217,543	258,871	6.1%
Administration and general	28,253,318		24,343,704	3,909,614	16.1%
Payroll related	49,416,581		38,126,322	11,290,259	29.6%
Maintenance of general plant	28,813,485		26,100,182	2,713,303	10.4%
Depreciation	63,501,190		59,450,076	4,051,114	6.8%
Provision for doubtful accounts	20,942,217		14,326,711	6,615,506	46.2%
(Recovery) provision for claims	(7,202,684)		45,272,821	(52,475,505)	-115.9%
<b>Total operating expenses</b>	<b>\$ 294,807,252</b>		<b>\$ 314,911,503</b>	<b>\$ (20,104,251)</b>	<b>-6.4%</b>

Total operating expenses decreased by approximately \$20.1 million or 6.4% compared to 2017. The increase of \$6.6 million in provision for doubtful accounts was mainly due to customer billing and collection issues in 2018, and a recovery in claims was mainly attributable to a \$11.0 million decrease in general liabilities claims in 2018 as the reserve for SELA project related claims was revised based on the final judgments during 2018. In addition, transmission and distributions increased by \$10.1 million due to repairs and maintenance expenditures on the water, sewer, and drainage systems. Furthermore, payroll related expenses increased by approximately \$11.3 million or 29.6% due to an increase in total number of employees from approximately 1,200 at December 31, 2017 to approximately 1,400 at December 31, 2018.

## SEWERAGE & WATER BOARD OF NEW ORLEANS

### MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2018 AND 2017

#### 2017 Changes in Net Position

The change in net position for the year ended December 31, 2017 was an increase of approximately \$34.8 million, as opposed to approximately \$145.7 million for the year ended December 31, 2016. The Board's total operating revenues increased by 6.7% to approximately \$205.6 million due primarily to rate increases effective January 1, 2017. Total non-operating revenue decreased by 21.9% to approximately \$47.8 million due to a \$8.9 million provision for grants recorded in the current year. Capital contributions from federal grants and construction of Board property was approximately \$96.3 million resulting primarily from capital additions reimbursable under the FEMA Disaster Public Assistance and FEMA Hazard Mitigation grants of approximately \$29.4 million and \$19.5 million, respectively, and approximately \$61.0 million of capital contributions by the Army Corps of Engineers. The changes in net position are detailed in Table A-5; operating expenses are detailed in Table A-6.

<b>Table A-5</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Revenues , Expenses and Change in Net Position</b>				
	<b>2017</b>	<b>2016</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Operating revenues:				
Sales of water and delinquent fees	\$ 90,464,810	\$ 83,158,940	\$ 7,305,870	8.8%
Sewerage service charges	111,063,719	104,795,184	6,268,535	6.0%
Plumbing inspection and license fees	588,330	638,502	(50,172)	-7.9%
Other revenue	3,451,274	4,078,380	(627,106)	-15.4%
<b>Total operating revenues</b>	<b>205,568,133</b>	<b>192,671,006</b>	<b>12,897,127</b>	<b>6.7%</b>
Operating expenses (Table A-6)	314,911,503	227,798,026	87,113,477	38.2%
Operating loss	(109,343,370)	(35,127,020)	(74,216,350)	-211.3%
Non-operating revenues:				
Property taxes	55,422,813	56,029,548	(606,735)	-1.1%
Other taxes	593,424	564,050	29,374	5.2%
Federal noncapital grants	845	24,738	(23,893)	-96.6%
Interest income	4,277,115	4,667,470	(390,355)	-8.4%
Interest expense	(3,537,336)	(32,471)	(3,504,865)	10793.8%
Provison for grants	(8,906,949)	-	(8,906,949)	N/A
<b>Total non-operating revenues</b>	<b>47,849,912</b>	<b>61,253,335</b>	<b>(13,403,423)</b>	<b>-21.9%</b>
Income before capital contributions	(61,493,458)	26,126,315	(87,619,773)	-335.4%
Capital contributions	96,336,075	119,607,318	(23,271,243)	-19.5%
<b>Change in net position</b>	<b>34,842,617</b>	<b>145,733,633</b>	<b>(110,891,016)</b>	<b>-76.1%</b>
Net position, beginning of year	2,228,421,948	2,082,688,315	145,733,633	7.0%
Change in accounting principle	(94,273,121)	-	(94,273,121)	N/A
Net position, end of year	<b>\$ 2,168,991,444</b>	<b>\$ 2,228,421,948</b>	<b>\$ (59,430,504)</b>	<b>-2.7%</b>

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2018 AND 2017**

Table A-6				
Sewerage & Water Board of New Orleans				
Operating Expenses				
	2017	2016	Increase (Decrease)	Increase (Decrease)
Power and pumping	\$ 36,552,523	\$ 13,499,216	\$ 23,053,307	170.8%
Treatment	25,651,907	20,300,344	5,351,563	26.4%
Transmission and distribution	36,409,559	37,174,706	(765,147)	-2.1%
Customer accounts	4,460,155	4,151,027	309,128	7.4%
Customer service	4,217,543	4,271,555	(54,012)	-1.3%
Administration and general	24,343,704	18,506,107	5,837,597	31.5%
Payroll related	38,126,322	43,990,879	(5,864,557)	-13.3%
Maintenance of general plant	26,100,182	23,979,309	2,120,873	8.8%
Depreciation	59,450,076	52,060,674	7,389,402	14.2%
Provision for doubtful accounts	14,326,711	3,413,404	10,913,307	319.7%
Provision for claims	45,272,821	6,450,805	38,822,016	601.8%
<b>Total operating expenses</b>	<b>\$ 314,911,503</b>	<b>\$ 227,798,026</b>	<b>\$ 87,113,477</b>	<b>38.2%</b>

Total operating expenses increased by approximately \$87.1 million or 38.2% compared to 2016. Increase of \$10.9 million in provision for doubtful accounts was mainly due to customer billing issues in 2017, and increase in claims was mainly attributed to a \$38.8 million increase in general liabilities claims in 2017. In addition, power and pumping increased by \$23.1 million due to the August 2017 flood causing an increase in expenditures.

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2018 AND 2017**

**PENSION TRUST FUND**

**2018 Plan Net Position**

The Board's total plan assets and net position of its pension trust fund at December 31, 2018 was approximately \$215.3 million, an 8.5% decrease from December 31, 2017 (see table A-7).

Plan net position decreased by approximately \$20.0 million in 2018 primarily due to net depreciation in fair value of investments by approximately \$8.5 million. An increase of employee and employer contributions of \$0.6 million was offset by an increase of benefit payments of approximately \$1.6 million in 2018.

<b>Table A-7</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Pension Trust Fund Net Position</b>				
	<b>2018</b>	<b>2017</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Cash	\$ 1,456	\$ 230,946	\$ (229,490)	-99.4%
Investments	217,136,196	234,711,857	(17,575,661)	-7.5%
Receivables	63,354	101,269	(37,915)	-37.4%
Due from other fund	73,777	240,245	(166,468)	-69.3%
<b>Total assets</b>	<b>217,274,783</b>	<b>235,284,317</b>	<b>(18,009,534)</b>	<b>-7.7%</b>
Other liabilities	1,995,000	-	1,995,000	N/A
<b>Total liabilities</b>	<b>1,995,000</b>	<b>-</b>	<b>1,995,000</b>	<b>100.0%</b>
<b>Plan net position</b>	<b>\$ 215,279,783</b>	<b>\$ 235,284,317</b>	<b>\$ (20,004,534)</b>	<b>-8.5%</b>

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2018 AND 2017**

**2017 Plan Net Position**

The Board's total plan assets and net position of its pension trust fund at December 31, 2017 was approximately \$235.3 million, a 4.8% increase from December 31, 2016 (see table A-8).

Plan net position increased by approximately \$10.9 million in 2017 primarily due to appreciation in fair value of investment by approximately \$22.5 million and contributions of \$11.8 million offset by benefit payment and other deductions totaling \$24.2 million in 2017.

<b>Table A-8</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Pension Trust Fund Net Position</b>				
	<b>2017</b>	<b>2016</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Cash	\$ 230,946	\$ 40,495	\$ 190,451	470.3%
Investments	234,711,857	224,250,456	10,461,401	4.7%
Receivables	101,269	111,733	(10,464)	-9.4%
Due from other fund	240,245	-	240,245	N/A
<b>Total assets</b>	<b>235,284,317</b>	<b>224,402,684</b>	<b>10,881,633</b>	<b>4.8%</b>
Other liabilities	-	46,423	(46,423)	N/A
<b>Total liabilities</b>	<b>-</b>	<b>46,423</b>	<b>(46,423)</b>	<b>0.0%</b>
<b>Plan net position</b>	<b>\$ 235,284,317</b>	<b>\$ 224,356,261</b>	<b>\$ 10,928,056</b>	<b>4.9%</b>

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2018 AND 2017**

**2018 Changes in Plan Net Position**

Change in net position decreased by \$31.0 million mainly attributable to a \$31.2 million net investment (loss) income change. The decrease in net investment income in 2018 is due stock market performance near the end of 2018 causing depreciation in fair value of the equity investments that account for approximately half of the investment portfolio of the pension trust fund.

<b>Table A-9</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Change in Plan Net Position</b>				
	<b>2018</b>	<b>2017</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
<b>Additions:</b>				
Contributions	\$ 11,186,923	\$ 11,795,214	\$ (608,291)	-5.2%
Net (loss) income on investments	(7,868,279)	23,326,273	(31,194,552)	-133.7%
<b>Total additions</b>	<b>3,318,644</b>	<b>35,121,487</b>	<b>(31,802,843)</b>	<b>-90.6%</b>
<b>Deductions:</b>				
Benefits	(18,565,085)	(16,974,995)	(1,590,090)	9.4%
Employee refunds	(355,206)	(438,134)	82,928	-18.9%
Employee DROP contributions	(4,402,887)	(6,780,302)	2,377,415	-35.1%
<b>Total deductions</b>	<b>(23,323,178)</b>	<b>(24,193,431)</b>	<b>870,253</b>	<b>-3.6%</b>
<b>Change in net position</b>	<b>(20,004,534)</b>	<b>10,928,056</b>	<b>(30,932,590)</b>	<b>-283.1%</b>
Plan net position, beginning of year	235,284,317	224,356,261	10,928,056	4.9%
Plan net position, end of year	<b>\$ 215,279,783</b>	<b>\$ 235,284,317</b>	<b>\$ (20,004,534)</b>	<b>-8.5%</b>

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2018 AND 2017**

**2017 Changes in Plan Net Position**

Change in net position increased by \$9.0 million mainly attributable to a \$10.8 million net investment income change. The increase in net investment income is due to overall market conditions resulting appreciation in fair value of the investments and earnings from investments.

<b>Table A-10</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Change in Plan Net Position</b>				
	<b>2017</b>	<b>2016</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
<b>Additions:</b>				
Contributions	\$ 11,795,214	\$ 10,101,344	\$ 1,693,870	16.8%
Net income on investments	23,326,273	12,569,604	10,756,669	85.6%
<b>Total additions</b>	<b>35,121,487</b>	<b>22,670,948</b>	<b>12,450,539</b>	<b>54.9%</b>
<b>Deductions:</b>				
Benefits	(16,974,995)	(15,757,292)	(1,217,703)	7.7%
Employee refunds	(438,134)	(421,087)	(17,047)	4.0%
Employee DROP contributions	(6,780,302)	(4,563,835)	(2,216,467)	48.6%
<b>Total deductions</b>	<b>(24,193,431)</b>	<b>(20,742,214)</b>	<b>(3,451,217)</b>	<b>16.6%</b>
<b>Change in net position</b>	<b>10,928,056</b>	<b>1,928,734</b>	<b>8,999,322</b>	<b>466.6%</b>
Plan net position, beginning of year	224,356,261	222,427,527	1,928,734	0.9%
Plan net position, end of year	<b>\$ 235,284,317</b>	<b>\$ 224,356,261</b>	<b>\$ 10,928,056</b>	<b>4.9%</b>

## SEWERAGE & WATER BOARD OF NEW ORLEANS

### MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2018 AND 2017

#### CAPITAL ASSET AND DEBT ADMINISTRATION

##### 2018 Capital Assets

As of December 31, 2018, the Board had invested approximately \$4.24 billion in capital assets. Net of accumulated depreciation, the Board's net capital assets at December 31, 2018 totaled approximately \$3.21 billion. This amount represents a net increase (including additions and disposals, net of depreciation) of approximately \$192.3 million, or 6.4%, over December 31, 2017.

At December 31, 2018, the Board's budget for its ten-year capital improvements program totaled approximately \$3 billion, which includes \$166.7 million in capital expenditures for the year ending December 31, 2019 and provides for the following activities:

- Continue Joint Infrastructure Recovery Road in conjunction with City of New Orleans Department of Public Works;
- Comply with regulatory requirements under the Sewer Consent Decree;
- Complete second tower of Water Hammer project;
- Participate in drainage system improvements in coordination with SELA Program;
- Initiate Automated Meter Infrastructure project.

Due to certain regulatory and legislative changes, additional capital improvements will probably be required. Future capital improvement program expenditures may require the issuance of additional debt depending on the amount and timing of expenditures.

See Note 4 for detailed capital asset activity during 2018.

##### 2017 Capital Assets

As of December 31, 2017, the Board had invested approximately \$4.00 billion in capital assets. Net of accumulated depreciation, the Board's net capital assets at December 31, 2017 totaled approximately \$3.02 billion. This amount represents a net increase (including additions and disposals, net of depreciation) of approximately \$274.4 million, or 10.0%, over December 31, 2016.

At December 31, 2017, the Board's budget for its 10-year capital improvements program totaled approximately \$3.16 billion including approximately \$774.8 million for water, \$497.7 million for sewerage, \$832.0 million for drainage, and approximately \$1.10 billion for a combination of water, sewerage, and drainage. Due to certain regulatory and legislative changes, additional capital improvements will probably be required. Future capital improvement program expenditures may require the issuance of additional debt depending on the amount and timing of expenditures. As of December 31, 2017, the Board has committed or appropriated \$47.7 million in investments for use in future capital projects and has approximately \$67.8 million remaining in restricted cash, cash equivalents, and investments for construction.

## SEWERAGE & WATER BOARD OF NEW ORLEANS

### MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2018 AND 2017

The capital improvements budget for 2018 is \$346.5 million, including \$109.9 million for projects which are expected to be funded by federal grants and programs. Significant projects included in property, plant and equipment in progress as of December 31, 2017 include the following:

Hurricane Katrina-related Repairs and Replacements  
Southeast Louisiana Flood Control Program  
Sewer System Sanitation Evaluation and Rehabilitation Program  
Eastbank Sewer Treatment Plant  
Westbank Sewer Treatment Plant  
Wetlands Assimilation Project  
Hazard Mitigation Grant Program

See Note 4 for detailed capital asset activity during 2017.

#### **2018 Debt Administration**

The Board continues to make its regularly scheduled payments on its bonds. During 2018, \$17.5 million in principal payments were made.

The Louisiana Department of Environmental Quality has loaned the Board up to \$9.0 million to fund construction of sewerage treatment works, implementing a management program under Section 1329 of the Water Quality Act of 1987, and developing and implementing a conservation and management plan under Section 1330 of the Federal Act. The outstanding balance is \$6.5 million at December 31, 2018.

The Coastal Protection and Restoration Authority of Louisiana entered into an agreement with the Department of the Army for the Southeast Louisiana Flood Control Program. The United States Government has committed to 65% of the project costs and The Board is responsible for 35% of the project costs. At December 31, 2018, the accumulated amount due to the U.S. Government totaled approximately \$227.1 million. This amount is estimated based on the actual cost of construction incurred to date. Repayment of principal and interest is expected to start in 2019 through 2050. Total payment for the project is estimated to be approximately \$388.9 million through 2050. The total cost of the project may increase in the upcoming years as additional construction costs continue to add to the project.

See Note 6 for detailed long term debt activity during 2018.

## **SEWERAGE & WATER BOARD OF NEW ORLEANS**

### **MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2018 AND 2017**

#### **2017 Debt Administration**

The Board continues to make its regularly scheduled payments on its bonds. During 2017, \$17.6 million in principal payments were made.

The Louisiana Department of Environmental Quality has loaned the Board up to \$9.0 million to fund construction of sewerage treatment works, implementing a management program under Section 1329 of the Water Quality Act of 1987, and developing and implementing a conservation and management plan under Section 1330 of the Federal Act. The outstanding balance is \$6.9 million at December 31, 2017.

The Costal Protection and Restoration Authority of Louisiana entered into an agreement with the Department of the Army for the Southeast Louisiana Flood Control Program. The United States Government has committed to 65% of the project costs and The Board is responsible for 35% of the project costs. At December 31, 2017, the accumulated amount due to the U.S. Government totaled approximately \$201.9 million. This amount is estimated based on the actual cost of construction incurred to date. Repayment of principal and interest is expected to start in 2019 through 2050. Total payment for the project is estimated to be approximately \$348.0 million through 2050. The total cost of the project may increase in the upcoming years as additional construction costs continue to add to the project.

See Note 6 for detailed long term debt activity during 2017.

#### **ECONOMIC FACTORS AND RATES**

The Board, the City Council, and the Board of Liquidation City Debt approved a rate increase of ten percent for the Water and Sewer Departments effective January 1, 2013 and annually thereafter through 2020.

To meet the bond covenant for the 2014 Water and Sewer Revenue and Refunding Bonds and 2015 Water and Sewer Revenue Bonds, the cash in days is required to be maintained 90 days. The SWBNO has exceeded the goals by 85 days and 49 days in the Water and Sewer system respectively.

The total number of open accounts continue to increase modestly on an annual basis. The total open accounts in 2018 were 135,968, an increase of 996 over 2017 open accounts of 134,972.

#### **CONTACTING THE BOARD'S FINANCIAL MANAGEMENT**

This financial report is designed to provide our bondholders, patrons, and other interested parties with a general overview of the Board's finances and to demonstrate the Board's accountability for the money it receives. If you have questions about this report or need additional financial information, contact the Sewerage & Water Board of New Orleans at (504) 585-2356.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**STATEMENTS OF NET POSITION**  
**December 31, 2018 and 2017**

	<b>2018</b>	(RESTATED) <b>2017</b>
<b>ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</b>		
Current assets:		
Cash and cash equivalents	\$ 63,639,346	\$ 82,011,826
Accounts receivable:		
Customers, net of allowance	40,383,662	31,266,628
Taxes	6,493,108	9,652,824
Interest	-	-
Grants	26,810,346	64,315,311
Miscellaneous	5,731,443	2,044,764
Due from pension trust fund	1,995,000	-
Inventory of supplies	4,888,702	4,980,081
Prepaid expenses	537,179	958,236
Total unrestricted and undesignated	150,478,786	195,229,670
Total current assets	150,478,786	195,229,670
Noncurrent assets:		
Restricted cash, cash equivalents, and investments:		
Cash and cash equivalents restricted for capital projects	21,245,567	67,533,646
Debt service reserve	46,042,585	46,606,340
Health insurance reserve	2,196,634	2,197,500
Total restricted cash, cash equivalents, and investments	69,484,786	116,337,486
Property, plant and equipment	4,243,049,265	3,995,723,910
Less: accumulated depreciation	1,034,187,188	976,631,113
Property, plant and equipment, net	3,208,862,077	3,019,092,797
Other assets:		
Funds from/for customer deposits	7,427,424	12,239,765
Deposits	51,315	51,315
Total other assets	7,478,739	12,291,080
Total noncurrent assets	3,285,825,602	3,147,721,363
Total assets	3,436,304,388	3,342,951,033
Deferred outflows of resources:		
Deferred amounts related to net pension liability	45,197,190	13,476,663
Deferred loss on bond refunding	2,925,895	3,257,510
Total deferred outflows of resources	48,123,085	16,734,173
Total assets and deferred outflows of resources	\$ 3,484,427,473	\$ 3,359,685,206

(Continued)

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**STATEMENTS OF NET POSITION**  
**December 31, 2018 and 2017**  
**(Continued)**

LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION	2018	(RESTATED) 2017
Current liabilities (payable from current unrestricted assets):		
Accounts payable	\$ 100,761,801	\$ 84,674,274
Due to City of New Orleans	842,664	556,149
Disaster Reimbursement Revolving Loan (Note 14)	11,221,710	13,241,146
Retainers and estimates payable	10,345,723	11,321,093
Due to pension trust fund	116,376	199,741
Accrued salaries	993,023	1,121,435
Claims payable	4,354,711	4,057,456
Total OPEB liability, due within one year	7,043,121	-
Debt Service Assistance Fund loan payable	5,067,022	4,842,337
Advances from federal government	4,751,868	5,319,762
Other liabilities	467,459	118,212
	145,965,478	125,451,605
Current liabilities (payable from current restricted assets):		
Accrued interest	2,725,236	2,896,884
Bonds payable	16,900,000	17,461,000
Retainers and estimates payable	2,072,266	2,228,389
	21,697,502	22,586,273
	167,662,980	148,037,878
Long-term liabilities:		
Claims payable	44,068,031	55,102,939
Accrued vacation and sick pay	9,693,790	8,000,124
Net pension liability	123,873,465	82,933,718
Total OPEB liability	151,569,144	170,658,516
Bonds payable, net of current maturities	442,697,050	462,165,497
Southeast Louisiana Project liability	227,139,545	201,926,585
Debt Service Assistance Fund loan payable, net of current maturities	42,689,887	47,760,772
Customer deposits	12,577,640	12,239,765
	1,054,308,552	1,040,787,916
	1,221,971,532	1,188,825,794
Deferred inflows of resources:		
Deferred amounts related to net pension liability	5,606,319	1,867,968
Deferred amounts related to total OPEB liability	12,047,631	-
	17,653,950	1,867,968
Net position:		
Net investment in capital assets	2,543,371,049	2,405,073,361
Restricted for debt service	46,042,585	46,606,340
Unrestricted	(344,611,643)	(282,688,257)
	2,244,801,991	2,168,991,444
	\$ 3,484,427,473	\$ 3,359,685,206

See accompanying notes to financial statements.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**  
**For the years ended December 31, 2018 and 2017**

	<u>2018</u>	<u>2017</u>
Operating revenues:		
Sales of water and delinquent fees	\$ 90,287,081	\$ 90,464,810
Sewerage service charges	114,614,157	111,063,719
Plumbing inspection and license fees	648,332	588,330
Other revenue	5,687,203	3,451,274
	<hr/>	<hr/>
Total operating revenues	211,236,773	205,568,133
	<hr/>	<hr/>
Operating expenses:		
Power and pumping	31,874,462	36,552,523
Treatment	22,958,975	25,651,907
Transmission and distribution	46,530,018	36,409,559
Customer accounts	5,243,276	4,460,155
Customer service	4,476,414	4,217,543
Administration and general	28,253,318	24,343,704
Payroll related expenses	49,416,581	38,126,322
Maintenance of general plant	28,813,485	26,100,182
Depreciation	63,501,190	59,450,076
Provision for doubtful accounts	20,942,217	14,326,711
Provision for claims	(7,202,684)	45,272,821
	<hr/>	<hr/>
Total operating expenses	294,807,252	314,911,503
	<hr/>	<hr/>
Operating loss	(83,570,479)	(109,343,370)
	<hr/>	<hr/>
Non-operating revenues (expenses):		
Three-mill tax	15,504,589	15,309,309
Six-mill tax	15,576,221	16,229,098
Nine-mill tax	23,570,261	23,881,671
Two-mill tax	553	2,735
Other taxes	594,532	593,424
Federal noncapital grants	78,814	845
Interest income	3,788,898	4,277,115
Interest expense	(3,204,239)	(3,537,336)
Recovery (provision) for grants	3,183,641	(8,906,949)
	<hr/>	<hr/>
Total non-operating revenues	59,093,270	47,849,912
	<hr/>	<hr/>
(Loss) income before capital contributions	(24,477,209)	(61,493,458)
	<hr/>	<hr/>
Capital contributions	100,287,756	96,336,075
	<hr/>	<hr/>
Change in net position	75,810,547	34,842,617
	<hr/>	<hr/>
Net position, beginning of year	2,168,991,444	2,228,421,948
	<hr/>	<hr/>
Cummulative effect of change in accounting principle (Note 16)	-	(94,273,121)
	<hr/>	<hr/>
Net position, end of year, restated	\$ 2,244,801,991	\$ 2,168,991,444
	<hr/> <hr/>	<hr/> <hr/>

See accompanying notes to financial statements.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
STATEMENTS OF CASH FLOWS  
ENTERPRISE FUND**

**For the years ended December 31, 2018 and 2017**

	<b>2018</b>	<b>2017</b>
Cash flows from operating activities		
Cash received from customers	\$ 175,466,377	\$ 182,957,643
Cash payments to suppliers for goods and services	(111,566,403)	(81,124,197)
Cash payments to employees for services	(93,097,973)	(79,175,213)
Other revenue	653,856	3,698,417
Net cash (used in) provided by operating activities	(28,544,143)	26,356,650
Cash flows from noncapital financing activities		
Proceeds from property taxes	58,405,872	56,226,675
Proceeds from federal noncapital grants	78,814	845
Net cash provided by noncapital financing activities	58,484,686	56,227,520
Cash flows from capital and related financing activities		
Acquisition and construction of capital assets	(161,931,426)	(198,760,189)
Principal payments and refundings of bonds payable	(17,129,385)	(16,855,193)
Principal payments on Debt Service Assistance Fund loan	(4,846,200)	(4,627,616)
Interest paid on bonds payable	(26,712,563)	(27,816,506)
Payments to construction fund	(2,104,067)	(1,195,183)
Proceeds from construction fund	84,631	3,338,097
Capital contributed by developers and federal grants	108,484,725	24,664,924
Net cash used in capital and related financing activities	(104,154,285)	(221,251,666)
Cash flows from investing activities		
Investment income	4,176,222	4,655,631
Net cash provided by investing activities	4,176,222	4,655,631
Net decrease in cash	(70,037,520)	(134,011,865)
Cash at the beginning of the year	204,697,353	338,709,218
Cash at the end of the year	\$ 134,659,833	\$ 204,697,353
Reconciliation of cash, designated cash, and restricted cash (Note 2)		
Current assets - cash	\$ 67,816,770	\$ 90,727,883
Restricted assets - cash	66,843,063	113,969,470
Total cash	\$ 134,659,833	\$ 204,697,353

**(Continued)**

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**STATEMENTS OF CASH FLOWS**  
**ENTERPRISE FUND**  
**For the years ended December 31, 2018 and 2017**  
**(Continued)**

	<b>2018</b>	<b>2017</b>
Reconciliation of operating loss to net cash provided by operating activities is as follows:		
Operating loss	\$ (83,570,479)	\$ (109,343,370)
Adjustments to reconcile net operating loss to net cash provided by operating activities:		
Depreciation	63,501,190	59,450,076
(Recovery) provision for claims	(7,202,684)	45,272,821
Provision for doubtful accounts	20,942,217	14,326,711
Change in operating assets and liabilities:		
Increase in customer receivables	(30,059,251)	(19,198,445)
Increase in due from other internal departments	(1,995,000)	-
Decrease (increase) in inventory	91,379	(223,886)
Decrease in prepaid expenses and other receivables	(3,265,622)	(681,613)
(Increase) decrease in deferred outflows of resources related to net pension liability	(31,720,527)	3,427,875
Increase in net pension obligation	40,939,747	2,184,060
Increase in accounts payable	1,483,846	33,047,738
Increase (decrease) in accrued salaries, due to pension and accrued vacation and sick pay	1,481,889	(1,492,268)
Increase in customer deposits	337,875	466,292
(Decrease) increase in total OPEB liability	(12,046,251)	2,805,054
Decrease in other liabilities	(3,248,454)	(3,155,930)
Increase (decrease) in deferred inflows of resources related to net pension liability and total OPEB liability	15,785,982	(528,465)
Net cash (used in) provided by operating activities	\$ (28,544,143)	\$ 26,356,650
Schedule of non-cash capital and related financing activities		
Contributions of capital assets	\$ 31,923,743	\$ 71,671,151
Additions of property, plant and equipment in accounts payable	\$ 44,868,859	\$ 30,265,178

See accompanying notes to financial statements.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**STATEMENTS OF FIDUCIARY NET POSITION**  
**PENSION TRUST FUND**  
**December 31, 2018 and 2017**

	<b>2018</b>	<b>2017</b>
Assets:		
Cash	\$ 1,456	\$ 230,946
Receivables:		
Investment income	63,354	56,208
Employee contributions receivable	-	45,061
Due from other fund	73,777	240,245
Investments:		
Money market	1,682,862	975,593
LAMP	12,215,716	11,610,897
Debt securities	79,846,858	81,607,684
Hedge funds	16,979,004	20,968,656
Equities	106,411,756	119,549,027
Total assets	217,274,783	235,284,317
Liabilities:		
Due to other fund	1,995,000	-
Total Liabilities	1,995,000	-
Net position - restricted for pension benefits	\$ 215,279,783	\$ 235,284,317

See accompanying notes to financial statements.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**STATEMENTS OF CHANGES IN FIDUCIARY PLAN NET POSITION**  
**PENSION TRUST FUND**  
**For the years ended December 31, 2018 and 2017**

	<b>2018</b>	<b>2017</b>
Additions:		
Contributions:		
Employee contributions	\$ 2,535,027	\$ 2,139,705
Employer contributions	8,419,441	7,239,467
City annuity and other transfers in	232,455	2,416,042
Due from other fund	11,186,923	11,795,214
Investment income:		
Interest income	329,929	234,286
Dividend income	1,363,919	1,464,805
Net (depreciation) appreciation	(8,547,940)	22,500,911
	(6,854,092)	24,200,002
Less: investment expense	1,014,187	873,729
Net investment (loss) income	(7,868,279)	23,326,273
Due to other fund	3,318,644	35,121,487
Deductions:		
Benefits	(18,565,085)	(16,974,995)
Employee refunds	(355,206)	(438,134)
Employee contributions to DROP	(4,402,887)	(6,780,302)
Total deductions	(23,323,178)	(24,193,431)
Change in net position	(20,004,534)	10,928,056
Net position restricted for pension benefits at beginning of year	235,284,317	224,356,261
Net position restricted for pension benefits at end of year	\$ 215,279,783	\$ 235,284,317

See accompanying notes to financial statements.

**NOTES TO  
BASIC FINANCIAL STATEMENTS**

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS

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### 1. Summary of Significant Accounting Policies

#### A. History and Organization

The major operation of the Sewerage and Water Board of New Orleans (the Board) is providing water, sewerage, and drainage services for the City of New Orleans (the City). The Sewerage and Water Board of New Orleans was created by Act 6 of the Louisiana Legislature of 1899 as a special board independent of the City's government to construct, maintain, and operate a water treatment and distribution system and a public sanitary sewerage system for the City. In 1903, the Legislature gave the Board control of and responsibility for the City's major drainage system and relieved the City of the duty of providing in its annual operating budget or otherwise for the maintenance and operations of the water, sewerage, and drainage systems.

In accordance with the Louisiana Revised Statutes (LRS) 33:4096 and 4121, the Board has the authority to establish the water and sewerage rates to charge to its customers. The rates are based on the actual water consumed and on the costs of maintenance and operation of the water and sewerage systems, including the costs of improvements and replacements. The collections of water and sewerage revenues are to be used by the Board for the maintenance and operation of the systems, the cost of improvements, betterments, and replacements and to provide for the payments of interest and principal on the bonds payable. On November 14, 2012, the Board approved both sewer and water rate increases commencing January 1, 2013. The sewer and water rates increase approximately 10% each year until the year of 2020. This increase was approved by the New Orleans City Council on November 14, 2012.

The Board has also been given the authority to levy and collect various tax millages, which are used for the operation and maintenance of the drainage operations. All excess revenues collected are made available for capital development of the system. The proceeds of the rate collections and tax millages are invested in such investments as authorized by the LRS. These investments are reflected in the combined statements of net position, as "restricted assets," as they are restricted to the purposes as described above.

The Sewerage and Water Board of New Orleans' eleven-member Board of Directors consists of the Mayor, the chair of the Public Works, Sanitation and Environment Committee of the New Orleans City Council or his designee, two representatives of the Board of Liquidation, and seven citizen members, of which five represent council districts and two consumer advocates and one of the appointments shall be a retired civil engineer.

The Board's accounting policies conform to accounting principles generally accepted in the United States of America as applicable to utilities and to governmental units as set forth through the Government Accounting Standard Board. The following is a summary of the more significant policies.

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS (Continued)

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### 1. Summary of Significant Accounting Policies (continued)

#### B. Reporting Entity

In conformity with the Governmental Accounting Standards Board's definition of a reporting entity, the Board includes an enterprise fund and a pension trust fund for financial reporting purposes. The Board is considered a reporting entity based on the following criteria:

- 1) Responsibility for surpluses/deficits. The Board is solely responsible for its surpluses/deficits. In accordance with LRS, no other governmental unit is responsible for the Board's deficits or has a claim to its surpluses. The Board's operations are self-sustaining; revenues are generated through charges to customers and dedicated property taxes. Other than grants, no funding is received from the State of Louisiana or the City of New Orleans.
- 2) Budget Approval. The Board is solely responsible for reviewing, approving, and revising its budget.
- 3) Responsibility for Debt. The LRS authorize the Board to issue bonds; such bonds must bear on their face a statement that they do not constitute a debt of the City. The Board is solely responsible for payments to bondholders. No other governmental unit is required by statute to make any payments to bondholders nor have any payments to bondholders ever been made by any governmental unit, except the Board.
- 4) Designation of Management. The Board controls the hiring of management and employees.
- 5) Special Financial Relationship. The Board has no special financial relationships with any other governmental unit.
- 6) Statutory Authority. The Board's statutory authority was created by the State of Louisiana as an independent governmental unit. Only an amendment to the state statutes can change or abolish the Board's authority.

The Board is a stand-alone entity as defined by Governmental Accounting Standards Board Statement 61, *The Financial Reporting Entity: Omnibus—an amendment of GASB Statements No. 14 and No. 34 and GASB Codification Section 2100*. The Board is a legally-separate governmental organization that does not have a separately elected governing body and does not meet the definition of a component unit. As a result of a Louisiana Supreme Court decision on March 21, 1994, the Board was declared to be an autonomous or self-governing legal entity, legally independent of the City, State and other governments, created and organized pursuant to Louisiana Revised Statutes 33:4071 as a board, separate and independent of the governing authorities of the City and vested with autonomous or self-governing authority. No other government can mandate actions of the Board nor impose specific financial burdens, except the approval of the City Council and the Board of Liquidation in the case of bond issues and certain rate increases. As such, the City considers the Board to be a component unit of the City and includes the Board, as a discreetly presented component unit, in the City's annual financial statements. However, the Board is fiscally independent to operate under its bond covenant and the provisions of LRS provisions.

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS (Continued)

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### 1. Summary of Significant Accounting Policies (continued)

#### C. Basis of Financial Statement Presentation

The Board's basic financial statements consist of the government-wide statements which include the proprietary fund (the enterprise fund) and the fund financial statements which includes the fiduciary fund (the pension trust fund).

The operations of the Board are accounted for in the following fund types:

#### Proprietary Fund Type

The proprietary fund is used to account for the Board's ongoing operations and activities, which are similar to those often found in the private sector. The proprietary fund is accounted for using a flow of economic resources measurement focus. With this measurement focus, all assets and all liabilities associated with the operation of these funds are included on the statement of net position. Net position is segregated into amounts invested in capital assets (net of related debt), restricted for debt service, restricted for capital projects, and unrestricted. The Board's restricted assets are expendable for their purposes. The Board utilizes available unrestricted assets before utilizing restricted assets. The operating statements present increases (revenues) and decreases (expenses) in net position. The Board maintains one proprietary fund type – the enterprise fund. The enterprise fund is used to account for operations (a) that are financed and operated in a manner similar to private business enterprises--where the intent of the governing body is that the cost (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance.

Operating revenues include all charges for service; other revenues include reconnection fees and other miscellaneous charges. Operating expenses include the costs associated with providing water, sewerage, and drainage services. Interest income, interest expense, and tax revenues are presented as non-operating items.

The enterprise fund is presented in the government-wide financial statements.

#### Fiduciary Fund Type

The fiduciary fund is used to account for assets held by the Board in a trustee capacity or as an agent for individuals, private organizations, other governmental units, and/or other funds. The Board maintains one fiduciary fund type - the pension trust fund. The pension trust fund uses the flow of economic resources measurement focus. All assets and liabilities associated with the operation of this fund are included in the statement of plan net assets. The pension trust fund is used to account for the activity of the Board's employee retirement plan, which is a blended component unit of the Board as defined by Section 2100 of the GASB Codification.

The pension trust fund is presented in the fund financial statements.

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS (Continued)

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### 1. Summary of Significant Accounting Policies (continued)

#### D. Basis of Accounting

The enterprise fund and the pension trust fund prepare their financial statements on the accrual basis of accounting. Unbilled utility service charges are not recorded as management considers the effect of not recording such unbilled receivables as not material. Property taxes are recorded as revenue in the year for which they are levied. Plan member contributions are recognized in the period in which contributions are due. Employer contributions to the pension plan are recognized when due and the employer has made a commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

#### E. Investments

Investments are recorded at fair value, except for short-term investments (maturity of one year or less), which are recorded at amortized cost, which approximates fair value. Securities traded in a national or international exchange are valued at the last recorded sales price at current exchange rates. Investments that do not have an established market are recorded at estimated fair value. Investment income and expenses, including changes in the fair value of the investments, are recognized in the Statements of Revenues, Expenses, and Changes in Net Position.

#### F. Inventory of Supplies

Inventory of supplies is valued at the lower of cost or market. Cost is determined by the weighted average cost method.

#### G. Vacation and Sick Pay

Vacation (annual leave) and sick pay (sick leave) are accrued when earned. Annual leave is accrued at the rate of .6923 of a workday for each bi-weekly accrual period for all employees on the payroll as of December 31, 1978. Employees hired after that date earn leave at a rate of .5 of a workday per bi-weekly pay period.

All employees on the payroll as of December 31, 1978 receive three bonus days each year; all employees hired after that date receive three bonus days each year for five through nine calendar years of continuous service; six bonus days each year for ten through fourteen years; nine bonus days each year for fifteen through nineteen years; and, twelve days for twenty or more years of continuous service. Civil Service's policy permits employees a limited amount of earned but unused annual leave which will be paid to employees upon separation from the Board. The amount shall not exceed ninety days for employees hired before January 1, 1979, and forty-five days for employees hired after December 31, 1978.

Sick leave is accumulated on a bi-weekly basis by all employees hired prior to December 31, 1978 at an accrual rate of .923 of a workday. For employees hired subsequent to December 31, 1978, the accrual rate is .5 of a workday for each bi-weekly period, plus a two-day bonus each year for employees with six through fifteen calendar years of continuous service, and seven bonus days each year for employees with sixteen or more calendar years of continuous service.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**1. Summary of Significant Accounting Policies (continued)**

**F. Vacation and Sick Pay (continued)**

Upon separation from the Board, an employee can elect to convert unused sick leave for retirement credits or cash. The conversion to cash is determined by a rate ranging from one day of pay for five days of leave for the 1st through 100th leave day to one day of pay for one day of leave for all days in excess of the 400th leave day. The total liability for unconverted sick leave as of December 31, 2018 and 2017 is approximately \$13,258,512 and \$12,996,493, respectively. The amount included in the statements of net position as of December 31, 2018 and 2017 is \$9,693,790 and \$8,000,124, respectively, which represents the annual leave and the converted sick leave for cash since virtually all employees convert their sick leave to cash. The Board books the compensated absences as a long-term liability. The amounts for compensated absences include the salary cost as well as certain salary related costs, such as the Board's share of social security expense. The following table summarizes changes in the Board's vacation and sick pay liability.

<u>Year</u>	<u>Beginning of Year Liability</u>	<u>Current Year Earned and Changes in Estimate</u>	<u>Payments</u>	<u>End of Year Liability</u>
2018	\$ 8,000,124	\$ 5,711,446	\$ (4,017,780)	\$ 9,693,790
2017	\$ 9,822,495	\$ 1,440,948	\$ (3,263,319)	\$ 8,000,124

**G. Property, Plant, and Equipment**

Property, plant, and equipment are carried at historical cost. The Board capitalizes moveable equipment with a value of \$10,000 or greater, stationary, network, and other equipment with a value of \$5,000 or greater and all real estate. The cost of additions includes contracted work, direct labor, materials, and allocable cost. Donated capital assets are recorded at their acquisition value at the date of donation.

Interest is capitalized on property, plant, and equipment acquired and/or constructed with tax exempt debt. Depreciation is computed using the straight-line method over the estimated useful life of the asset. When assets are retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts and any resulting gain or loss is recognized in revenue for the period. The cost of maintenance and repairs is charged to operations as incurred, and significant renewals and betterments are capitalized. Deductions are made for retirements resulting from renewals or betterments.

**H. Self-Insurance/Risk Management**

The Board is self-insured for general liability, workers' compensation, unemployment compensation, and hospitalization benefits and claims. The accrued liability for the various types of claims represents an estimate by management of the eventual loss on the claims arising prior to year-end, including claims incurred and not yet recorded including estimates of both future payments of losses and related claims adjustment and expense. Estimated expenses and recoveries are based on a case by case review.

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS (Continued)

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### 1. Summary of Significant Accounting Policies (continued)

#### I. Bond Issuance Costs and Refinancing Gains (Losses)

Costs related to issuing bonds are expensed when incurred. Premiums and discounts associated with bond issues are amortized over the interest yield method.

#### J. Deferred Inflows/Outflows of Resources

Deferred outflows of resources represent a consumption of net position that applies to future periods and so will not be recognized as an outflow of resources (expense) until then. The deferred charge on refunding recorded on the statements of net position results from the difference in carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt.

Deferred inflows and outflows have been recognized for the net difference between the projected and actual investment earnings, this amount is deferred and amortized over a period of five years. In addition, deferred inflows and outflows have been recognized for the differences between the actuarial expectation and the actual economic experience and changes in actuarial assumptions related to the defined benefit pension plan and the other post-retirement benefit plan. These amounts are deferred and amortized over the average of the expected service lives of pension plan members. See Note 8 and Note 9 for additional information on deferred inflows and outflows related to the pension plan and the other post-retirement benefits plan, respectively.

#### K. Pension

The Board may fund all or part of the accrued pension cost, depending on the resources that are available at the time of contribution, for its contributory pension plan which covers substantially all employees. Annual costs are actuarially computed using the entry age normal cost method.

#### L. Drainage System

In 1903, the Legislature gave the Board control of and responsibility for the City's drainage system. The Drainage System was established as a department of the enterprise fund to account for the revenues from three-mill, six-mill, and nine-mill ad valorem taxes designated exclusively for drainage services. These revenues have been supplemented by inspection and license fees collected by the Board. There exists a potential for additional financing by additional user service charges. Expenditures from the system are for the debt service of three-mill, six-mill, and nine-mill tax bonds and drainage related operation, maintenance, and construction.

#### M. Capital Contributions

Contributions from developers and others, and receipts of Federal, State, and City grants for acquisition of property, plant, and equipment are recorded as capital contributions in the statements of revenues, expenses, and changes in net position.

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS (Continued)

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### 1. Summary of Significant Accounting Policies (continued)

#### N. Net Position Flow Assumption

Sometimes the Board will fund outlays for a particular purpose from both restricted (e.g. restricted bond or grant proceeds) and unrestricted resources. In order to calculate the amounts to report as restricted net position and unrestricted net position, a flow assumption must be made about the order in which the resources are considered to be applied. The Board's policy is to consider restricted net position to have been depleted before unrestricted-net position is applied.

#### O. Net Position

Net investment in capital assets – This component of net position consists of capital assets, net of accumulated depreciation, and reduced by the outstanding debt attributable to the acquisition, construction, or improvement of those assets. If there are significant unspent related debt proceeds at year-end, the portion of the debt attributable to the unspent proceeds is not included in this component of net position. Rather, that portion of debt is included in the same component of net position as the unspent proceeds.

Restricted – This net position component reports externally imposed constraints placed on their use by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation.

Unrestricted – Unrestricted net position is the balance (deficit) of all other elements in a statement of net position remaining after net investment in capital assets and restricted net position.

#### P. Cash Flows

For purposes of the statements of cash flows, only cash on hand and on deposit at financial institutions is considered to be cash equivalents. Certificates of deposits, treasury bills, and other securities are considered investments.

#### Q. Operating and Nonoperating Revenues

Proprietary funds distinguish operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and delivering goods in connection with principal ongoing operations. The principal operating revenues of the Board are charges to customers for sales and services. Operating expenses include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are recorded as nonoperating revenues and expenses.

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS (Continued)

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### 1. Summary of Significant Accounting Policies (continued)

#### R. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the recorded amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the recorded amounts of revenue and expenditures during the period. Actual results could differ from those estimates.

#### S. Reclassifications

Certain accounts in the prior-year financial statements have been reclassified for comparative purposes to conform to the presentation in the current-year financial statements. This reclassification had no effect on previously reported change in net position.

### 2. Cash and Investments

The Board's investments and cash consist primarily of investments in direct obligations of the United States or agencies thereof and deposits with financial institutions.

Custodial Credit Risk – Deposits – Custodial credit risk is the risk that in the event of a bank failure, the government's deposits may not be returned to it. Statutes require that the Board's cash and certificates of deposit be covered by federal depository insurance or collateral. At December 31, 2018, the Board's interest bearing deposits with banks consisted of cash and money market funds totaling \$93,431,241 and certificates of deposit of \$275,567. At December 31, 2017, the Board's interest bearing deposits with banks consisted of cash and money market funds totaling \$166,677,175 and certificates of deposit of \$273,708. The Board's cash bank balances and all certificates of deposit for 2018 and 2017 were covered by federal depository insurance or collateral held by custodial agents of the financial institutions in the name of the Board.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**2. Cash and Investments (continued)**

The following are the components of the Board's cash and investments as of December 31 for the Enterprise Fund:

	<b>2018</b>		
	<b>Unrestricted</b>	<b>Restricted</b>	<b>Total</b>
Cash and money market funds	\$ 67,541,203	\$ 66,843,063	\$ 134,384,266
Certificates of deposit	275,567	-	\$ 275,567
	67,816,770	66,843,063	134,659,833
Investments - LAMP	3,250,000	2,641,723	5,891,723
Total cash and investments	<u>\$ 71,066,770</u>	<u>\$ 69,484,786</u>	<u>\$ 140,551,556</u>

	<b>2017</b>		
	<b>Unrestricted</b>	<b>Restricted</b>	<b>Total</b>
Cash and money market funds	\$ 90,727,883	\$ 113,695,763	\$ 204,423,646
Certificates of deposit	273,708	-	273,708
	91,001,591	113,695,763	204,697,354
Investments - LAMP	3,250,000	2,641,723	5,891,723
Total cash and investments	<u>\$ 94,251,591</u>	<u>\$ 116,337,486</u>	<u>\$ 210,589,077</u>

**A. Fair Value Measurement**

To the extent available, the Board's investments are recorded at fair value as of December 31, 2018 and 2017. GASB Statement No. 72 – Fair Value Measurement and Application, defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. This statement establishes a hierarchy of valuation inputs based on the extent to which the inputs are observable in the marketplace. Inputs are used in applying the various valuation techniques and take into account the assumptions that market participants use to make valuation decisions. Inputs may include price information, credit data, interest and yield curve data, and other factors specific to the financial instrument. Observable inputs reflect market data obtained from independent sources. In contrast, unobservable inputs reflect the entity's assumptions about how market participants would value the financial instrument. Valuation techniques should maximize the use of observable inputs to the extent available.

A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. The following describes the hierarchy of inputs used to measure fair value and the primary valuation methodologies used for financial instruments measured at fair value on a recurring basis.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**2. Cash and Investments (continued)**

**A. Fair Value Measurement (continued)**

Investments - Statutes authorize the Board to invest in obligations of the U.S. Treasury, agencies, and instrumentalities, commercial paper rated A-1 by Standard & Poors Corporation or P-1 by Moody's Commercial Paper Record, repurchase agreements, and the Louisiana Asset Management Pool (LAMP). In addition, the pension trust fund is authorized to invest in corporate bonds rated BBB or better by Standard & Poors Corporation or Baa or better by Moody's Investors Service and equity securities.

A summary of the Board's investments, including the Pension Trust Fund, along with the Fair value hierarchy levels of each type of investment as of December 31, 2018 and 2017 are as follows:

	<b>2018</b>			
	<u>Total</u>	<u>Quoted Prices in Active Markets (Level 1 Inputs)</u>	<u>Significant Other Observable Inputs (Level 2 Inputs)</u>	<u>Significant Unobservable Inputs (Level 3 Inputs)</u>
Investment by Fair Value Level:				
Equities	\$ 106,411,756	\$ 106,411,756	\$ -	\$ -
Debt Securities	79,846,858	-	79,846,858	
Hedge Funds	16,979,004	-	16,979,004	
Total Investments at Fair Value Level	<u>\$ 203,237,618</u>	<u>\$ 106,411,756</u>	<u>\$ 96,825,862</u>	<u>\$ -</u>
Investment measured at the net asset value (NAV):				
Money market funds	\$ 70,106,275			
LAMP	18,107,439			
Certificate of Deposit	275,567			
Total Investments at NAV	<u>\$ 88,489,281</u>			
Total Investments at Fair Value	<u>\$ 291,726,899</u>			

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**2. Cash and Investments (continued)**

**A. Fair Value Measurement (continued)**

	<b>2017</b>			
	<u>Total</u>	<u>Quoted Prices in Active Markets (Level 1 Inputs)</u>	<u>Significant Other Observable Inputs (Level 2 Inputs)</u>	<u>Significant Unobservable Inputs (Level 3 Inputs)</u>
Investment by Fair Value Level:				
Equities	\$ 119,549,027	\$ 119,549,027	\$ -	\$ -
Debt Securities	81,607,684	-	81,607,684	
Hedge Funds	20,968,656	-	20,968,656	
Total Investments at Fair Value Level	<u>\$ 222,125,367</u>	<u>\$ 119,549,027</u>	<u>\$ 102,576,340</u>	<u>\$ -</u>
Investment measured at the net asset value (NAV):				
Money market funds	\$ 165,542,957			
LAMP	17,502,620			
Certificate of Deposit	273,708			
Total Investments at NAV	<u>\$ 183,319,285</u>			
Total Investments at Fair Value	<u>\$ 405,444,652</u>			

*Money market funds, LAMP, and certificate of deposit are measured using NAV as a practical expedient. These investments have not been classified in the fair value hierarchy table. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the line items presented in the statement of net assets available for benefits.*

A reconciliation of the enterprise and pension funds to the total investments at December 31, 2018 and 2017 is as follows:

	<b>2018</b>		
	<u>Enterprise</u>	<u>Pension</u>	<u>Total</u>
Money market	\$ 68,423,413	\$ 1,682,862	\$ 70,106,275
LAMP	5,891,723	12,215,716	18,107,439
Certificate of deposit	275,567	-	275,567
Other investments	-	203,237,618	203,237,618
Total cash and investments	<u>\$ 74,590,703</u>	<u>\$ 217,136,196</u>	<u>\$ 291,726,899</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**2. Cash and Investments (continued)**

**A. Fair Value Measurement (continued)**

A reconciliation of the enterprise and pension funds to the total investments at December 31, 2017 is as follows:

	<b>2017</b>		
	<b>Enterprise</b>	<b>Pension</b>	<b>Total</b>
Money market	\$ 164,567,364	\$ 975,593	\$ 165,542,957
LAMP	5,891,723	11,610,897	17,502,620
Certificate of deposit	273,708	-	273,708
Other investments	-	222,125,367	222,125,367
<b>Total cash and investments</b>	<b>\$ 170,732,795</b>	<b>\$ 234,711,857</b>	<b>\$ 405,444,652</b>

Pension trust fund is held in trust and governed pursuant to an indenture between the trustee financial institution and the Board.

**B. Louisiana Asset Management Pool (LAMP)**

LAMP is administered by LAMP, Inc., a non-profit corporation organized under the laws of the State of Louisiana. Only local government entities having contracted to participate in LAMP have an investment interest in its pool of assets. The primary objective of LAMP is to provide a safe environment for the placement of public funds in short-term, high quality investments. The LAMP portfolio includes only securities and other obligations in which local governments in Louisiana are authorized to invest in accordance with Louisiana R.S. 33:2955.

GASB Statement No. 40 Deposit and Investment Risk Disclosure, requires disclosure of credit risk, custodial credit risk, concentration of credit risk interest rate risk, and foreign currency risk for all public entity investments.

LAMP is an investment pool that, to the extent practical, invests in a manner consistent with GASB Statement No. 79. The following facts are relevant for investment pools:

- Credit risk: LAMP is rated AAAM by Standard & Poor's.
- Custodial credit risk: LAMP participants' investments in the pool are evidenced by shares of the pool. Investments in pools should be disclosed but not categorized because they are not evidenced by securities that exist in physical or book-entry form. The public entity's investment is with the pool, not the securities that make up the pool; therefore, no disclosure is required.
- Concentration of credit risk: Pooled investments are excluded from the 5 percent disclosure requirement.

## SEWERAGE AND WATER BOARD OF NEW ORLEANS

### NOTES TO FINANCIAL STATEMENTS (Continued)

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#### 2. Cash and Investments (continued)

##### B. Louisiana Asset Management Pool (LAMP) (continued)

- Interest rate risk: LAMP is designed to be highly liquid to give its participants immediate access to their account balances. LAMP prepares its own interest rate risk disclosure using the weighted average maturity (WAM) method. The WAM of LAMP assets is restricted to not more than 60 days and consists of no securities with a maturity in excess of 397 days. The WAM for LAMP's total investments is 89 as of December 31, 2018.
- Foreign currency risk: Not applicable.

The investments in LAMP are stated at fair value. The fair value is determined on a weekly basis by LAMP and the value of the position in the external investment pool is the same as the net asset value of the pool shares.

LAMP, Inc. is subject to the regulatory oversight of the state treasurer and the board of directors. LAMP is not registered with the SEC as an investment company.

##### C. Credit and Interest Risk

Credit Risk - State law limits investments in securities issued, or backed by United States Treasury obligations, and U.S. Government instrumentalities, which are federally sponsored. The Board's investment policy does not further limit its investment choices. LAMP is rated AAAM by Standard & Poor's. The Pension Trust Fund's investment policy requires that fixed income investments be investment grade (BBB or higher as rated by Standard & Poor's or Baa or higher as rated by Moody's). Bonds rated below BBB/Baa are not to exceed 15% of the portfolio, and non-rated bonds are not to exceed 1% of the portfolio.

Interest Rate Risk - Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. In general, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The Board has a formal investment policy that states that the investment portfolio shall remain sufficiently liquid to meet all operating and capital requirements that may be reasonably anticipated and that maturities of investments are to be structured concurrent with cash needs to meet anticipated demand.

Foreign Currency Risk – The Pension Trust Fund's exposure to foreign currency risk derives from its positions in foreign currency-denominated fixed-income investments. The Pension Trust Fund's investment policy permits it to invest up to 5 percent of total investments in foreign currency-denominated fixed-income investments. The Pension Trust Fund's current position is 2.0 percent. The investments in foreign currency-denominated corporate bonds were rated by Standard & Poor's.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**2. Cash and Investments (continued)**

**C. Credit and Interest Risk (continued)**

Following are the credit risk ratings of the Pension Trust Fund's investments in debt securities as of December 31, 2018:

<u>Rating</u>	<u>Corporate Bonds</u>	<u>Foreign Government Bonds</u>	<u>Government Bonds and U.S. Treasury Notes</u>	<u>Other</u>	<u>Total</u>	<u>Percentage of Total</u>
AAA	\$ -	\$ 77,436	\$ 29,680,165	\$ 19,836,544	\$ 49,594,145	62.11%
AA+	-	-	-	4,568	4,568	0.01%
AA	52,304	214,378	-	73,752	340,434	0.43%
AA-	832,954	17,339	-	13,810	864,103	1.08%
A+	1,238,783	-	70,087	-	1,308,870	1.64%
A	3,063,443	-	31,900	401,221	3,496,564	4.38%
A-	4,433,541	102,295	-	145,759	4,681,595	5.86%
BBB+	2,646,483	1,782,272	-	129,144	4,557,899	5.71%
BBB	3,738,728	105,312	-	164,878	4,008,918	5.02%
BBB-	3,945,209	101,140	17,006	709,902	4,773,257	5.98%
BB+	815,168	52,055	-	160,445	1,027,668	1.29%
BB	724,745	559,172	10,840	171,100	1,465,857	1.84%
BB-	513,814	142,769	-	155,164	811,747	1.02%
B+	336,640	184,666	-	61,441	582,747	0.73%
B	432,304	571,415	-	206,084	1,209,803	1.52%
B-	265,336	349,440	-	194,628	809,404	1.01%
CCC+	79,931	-	-	2,888	82,819	0.10%
CCC	42,516	118	-	17,260	59,894	0.08%
CCC-	-	-	-	-	-	0.00%
CC	-	233	-	-	233	0.00%
C	-	-	-	37,849	37,849	0.05%
Not Rated	128,484	-	-	-	128,484	0.16%
<b>Total</b>	<b>\$ 23,290,383</b>	<b>\$ 4,260,040</b>	<b>\$ 29,809,998</b>	<b>\$ 22,486,437</b>	<b>\$ 79,846,858</b>	<b>100.00%</b>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**2. Cash and Investments (continued)**

**C. Credit and Interest Risk (continued)**

Following are the credit risk ratings of the Pension Trust Fund's investments in debt securities as of December 31, 2017:

Rating	Corporate Bonds	Foreign Government Bonds	Government Bonds and U.S. Treasury Notes	Other	Total	Percentage of Total
AAA	\$ -	\$ 3,972	\$ 42,361,399	\$ 4,119,108	\$ 46,484,479	56.96%
AA+	-	-	-	2,941,468	2,941,468	3.60%
AA	70,751	24,515	-	85,784	181,050	0.22%
AA-	271,697	-	268,882	28,352	568,931	0.70%
A+	902,153	102,119	-	60,441	1,064,713	1.30%
A	4,238,695	39,467	-	189,587	4,467,749	5.47%
A-	3,970,964	55,935	-	136,085	4,162,984	5.10%
BBB+	3,274,255	1,551,202	93,272	85,519	5,004,248	6.13%
BBB	3,877,270	162,662	764,000	182,689	4,986,621	6.11%
BBB-	4,154,975	130,372	-	643,716	4,929,063	6.04%
BB+	1,293,997	141,649	-	82,703	1,518,349	1.86%
BB	565,246	724,579	-	136,414	1,426,239	1.75%
BB-	788,982	116,821	-	135,962	1,041,765	1.28%
B+	608,821	318,374	-	12,534	939,729	1.15%
B	510,817	197,479	-	141,002	849,298	1.04%
B-	259,496	294,479	-	110,154	664,129	0.81%
CCC+	108,203	3,602	-	26,581	138,386	0.17%
CCC	128,426	10,203	-	45,857	184,486	0.23%
CCC-	-	7,805	-	7,423	15,228	0.02%
CC	-	7,120	-	7,330	14,450	0.02%
Not Rated	-	-	-	24,319	24,319	0.03%
<b>Total</b>	<b>\$ 25,024,748</b>	<b>\$ 3,892,355</b>	<b>\$ 43,487,553</b>	<b>\$ 9,203,028</b>	<b>\$ 81,607,684</b>	<b>100%</b>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**2. Cash and Investments (continued)**

**D. Pension Trust Fund Investments**

As of December 31, 2018, the Pension Trust Fund had the following investments in debt securities and maturities:

Investment Type	Duration					Total
	Less than 1 Year	1 - 5 Years	6 - 10 Years	Greater Than 10 Years	Duration Not Available	
Corporate Bonds	\$ 757,368	\$ 10,462,955	\$ 8,523,696	\$ 3,518,539	\$ 972	\$ 23,263,530
Foreign Government Bonds	322,621	2,374,111	820,195	743,113	-	4,260,040
Government Bonds and U.S. Treasury Notes	123,736	17,338,937	7,301,201	5,046,124	-	29,809,998
Other	1,406,747	11,745,698	9,275,301	-	85,544	22,513,290
<b>Total</b>	<b>\$ 2,610,472</b>	<b>\$ 41,921,701</b>	<b>\$ 25,920,393</b>	<b>\$ 9,307,776</b>	<b>\$ 86,516</b>	<b>\$ 79,846,858</b>

As of December 31, 2017, the Pension Trust Fund had the following investments in debt securities and maturities:

Investment Type	Duration					Total
	Less than 1 Year	1 - 5 Years	6 - 10 Years	Greater Than 10 Years	Duration Not Available	
Corporate Bonds	\$ 2,315,819	\$ 11,068,192	\$ 9,009,756	\$ 2,535,874	\$ 95,107	\$ 25,024,748
Foreign Government Bonds	125,426	1,502,993	992,511	1,172,130	99,295	3,892,355
Government Bonds and U.S. Treasury Notes	884,858	28,907,286	10,309,032	3,386,377	-	43,487,553
Other	3,992,328	2,215,261	705,127	2,228,621	61,691	9,203,028
<b>Total</b>	<b>\$ 7,318,431</b>	<b>\$ 43,693,732</b>	<b>\$ 21,016,426</b>	<b>\$ 9,323,002</b>	<b>\$ 256,093</b>	<b>\$ 81,607,684</b>

**E. Security Lending**

Under the provisions of its benefit plan and state law, the Board's pension benefit trust engages in securities lending to broker dealers and other entities for cash collateral that will be returned for the same securities in the future. The cash collateral cannot be liquidated by the Board unless the borrower defaults. Cash collateral is initially pledged at 102.73% of the market value of securities lent and additional collateral is provided by the next business day if the value falls to less than 100% of the market value of the securities lent. No collateral exposure existed at December 31, 2018 and 2017. The value of securities lent at December 31, 2018 and 2017 was \$38,867,570 and \$31,264,473, respectively. The market value of the cash collateral at December 31, 2018 and 2017 was \$39,740,372 and \$32,001,957, respectively.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**3. Customer Receivables**

Customer receivables as of December 31 consist of the following:

		<b>2018</b>		
		Customer	Allowance for Doubtful	
		Accounts	Accounts	Net
Water		\$ 38,104,851	\$ 18,184,910	\$ 19,919,941
Sewer		40,847,768	20,384,047	20,463,721
		<u>\$ 78,952,619</u>	<u>\$ 38,568,957</u>	<u>\$ 40,383,662</u>
		<b>2017</b>		
		Customer	Allowance for Doubtful	
		Accounts	Accounts	Net
Water		\$ 25,764,357	\$ 11,867,730	\$ 13,896,627
Sewer		26,340,384	8,970,383	17,370,001
		<u>\$ 52,104,741</u>	<u>\$ 20,838,113</u>	<u>\$ 31,266,628</u>

**4. Property, Plant, and Equipment**

The useful lives of property, plant, and equipment consisted of the following:

Power and pumping stations - buildings	57 years
Power and pumping stations - machinery	40 years
Distribution systems	75 years
Sewerage collection	75 years
Canals and subsurface drains	75 to 100 years
Treatment plants	50 years
Connections and meters	50 years
Power transmission	50 years
General plant	12 years
General buildings	25 years

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**4. Property, Plant and, Equipment (continued)**

Property, plant, and equipment consisted of the following as of December 31:

	<b>2018</b>			
	Beginning Balance	Additions	Deletions/ Reclassifications	Ending Balance
<b>Cost</b>				
Real estate rights, non depreciable	\$ 13,633,314	\$ 154,243	\$ -	\$ 13,787,557
Power and pumping stations - buildings	392,628,067	3,975,631	-	396,603,698
Power and pumping stations - machinery	352,957,605	13,815,272	-	366,772,877
Distribution systems	318,178,664	46,768,402	(2,664,244)	362,282,822
Sewerage collection	616,199,180	129,175,333	(2,679,099)	742,695,414
Canals and subsurface drainage	894,121,872	22,688,678	-	916,810,550
Treatment plants	206,081,699	995,748	-	207,077,447
Connections and meters	105,461,284	1,611,336	(158,155)	106,914,465
Power transmission	36,491,223	870,406	-	37,361,629
General plant and buildings	311,898,675	22,081,238	(443,619)	333,536,294
Total property, plant, and equipment in service	3,247,651,583	242,136,287	(5,945,117)	3,483,842,753
Construction in progress	748,072,327	253,270,472	(242,136,287)	759,206,512
Total property, plant, and equipment	3,995,723,910	495,406,759	(248,081,404)	4,243,049,265
<b>Accumulated Depreciation</b>				
Power and pumping stations - buildings	152,824,897	6,940,565	-	159,765,462
Power and pumping stations - machinery	186,124,471	9,168,242	-	195,292,713
Distribution systems	55,009,815	4,947,305	(2,664,244)	57,292,876
Sewerage collection	66,080,583	10,379,263	(2,679,097)	73,780,749
Canals and subsurface drainage	102,067,331	9,304,163	-	111,371,494
Treatment plants	76,756,379	4,141,549	-	80,897,928
Connections and meters	40,212,101	2,138,289	(158,155)	42,192,235
Power transmission	17,028,057	731,797	-	17,759,854
General plant and buildings	280,527,479	15,750,017	(443,619)	295,833,877
Total accumulated depreciation	976,631,113	63,501,190	(5,945,115)	1,034,187,188
Net property, plant, and equipment	\$ 3,019,092,797	\$ 431,905,569	\$ (242,136,289)	\$ 3,208,862,077

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**4. Property, Plant, and Equipment (continued)**

Cost	2017			
	Beginning Balance	Additions	Deletions/ Reclassifications	Ending Balance
Real estate rights, non depreciable	\$ 13,547,277	\$ 86,037	\$ -	\$ 13,633,314
Power and pumping stations - buildings	379,432,414	13,195,653	-	392,628,067
Power and pumping stations - machinery	322,649,434	30,308,171	-	352,957,605
Distribution systems	270,088,600	50,786,128	(2,696,064)	318,178,664
Sewerage collection	519,874,279	99,555,275	(3,230,374)	616,199,180
Canals and subsurface drainage	705,506,297	188,615,575	-	894,121,872
Treatment plants	200,711,986	5,369,713	-	206,081,699
Connections and meters	100,243,678	5,492,216	(274,610)	105,461,284
Power transmission	31,817,948	4,673,275	-	36,491,223
General plant and buildings	284,595,466	28,465,281	(1,162,072)	311,898,675
Total property, plant, and equipment in service	2,828,467,379	426,547,324	(7,363,120)	3,247,651,583
Construction in progress	840,768,438	333,851,213	(426,547,324)	748,072,327
Total property, plant, and equipment	3,669,235,817	760,398,537	(433,910,444)	3,995,723,910
<b>Accumulated Depreciation</b>				
Power and pumping stations - buildings	145,953,194	6,871,703	-	152,824,897
Power and pumping stations - machinery	177,301,655	8,822,816	-	186,124,471
Distribution systems	53,474,103	4,231,776	(2,696,064)	55,009,815
Sewerage collection	61,115,508	8,195,449	(3,230,374)	66,080,583
Canals and subsurface drainage	93,086,279	8,981,052	-	102,067,331
Treatment plants	72,634,745	4,121,634	-	76,756,379
Connections and meters	38,531,995	1,954,716	(274,610)	40,212,101
Power transmission	16,319,111	708,946	-	17,028,057
General plant and buildings	266,127,567	15,561,984	(1,162,072)	280,527,479
Total accumulated depreciation	924,544,157	59,450,076	(7,363,120)	976,631,113
Net property, plant, and equipment	\$ 2,744,691,660	\$ 700,948,461	\$ (426,547,324)	\$ 3,019,092,797

Interest capitalized was as follows for the years ended December 31:

	2018	2017
Interest income	\$ 2,955,770	\$ 3,487,177
Interest expense	(23,685,923)	(24,951,780)
Net interest capitalized	\$ (20,730,153)	\$ (21,464,603)

**5. Due to City of New Orleans**

The Board bills and collects sanitation charges on behalf of the City of New Orleans (the City). The Board is not liable for any uncollected sanitation charges. Additionally, amounts included in accounts payable due to the City for works performed by the Department of Public Works on behalf of the Board, were \$5,988,758 and \$706,646 at December 31, 2018 and 2017, respectively.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**6. Long-Term Obligations**

**A. Bonds Payable**

Bonds payable consisted of the following as of December 31:

	<u>Principal Balances</u>	
	<u>2018</u>	<u>2017</u>
0.45% sewerage service subordinate revenue bonds, series 2011 (initial average interest cost 0.95%); due in annual principal installments ranging from \$411,000 to \$491,000; final payment due December 1, 2032.	6,475,000	6,906,000
2.00% to 4.00% drainage system limited tax bonds, series 2014 (initial average interest cost 1.88%); due in annual principal installments ranging from \$535,000 to \$2,000,000; final payment due December 1, 2022.	7,665,000	9,410,000
2.00% to 5.00% sewerage service revenue bonds, series 2014 (initial average interest cost 3.86%); due in annual principal installments ranging from \$1,970,000 to \$12,970,000; final payment due June 1, 2044.	110,440,000	122,365,000
5.00% water revenue bonds, series 2014 (initial average interest cost 4.43%); due in annual principal installments ranging from \$325,000 to \$6,225,000; final payment due December 1, 2044.	98,000,000	100,660,000
4.98% water revenue bonds, series 2015 (initial average interest cost 4.38%); due in annual principal installments ranging from \$325,000 to \$6,225,000; final payment due December 1, 2045.	99,300,000	100,000,000
5.00% sewerage service revenue bonds, series 2015 (initial average interest cost 4.39%); due in annual principal installments ranging from \$325,000 to \$6,225,000; final payment due December 1, 2045.	100,000,000	100,000,000
	<u>421,880,000</u>	<u>439,341,000</u>
Plus: bond premiums	37,717,050	40,285,497
Total	459,597,050	479,626,497
Less: current maturities	(16,900,000)	(17,461,000)
Bond payable, long-term	<u>\$ 442,697,050</u>	<u>\$ 462,165,497</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**6. Long-Term Obligations (continued)**

A. Bonds Payable (continued)

The changes in long-term debt were as follows:

	<b>2018</b>	<b>2017</b>
Balance, beginning of year	\$ 439,341,000	\$ 456,968,000
Payments	(17,461,000)	(17,627,000)
Balance, end of year	\$ 421,880,000	\$ 439,341,000

The annual requirements to amortize bonds payable as of December 31, 2018, are as follows:

<b>Year</b>	<b>Principal</b>	<b>Interest</b>	<b>Total</b>
2019	\$ 16,900,000	\$ 20,203,929	\$ 37,103,929
2020	17,819,000	19,389,996	37,208,996
2021	17,453,000	18,581,121	36,034,121
2022	16,087,000	17,836,752	33,923,752
2023	10,756,000	17,215,265	27,971,265
2024-2028	51,212,000	78,779,854	129,991,854
2029-2033	62,473,000	65,674,090	128,147,090
2034-2038	79,380,000	48,788,613	128,168,613
2039-2043	101,595,000	26,574,250	128,169,250
2044-2045	48,205,000	3,066,125	51,271,125
	\$ 421,880,000	\$ 316,109,995	\$ 737,989,995

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**6. Long-Term Obligations (continued)**

**A. Bonds Payable (continued)**

The annual requirements to pay principal revenue bonds and tax bonds payable as of December 31, 2018, are as follows:

<b>Year</b>	<b>Revenue Bonds</b>	<b>Tax Bonds</b>	<b>Total</b>
2019	\$ 15,085,000	\$ 1,815,000	\$ 16,900,000
2020	15,924,000	1,895,000	17,819,000
2021	15,498,000	1,955,000	17,453,000
2022	14,087,000	2,000,000	16,087,000
2023	10,756,000	-	10,756,000
2024-2028	51,212,000	-	51,212,000
2029-2033	62,473,000	-	62,473,000
2034-2038	79,380,000	-	79,380,000
2039-2043	101,595,000	-	101,595,000
2044-2045	48,205,000	-	48,205,000
	\$ 414,215,000	\$ 7,665,000	\$ 421,880,000

The indentures under which these bonds were issued provide for the establishment of restricted funds for debt service as follows:

1. Debt service funds are required for the payment of interest and principal on the revenue and tax bonds. Monthly deposits on revenue bonds, excluding bond anticipation notes, are required to be made into this fund from operations in an amount equal to 1/6 of the interest falling due on the next interest payment date, and an amount equal to 1/12 of the principal falling due on the next principal payment date. All debt service funds are administered by the Board of Liquidation. The required amount to be accumulated in this fund was \$27,634,803 and \$28,198,557 at December 31, 2018 and 2017, respectively; the accumulated balance at December 31, 2018 and 2017 was \$27,634,803 and \$28,198,557 respectively.
2. The water bonds require an amount equal to the largest amount required in any future calendar year to pay the principal of and interest on outstanding bonds. The sewer bonds require an amount equal to 125% of average aggregate debt service. The amounts required to be accumulated in this fund were \$18,407,782 at December 31, 2018 and 2017; the accumulated balance at December 31, 2018 and 2017 was \$18,407,782.

Operating revenues, net of operating expenses, are pledged as security for all revenue bond issues.

## SEWERAGE AND WATER BOARD OF NEW ORLEANS

### NOTES TO FINANCIAL STATEMENTS (Continued)

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#### 6. Long-term Obligations (continued)

##### B. Sewerage Service Revenue Bonds, Series 2011

The City entered into an agreement with the Louisiana Department of Environmental Quality (LDEQ) whereby the LDEQ has committed to loan the Board \$9,000,000 to fund sewer main replacements, point repairs, replacement of associated service connections and laterals, sewer line rehabilitation by cured in-place pipe lining and manhole rehabilitation. The loan is to be advanced in incremental amounts as project costs are incurred. The indebtedness to the LDEQ will be evidenced through the Sewerage Service Subordinate Revenue Bonds, Series 2011. Upon issuance of subsequent bonds, the indebtedness was to spring from subordinate to a senior lien status. That conversion took place with the issuance of the Series 2014 bonds. Annual principal payments are due beginning November 1, 2013 continuing through December 1, 2032. Interest on the bonds is incurred at the rate of 0.45%, and the LDEQ administrative fee rate is 0.5%. Interest and administrative fee payments began on May 1, 2012 and are due semi-annually thereafter. As of December 31, 2018 and 2017, \$6,475,000 and \$6,906,000 is included as bonds payable, respectively.

##### C. Series 2014 Bonds

During 2014, the Board refunded the Series 1997, 1998, 2000, 2000B, 2001, 2002, 2003, 2004, and 2009 Sewerage bonds. The Board issued \$158,990,000 in Series 2014 Sewerage Service Revenue and Refunding Bonds with a final maturity of June 1, 2044. The bond proceeds, less issuance costs, and investments were used to refund the outstanding principle balance of the sewerage bonds in the amount of \$121,870,000. By refunding these bonds, the Board estimated \$20,696,313 in future savings related to future interest and principal payments. The Board estimated an economic gain of approximately \$18,397,306. The cost of issuance of the Series 2014 Sewerage Bonds totaled \$1,345,380, and the deferred loss on refunding was \$4,708,925. Bond proceeds of \$47,300,000 were restricted for capital projects.

During 2014, the Board refunded the Series 1998 and 2002 Water Bonds. The Board issued \$103,525,000 in Series 2014 Water Revenue and Refunding Bonds with a final maturity of December 1, 2044. The bond proceeds, less issuance costs, and investments were used to refund the outstanding principle balance of the Water Bonds in the amount of \$27,655,000. By refunding these bonds, the Board estimated \$1,359,352 in future savings related to future interest and principal payments. The Board estimated an economic gain of approximately \$2,738,262. The cost of issuance of the Series 2014 Water Bonds totaled \$1,040,131 and the deferred loss on refunding was \$34,901. Bond proceeds of \$77,000,000 were restricted for capital projects.

During 2014, the Board refunded the Series 1998 and 2002 Drainage Bonds. The Board issued \$14,900,000 in Series 2014 Drainage Refunding Bonds with a final maturity of December 1, 2022. The bond proceeds, less issuance costs, and investments were used to refund the outstanding principle balance of the Drainage Bonds in the amount of \$16,205,000. By refunding these bonds, the Board estimated \$2,968,676 in future savings related to future interest and principal payments. The Board estimated an economic gain of approximately \$2,846,558. The cost of issuance of the Series 2014 Drainage Refunding Bonds totaled \$263,828, and the deferred loss on refunding was \$347,533.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**6. Long-term Obligations (continued)**

**D. Series 2015 Bonds**

During 2015, the Board issued \$100,000,000 in Series 2015 Water Revenue Bonds with an original issue premium of \$12,686,122 and a final maturity of December 1, 2045. In addition, the Board issued \$100,000,000 in Series 2015 Sewerage Revenue Bonds with an original issue premium of \$12,826,410 and a final maturity date of December 1, 2045. Proceeds from such bonds were used to finance capital improvements.

**E. Debt Service Assistance**

In July 2006, the Board and the State of Louisiana (the State) entered into a Cooperative Endeavor Agreement whereby the State agreed to lend up to \$77,465,247 from State funds on deposit in the Debt Service Assistance Fund, authorized by the Gulf Opportunity Zone Act of 2005 and Act 41 of the First Extraordinary Session of the Louisiana Legislature of 2006, to assist in payment of debt service requirements from 2006 through 2008 due to disruption of tax bases and revenue streams caused by Hurricanes Katrina and Rita. Draw downs on the loan were made as debt service payments became due. No principal or interest was payable during the initial five-year period of the loan. After the expiration of the initial five-year period, the loan shall bear interest at a fixed rate of 4.64 percent. Principal payments on the bonds began in July 2012, and the loan will mature in July 2026. Interest is payable semi-annually on January 15 and July 15 beginning January 2012. The loan may be prepaid without penalty or premium.

As of December 31, 2018, debt service requirements relating to the bonds are as follows:

<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2019	\$ 5,067,022	\$ 2,216,164	\$ 7,283,186
2020	5,301,601	1,981,078	7,282,679
2021	5,547,595	1,735,083	7,282,678
2022	5,805,003	1,477,675	7,282,678
2023	6,074,355	1,208,323	7,282,678
2024-2026	19,961,333	1,880,950	21,842,283
	<u>\$ 47,756,909</u>	<u>\$ 10,499,273</u>	<u>\$ 58,256,182</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**6. Long-term Obligations (continued)**

**F. Southeast Louisiana Project**

In 2010, the Coastal Protection and Restoration Authority of Louisiana entered into agreements (SELA PPA and SELA DPA) with the Department of the Army for the Southeast Louisiana, Louisiana Project in Jefferson and Orleans Parishes (the Project). The purpose of the Project is to provide flood damage reduction and interior drainage for Orleans and Jefferson Parishes in southeast Louisiana. The agreements set forth the obligations of the federal government and non-federal sponsors, including the Board, regarding the construction and the operation, maintenance, repair, rehabilitation, and replacement of the Project. For the projects, the federal government is responsible for 65% of the project costs and the non-federal sponsors are responsible for the remaining 35%.

Under the agreement, the Department of the Army, subject to the availability of funds appropriated by the Congress of the United States, shall design and construct specified work at 100% federal expense. The Board will be allowed to defer payment of its required non-federal contribution of funds of 35% and to pay said contribution of funds with interest over a period of not more than 30 years from the date of completion of the project or separable element of the project. The interest rate to be used in computing the interest shall be determined by the Secretary of the Treasury, taking into consideration average market yields on outstanding marketable obligations of the United States with remaining periods of maturity comparable to the payment period during the month preceding the Government fiscal year in which the first federal construction contract for such separable element is awarded to the SELA PPA, plus a premium of one-eighth of one percentage point for transaction costs. The amount due, including accrued interest, as of December 31, 2018 and 2017 is \$227,139,545 and \$201,926,585, respectively. Total amount due is expected to increase through October 2021, estimated project completion date.

At December 31, 2018, the Board is responsible for 35% of construction costs incurred for the Project that consists of 16 contracts, grouped in 5 basins. Expected project completion date, payment start date, as well as interest rate for each basin are as follows:

<u>Basin</u>	<u>Expected Completion Date</u>	<u>Payment Start Date</u>	<u>Interest Rate</u>
OP-2	October 2021	February 2022	3.000%
OP-3	April 2019	August 2019	4.375%
OP-4	August 2020	August 2020	4.375%
OP-5	March 2020	April 2020	3.000%
OP-6	March 2020	April 2020	3.500%

During 2012 through 2018, the Board accrued approximately \$26.5 million of interest on construction costs incurred to date. Final amount due for each basin will be determined by the Department of Army upon project completion.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**6. Long-term Obligations (continued)**

**F. Southeast Louisiana Project (continued)**

As of December 31, 2018, projected debt service requirements relating to the total amount due are as follows:

<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2019	\$ (189,044)	\$ 1,178,236	\$ 989,192
2020	(1,483,327)	6,099,521	4,616,194
2021	1,664,751	2,951,443	4,616,194
2022	(8,289,455)	21,560,846	13,271,391
2023	5,539,932	7,731,459	13,271,391
2024 - 2028	30,343,384	36,013,569	66,356,953
2029 - 2033	35,293,932	31,063,022	66,356,954
2034 - 2038	41,089,015	25,267,939	66,356,954
2039 - 2043	47,875,397	18,481,557	66,356,954
2044 - 2048	55,825,934	10,531,020	66,356,954
2049- 2050	19,469,026	846,943	20,315,969
	<u>\$ 227,139,545</u>	<u>\$ 161,725,555</u>	<u>\$ 388,865,100</u>

*\*Note: Future payments are first applied toward interest accrued to-date since inception, resulting negative principal payments in year 2019, 2020, and 2022.*

**7. Defined Benefit Pension Plan**

**A. Plan Descriptions**

The Board has a single-employer contributory retirement plan covering all full-time employees, the Pension Trust Fund (PTF). The Board's payroll for current employees covered by the PTF for the years ended December 31, 2018 and 2017 was \$50,679,697 and \$41,822,648, respectively; such amounts exclude overtime and standby payroll. At December 31, the PTF membership consisted of:

	<u>2018</u>	<u>2017</u>
Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	1,034	892
Current employees:	1,210	1,083
Total	<u>2,244</u>	<u>1,975</u>

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS (Continued)

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### 7. Defined Benefit Pension Plan (continued)

#### A. Plan Descriptions (continued)

##### *Benefits Provided*

The benefit provisions were established by action of the Board in 1956 in accordance with Louisiana statutes. The Board retains exclusive control over the plan through the Pension Committee of the Board. Effective January 1, 1996, the plan became qualified under Internal Revenue Code Section 401(a) and thus is tax exempt.

The plan provides for retirement benefits as well as death and disability benefits. All benefits vest after five years of service. Employees who retire at or after age 65 with ten years of credited service are entitled to an annual retirement benefit, payable biweekly for life, in an amount equal to two percent of their average compensation for each year of credited service up to ten years, increasing by (1) one-half percent per year for service years over ten years, (2) an additional one-half percent per year for service years over twenty years and (3) an additional one percent per year for service years over thirty years, for a maximum of four percent for each year of credited service. Average compensation is the average annual earned compensation (prior to 2002, less \$1,200) for the period of 36 successive months of service during which the employee's compensation was the highest. Employees with thirty years or more of credited service may retire without a reduction in benefits. Employees may retire prior to age 62 without 30 years of service with a reduction in benefits of three percent for each year of age below the age of 62. If an employee leaves covered employment or dies before three years of credited service, the accumulated employee contributions plus related investment earnings are refunded to the employee or designated beneficiary.

The retirement allowance for retirees over age 65 is subject to a cost of living adjustment each January 1, provided that the member retired on or after January 1, 1984. The adjustment is based on the increase in the Consumer Price Index for all urban wage earners published by the U.S. Department of Labor but is limited to an annual maximum of two percent on the first \$10,000 of initial retirement benefits.

Effective September 23, 1993, employers may transfer credit between the Board's plan and the City of New Orleans' retirement system with full credit for vested service. The Board and its employees are obligated under plan provisions to make all required contributions to the plan. The required contributions are actuarially determined. Level percentage of payroll employer contribution rates is determined using the entry age normal actuarial funding method. Employees are required to contribute four percent of their regular salaries or wages.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**7. Defined Benefit Pension Plan (continued)**

A. Plan Descriptions (continued)

*Deferred Retirement Option Program (DROP)*

Beginning in 1996, the Board offered employees a “Deferred Retirement Option Plan” (DROP), an optional retirement program which allows an employee to elect to freeze his or her retirement benefits but continue to work and draw a salary for a minimum period of one year to a maximum period of five years. While continuing employment, the retirement benefits are segregated from overall plan assets available to other participants. As of December 31, 2018 and 2017, 116 and 116 employees, respectively, participated in the plan. The amount of plan assets segregated for these individuals was \$9,774,961 and \$9,294,547 as of December 31, 2018 and 2017, respectively.

B. Funding Policy

The actuary determined contribution requirement for the Board was 20.170% and 31.175% for 2018 and 2017. The contribution requirement for employees for the years ended December 31, 2018 and 2017 was 6.0%. The actual Board’s and employees’ contributions (including contributions for transferred employees from other pension plans) for the years ended December 31 were as follows:

	<b>2018</b>	<b>2017</b>
Employer and other transfers	\$ 8,651,896	\$ 9,655,509
Employee	2,535,027	2,139,705
Total contributions	\$ 11,186,923	\$ 11,795,214

C. Net Pension Liability

The Board’s Net Pension Liability was measured as of December 31, 2018 and 2017. The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

D. Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2018 and 2017, using the following actuarial assumptions:

	<b>2018</b>	<b>2017</b>
Investment rate of return	7.00%	7.00%
Inflation	2.50%	2.00%
Salary increases including inflation	5.00%	5.00%

SEWERAGE AND WATER BOARD OF NEW ORLEANS

NOTES TO FINANCIAL STATEMENTS  
(Continued)

7. Defined Benefit Pension Plan (continued)

D. Actuarial Assumptions (continued)

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by an asset allocation percentage which is based on the nature and mix of current and expected plan investments and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Pension Trust Fund's current and expected asset allocation as of December 31, 2018 are summarized in the following table:

<u>Asset Class</u>	<u>Long-Term Expected Real Rate of Return</u>
Equities	8.5%
Fixed Income	6.5%
Alternative	7.0%
Cash and Equivalents	--

*Discount Rate*

The discount rate used to measure the total pension liability was 7% for the 2018 and 2017 plan years. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that the plan's contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the PTF's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

*Investment Rate of Return*

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. For the years ended December 31, 2018 and 2017, the annual money-weighted rates of return on pension plan investments, net of pension plan investment expenses, were -3.31% and 10.52%, respectively.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**7. Defined Benefit Pension Plan (continued)**

**E. Actuarial Assumptions (continued)**

*Sensitivity of the Net Pension Liability to Change in the Discount Rate*

The following presents the net pension liability of the Board as of December 31, 2018 and 2017, calculated using the discount rate of 7%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6%) or 1-percentage-point higher (8%) than the current rate.

	1% Decrease 6%	Current Discount Rate 7%	1% Increase 8%
<u>December 31, 2018</u>			
Total pension liability	\$ 372,533,875	\$ 339,153,248	\$ 310,824,053
Fiduciary net position	215,279,783	215,279,783	215,279,783
Net pension liability	157,254,092	123,873,465	95,544,270
 <u>December 31, 2017</u>			
Total pension liability	\$ 347,528,250	\$ 318,218,035	\$ 296,691,527
Fiduciary net position	235,284,317	235,284,317	235,284,317
Net pension liability	112,243,933	82,933,718	61,407,210

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**7. Defined Benefit Pension Plan (continued)**

**F. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions**

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Balances at December 31, 2017	\$ 318,218,035	\$ 235,284,317	\$ 82,933,718
Changes for the year:			
Service cost	4,354,989	-	4,354,989
Interest	21,763,800	-	21,763,800
Difference between expected and actual experience	(5,689,086)	-	(5,689,086)
Changes of assumptions	23,596,233	-	23,596,233
Contributions – employer	-	8,419,441	(8,419,441)
Contributions – employee	-	2,535,027	(2,535,027)
Contributions – fines	-	-	-
Net investment income	-	(7,868,279)	7,868,279
Benefit payments, including refunds of employee contributions	(23,323,178)	(23,323,178)	-
Other	232,455	232,455	-
Administrative expense	-	-	-
Net changes	<u>20,935,213</u>	<u>(20,004,534)</u>	<u>40,939,747</u>
Balances at December 31, 2018	<u>\$ 339,153,248</u>	<u>\$ 215,279,783</u>	<u>\$ 123,873,465</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**7. Defined Benefit Pension Plan (continued)**

**F. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (continued)**

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a)-(b)
Balances at December 31, 2016	\$ 305,105,919	\$ 224,356,261	\$ 80,749,658
Changes for the year:			
Service cost	3,797,316	-	3,797,316
Interest	21,357,414	-	21,357,414
Difference between expected and actual experience	9,734,775	-	9,734,775
Changes of assumptions	-	-	-
Contributions – employer	-	7,239,467	(7,239,467)
Contributions – employee	-	2,139,705	(2,139,705)
Contributions – fines	-	-	-
Net investment income	-	23,326,273	(23,326,273)
Benefit payments, including refunds of employee contributions	(24,193,431)	(24,193,431)	-
Other	2,416,042	2,416,042	-
Administrative expense	-	-	-
Net changes	<u>13,112,116</u>	<u>10,928,056</u>	<u>2,184,060</u>
Balances at December 31, 2017	<u>\$ 318,218,035</u>	<u>\$ 235,284,317</u>	<u>\$ 82,933,718</u>

For the years ended December 31, 2018 and 2017, the Board recognizes a pension expense of \$21,377,012 and \$9,882,526, respectively, in payroll related expense on the statements of revenues, expenses, and changes in net position.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**7. Defined Benefit Pension Plan (continued)**

**F. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (continued)**

On December 31, 2018 and 2017, the Board recorded Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
<u>December 31, 2018</u>		
Differences between expected and actual experience	\$ 8,093,186	\$ 5,606,319
Changes of assumptions	17,697,175	-
Net difference between projected and actual earnings on pension plan investments	19,406,829	-
Total	\$ 45,197,190	\$ 5,606,319
 <u>December 31, 2017</u>		
Differences between expected and actual experience	\$ 9,279,166	\$ 1,867,968
Net difference between projected and actual earnings on pension plan investments	4,197,497	-
Total	\$ 13,476,663	\$ 1,867,968

Amounts recorded as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in pension expense as follows:

2019	\$	12,889,879
2020		8,831,249
2021		8,551,819
2022		5,968,663
2023		1,185,981
2024		1,081,642
2025		1,081,638
	\$	39,590,871

**G. The Board's Pension Plan Fiduciary Net Position**

A separate report on the pension trust fund is not issued.

SEWERAGE AND WATER BOARD OF NEW ORLEANS

NOTES TO FINANCIAL STATEMENTS  
(Continued)

8. Other Post-Employment Benefits

*Plan Description* – The Board’s post-employment benefit plan is a single-employer defined benefit plan. The Board’s post-employment medical benefits for retirees are provided through a self-insured medical plan and are made available to employees upon actual retirement.

*Participation* – All active Employees as defined in the Rules and Regulations of the Employees’ Retirement System of the Board, which is generally an employee who regularly works more than 17.5 hours per week, are eligible to participate in the plan.

*Employees covered by benefit terms* – At December 31, 2018, the following employees were covered by the benefit terms:

Inactive employees or beneficiaries currently receiving benefit payments	659
Inactive employees entitled to but not yet receiving benefit payments	-
Active employees	1,326
	<u>1,985</u>

*Total OPEB Liability*

The Board’s total OPEB liability of \$158,612,265 was measured as of December 31, 2018, and was determined by an actuarial valuation as of December 31, 2018.

*Actuarial Assumptions and other inputs* – The total OPEB liability in the December 31, 2018 actuarial valuation was determined using the following actuarial assumptions and other inputs, applied to all periods included in the measurement, unless otherwise specified:

Inflation	2.5%
Salary increases	5.0%, including inflation
Discount rate	4.1%
Healthcare cost trend rates	7.0% for FY20 decreasing 0.5% per year to an ultimate rate of 4.5% for FY25 and later years
Mortality	1994 Uninsured Pensioner (UP-94) mortality table, projected to 2002 using Scale AA, gender distinct

The discount rate used to measure the Total OPEB Liability as of December 31, 2018 was 4.10%. The discount rate used to determine the Total OPEB Liability as of December 31, 2017 was 3.44%.

Municipal Bond Rate: 4.10% as of December 31, 2018 and 3.44% as of December 31, 2017; the source of the municipal bond rate is the Bond Buyer Index of general obligation bonds with 20 years to maturity and mixed credit quality. In describing their index, the Bond Buyer notes that the bonds’ average credit quality is roughly equivalent to Moody’s Investors Service’s Aa2 rating and Standard & Poor’s Corp.’s AA.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**8. Other Post-Employment Benefits (continued)**

The actuarial assumptions used in the December 31, 2018 valuation were based on the results of ongoing evaluations of the assumptions from December 31, 2017 to December 31, 2018.

*Changes in the Total OPEB Liability*

Balance at December 31, 2017	\$ 170,658,516
Changes for the year:	
Service cost	5,134,251
Interest	5,926,129
Changes of benefit terms	-
Differences between expected and actual experience	-
Changes of assumptions or other inputs	(16,063,510)
Benefits Payments (employer)	(7,043,121)
Other	-
Net changes	(12,046,251)
Balance at December 31, 2018	\$ 158,612,265

*Sensitivity of the total OPEB liability to changes in the discount rate* – The following presents the total OPEB liability of the Board, as well as what the Board’s total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (3.10%) or 1-percentage-point higher (5.10%) than the current discount rate:

	1.0% Decrease (3.10%)	Current Discount Rate (4.10%)	1.0% Increase (5.10%)
Total OPEB liability	\$ 183,952,950	\$ 158,612,265	\$ 138,332,446

*Sensitivity of the total OPEB liability to changes in the healthcare cost trend rates* – The following presents the total OPEB liability of the Board, as well as what the Board’s total OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current healthcare trend rates:

	1.0% Decrease (6.00%)	Current Healthcare Cost Trend Rate (7.00%)	1.0% Increase (8.00%)
Total OPEB liability	\$ 138,545,322	\$ 158,612,265	\$ 183,379,817

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**8. Other Post-Employment Benefits (continued)**

*OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB*

For the year ended December 31, 2018, the Board recognized OPEB expense of \$7,044,502. At December 31, 2018, the Board reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
	<u>                    </u>	<u>                    </u>
Changes of assumptions or other inputs	\$ -	\$ 12,047,631
Total	<u>\$ -</u>	<u>\$ 12,047,631</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

2019	\$ (4,015,878)
2020	(4,015,878)
2021	(4,015,875)
	<u>\$ (12,047,631)</u>

**Schedule of Changes in Total OPEB Liability and Related Ratios  
For the Year Ended December 31, 2018**

<b>Total OPEB Liability</b>	
Service cost	\$ 5,134,251
Interest	5,926,129
Changes of benefit terms	-
Differences between expected and actual experience	-
Changes of assumptions or other inputs	(16,063,510)
Benefit payments (employer)	(7,043,121)
<b>Net change in total OPEB liability</b>	<u>(12,046,251)</u>
<b>Total OPEB liability - beginning</b>	<u>170,658,516</u>
<b>Total OPEB liability - ending (a)</b>	<u>\$ 158,612,265</u>
Covered-employee payroll	\$ 50,679,697
Net OPEB liability as a percentage of covered payroll	312.97%

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS (Continued)

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### 8. Other Post-Employment Benefits (continued)

#### Schedule of Changes in Net OPEB Liability and Related Ratios (continued)

##### Notes to Schedule:

This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Information is presented using measurement date which is the same as the fiscal year end.

No assets are accumulated in a trust to pay related benefits.

*Benefit Changes:* There were no changes of benefit terms for the year ended June 30, 2018.

*Changes of Assumptions or other inputs:* Changes of assumptions and other inputs reflect the changes in the discount rate each period. The following are the discount rates used in each period:

End of FY2018:	4.10%
Beginning of FY2018:	3.44%

### 9. Commitments

#### A. Capital Improvements

At December 31, 2018, the Board's budget for its ten-year capital improvements program totaled approximately \$3 billion, which includes \$166.7 million in capital expenditures for the year ending December 31, 2019 and provides for the following activities:

- Continue Joint Infrastructure Recovery Road in conjunction with City of New Orleans Department of Public Works;
- Comply with regulatory requirements under the Sewer Consent Decree;
- Complete second tower of Water Hammer project;
- Participate in drainage system improvements in coordination with SELA Program;
- Initiate Automated Meter Infrastructure project.

Due to certain regulatory and legislative changes, additional capital improvements will probably be required. Future capital improvement program expenditures may require the issuance of additional debt depending on the amount and timing of expenditures. As of December 31, 2018, the Board has committed or appropriated \$9,975,167 in investments for use in future capital projects and has \$21,245,567 of cash and cash equivalents restricted for future capital projects.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**9. Commitments (continued)**

**B. Self-insurance**

The Board is self-insured for general liability, workers' compensation, and hospitalization benefits and claims. Settled claims have not exceeded excess coverage in any of the past three fiscal years. Hospitalization benefits are charged to payroll related expense.

General liability claims are segregated internally by "claims" and "suits" depending on the scope and type of claim and are handled by the Office of the Special Counsel and Administrative Services. Individual general liability losses have ranged from \$100 to \$7,500,000, illustrating the volatility of this exposure. The claims expense (recovery) provision for 2018 and 2017 amounted to (\$10,544,357) and \$41,847,195, respectively.

Worker's compensation expense provision for 2018 and 2017 amounted to \$4,228,002 and \$3,111,359, respectively.

The medical claims for our self-insured health plan are administered by "The Health Plan," our third party administrator. The Board's expense provision in excess of employee contributions for 2018 and 2017 was \$21,562,359 and 19,160,641, respectively, and is included in payroll related expenses.

Changes in the claims payable amount are as follows (health payments are reflected net):

	2018		2017
Beginning of Year	\$ 59,160,395	\$	17,204,771
Current Year Claims and Estimate Change	15,246,004		64,029,192
Claim Payments	(25,983,657)		(22,073,568)
End of Year	\$ 48,422,742	\$	59,160,395

The composition of claims payable is as follows:

	2018		2017
Short-term:			
Workers' compensation	\$ 2,129,709	\$	1,859,956
Health insurance	2,225,002		2,197,500
Total short-term	4,354,711		4,057,456
Long-term:			
Workers' compensation	757,437		1,236,344
General liability	43,310,594		53,866,595
Total long-term	44,068,031		55,102,939
Total	\$ 48,422,742	\$	59,160,395

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS (Continued)

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### 9. Commitments (continued)

#### C. Regulatory Matters

The Sewer System Evaluation and Rehabilitation Program (SSERP) was initially estimated to cost the Board \$408.2 million by the original Consent Decree with an end date of 2015. However, the Board has negotiated, and continues to negotiate with U.S. Environmental Protection Agency (EPA), extensions beyond the original Consent Decree deadline. Consequently, the original Consent Decree has been modified to currently provide an end date of October 2025.

The Board participates in a number of federal programs which are governed by various rules and regulations. Costs charged to the respective grant programs are subject to audit and adjustment by the grantor agencies; therefore, to the extent that the Board has not complied with the rules and regulations governing the grants, refunds of any money received and the collectability of any related receivable as of December 31, 2018 might be impaired. In management's opinion, there are no significant contingent liabilities relating to compliance with the rules and regulations governing state and federal grants; therefore, no provision has been recorded in the accompanying financial statements for such contingencies. Audits of prior years have not resulted in any significant disallowed costs or refunds. Any costs that would be disallowed would be recognized in the period agreed upon by the grantor agency and the Board.

### 10. Deferred Compensation Plan

The Board offers its employees a deferred compensation plan created in accordance with Internal Revenue Code Section 457. This plan, available to all employees, permits them to defer a portion of their salary until future years. The deferred compensation is not available to employees until termination, retirement, death, or unforeseeable emergency. All amounts of compensation deferred under the plan, all property, and rights purchased with those amounts, and all income attributable to those amounts, property or rights are held in trust for the employees, therefore the assets of the plan are not included in these financial statements.

### 11. Budgets

Operating and capital expenditure budgets are adopted by the Board on a basis consistent with accounting principles generally accepted in the United States. While not legally required, this budgetary information is employed as a management control device during the year. Comparison between actual and budgeted expenses is not a required presentation for an Enterprise Fund.

### 12. Property Taxes

Property taxes are levied by the City of New Orleans. Taxes on real and personal property attach as an enforceable lien on the property as of January 1. Taxes are levied on January 1, payable on January 1, and delinquent on February 1.

## SEWERAGE AND WATER BOARD OF NEW ORLEANS

### NOTES TO FINANCIAL STATEMENTS (Continued)

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#### **12. Property Taxes (continued)**

The assessed value of the property is determined by an elected Assessor. The assessed value for 2018 and 2017 was \$3,799,114,380 and 3,789,022,670, respectively. The combined tax rate dedicated for the Board for the years ended December 31, 2018 and 2017 was \$16.43 per \$1,000 of assessed valuation. These dedicated funds are available for operations, maintenance, construction, and extension of the drainage system (except for subsurface systems).

#### **13. Tax Abatement Agreement**

The local government is subject to certain property tax abatements granted by the Louisiana State Board of Commerce and Industry (the "State Board"), a state entity governed by board members representing major economic groups and gubernatorial appointees. Abatements to which the government may be subject include those issued for property taxes under the Restoration Tax Abatement Program ("RTAP"). For the year ending December 31, 2018, the government participated in the Restoration Tax Abatement Program.

Under the RTAP, as authorized by Article 7, Section 21(H) of the Louisiana Constitution and Louisiana Revised Statutes 47:4311, companies that expand, restore, improve or develop an existing structure or structures in a downtown, historic, or economic development district can apply to the State Board and the local governing authority for a property tax exemption. The exemptions are granted for a 5-year term and are renewable for an additional 5-year term upon the approval of the State Board and the local governing authority. The property tax abatements have resulted in reductions of property taxes, which the tax assessor administers as a temporary reduction in the assessed value of the property involved. The abatement agreements stipulate a percentage reduction of property taxes, which can be as much as 100 percent. The local government may recapture abated taxes if a company fails to expand facilities or otherwise fail to fulfill its commitments under the agreement.

During 2018, the City Council of the City of New Orleans approved tax abatement projects with a total investment value of \$8,815,317 of which \$859,622 was for the Board.

#### **14. Segment Information**

The Board issued revenue bonds to finance its water and sewerage departments which operate the Board's water and sewerage treatment plants and distribution and collection systems. These bonds are accounted for in a single fund; however, investors in the revenue bonds rely solely on the revenue generated by the individual activities for repayment.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**14. Segment Information (continued)**

Summary financial information for these departments as of and for the years ended December 31 is as follows:

	<b>Condensed Statements of Net Position</b>			
	<b>Water</b>		<b>Sewer</b>	
	<b>2018</b>	<b>(Restated) 2017</b>	<b>2018</b>	<b>(Restated) 2017</b>
<b>Assets:</b>				
Current unrestricted assets	\$ 65,037,267	\$ 63,813,646	\$ 77,056,592	\$ 113,547,412
Restricted assets	28,234,279	72,808,009	40,471,502	38,430,565
Other assets	7,450,374	12,262,715	17,965	17,965
Property, plant and equipment	615,022,462	551,884,397	1,088,136,124	1,045,224,045
Total assets	<u>715,744,382</u>	<u>700,768,767</u>	<u>1,205,682,183</u>	<u>1,197,219,987</u>
Deferred outflows of resources:	15,080,978	4,511,832	17,847,392	7,547,612
Total assets and deferred outflows	<u>\$ 730,825,360</u>	<u>\$ 705,280,599</u>	<u>\$ 1,223,529,575</u>	<u>\$ 1,204,767,599</u>
<b>Liabilities:</b>				
Current	\$ 52,809,779	\$ 54,049,598	\$ 52,746,080	\$ 41,352,658
Current liabilities payable from restricted assets	5,183,196	4,724,507	14,624,635	16,030,513
Noncurrent liabilities	329,238,177	324,673,347	365,314,515	371,867,597
Total liabilities	<u>387,231,152</u>	<u>383,447,452</u>	<u>432,685,230</u>	<u>429,250,768</u>
Deferred inflows of resources:	5,884,650	622,656	5,884,650	622,656
<b>Net position:</b>				
Net investment in capital assets	411,583,789	388,634,912	860,979,966	801,653,793
Restricted	16,805,167	16,808,027	29,175,408	29,730,016
Unrestricted	(90,679,398)	(84,232,448)	(105,195,679)	(56,489,634)
Total net position	<u>337,709,558</u>	<u>321,210,491</u>	<u>784,959,695</u>	<u>774,894,175</u>
Total liabilities, deferred inflows, and net position	<u>\$ 730,825,360</u>	<u>\$ 705,280,599</u>	<u>\$ 1,223,529,575</u>	<u>\$ 1,204,767,599</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

**14. Segment Information (continued)**

	<b>Condensed Statements of Revenues, Expenses, and Changes in Net Position</b>			
	<b>Water</b>		<b>Sewer</b>	
	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2017</b>
Service charges, pledged against bonds	\$ 92,518,944	\$ 92,469,196	\$ 115,777,622	\$ 111,883,028
Depreciation expense	(12,349,399)	(12,216,937)	(26,744,088)	(23,620,139)
Other operating expenses	(94,075,558)	(88,030,009)	(95,538,207)	(71,439,888)
Operating income (loss)	<u>(13,906,013)</u>	<u>(7,777,750)</u>	<u>(6,504,673)</u>	<u>16,823,001</u>
Nonoperating revenues (expenses):				
Investment earnings	1,723,942	1,923,464	1,922,205	2,109,401
Other	1,498,085	(3,455,197)	2,517,871	(4,857,483)
Interest expense	(1,305,859)	(1,660,954)	(1,770,690)	(1,731,807)
Total nonoperating revenues (expenses)	<u>1,916,168</u>	<u>(3,192,687)</u>	<u>2,669,386</u>	<u>(4,479,889)</u>
Capital contributions	<u>28,488,912</u>	<u>24,053,899</u>	<u>13,900,807</u>	<u>2,411,782</u>
Change in net position	16,499,067	13,083,462	10,065,520	14,754,894
Beginning net position	321,210,491	337,110,237	774,894,175	792,100,836
Change in accounting principle	-	(28,983,208)	-	(31,961,555)
Ending net position	<u>\$ 337,709,558</u>	<u>\$ 321,210,491</u>	<u>\$ 784,959,695</u>	<u>\$ 774,894,175</u>

	<b>Condensed Statements of Cash Flows</b>			
	<b>Water</b>		<b>Sewer</b>	
	<b>2018</b>	<b>2017</b>	<b>2018</b>	<b>2017</b>
Net cash provided by (used in):				
Operating activities	\$ (13,855,629)	\$ 25,093,695	\$ 36,460,285	\$ 26,141,957
Noncapital financing activities	343,336	264,874	330,010	329,395
Capital and related financing activities	(24,098,561)	(83,441,074)	(58,767,363)	(92,333,117)
Investing activities	<u>1,984,794</u>	<u>2,523,821</u>	<u>2,048,676</u>	<u>2,314,561</u>
Net increase	(35,626,060)	(55,558,684)	(19,928,392)	(63,547,204)
Cash and cash equivalents:				
Beginning of year	96,774,062	152,332,746	91,278,866	154,826,070
End of year	<u>\$ 61,148,002</u>	<u>\$ 96,774,062</u>	<u>\$ 71,350,474</u>	<u>\$ 91,278,866</u>

## SEWERAGE AND WATER BOARD OF NEW ORLEANS

### NOTES TO FINANCIAL STATEMENTS (Continued)

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#### 15. Natural Disaster

During the years ended, December 31, 2018 and 2017, the Board has cumulatively received approximately \$459.0 million and \$367.0 million, respectively, of cash reimbursements from the Federal Emergency Management Agency (FEMA). Included in accounts receivable as of December 31, 2018 and 2017 are \$280,906 and \$1,532,795, respectively, of reimbursements due from FEMA under the Disaster Grants program. Eligible FEMA grants totaling in excess of \$812.3 million are in various stages of the approval process and include amounts for system repairs, building repairs, vehicle and equipment repairs, and replacements, temporary power, supplies and other costs.

On June 29, 2007, the Board entered into a Cooperative Endeavor Agreement with the State of Louisiana, City of New Orleans, Louisiana, and the Louisiana Public Facilities Authority (LPFA). The LPFA agreed to issue its bonds to provide the cash capital investment to pay for capital improvements of the City of New Orleans and the Board. The establishment of the construction fund permits the Board and City of New Orleans to publicly bid contracts that are subject to a Project Worksheet that has been obligated by FEMA or for which an award letter has been received and encumber such amounts. The State of Louisiana, City of New Orleans, and Sewerage and Water Board agree that as FEMA pays any reimbursement amounts related to projects for which disbursements have been made, or the City or the Sewerage and Water Board receives monies related to the hazard mitigation grant program for which disbursements have been made from the construction fund; the full amount of such projects shall be deposited in the construction fund and used to fund additional projects until all City of New Orleans and Sewerage and Water Board improvements are completed. The total amount made available to the Board under the agreement was \$100,000,000. The agreement also permits disbursements from the construction fund for projects with a Project Worksheet that have not been obligated by FEMA, and as a result, will not be reimbursed by FEMA. The Board is not required to reimburse the construction fund for these unobligated projects. At December 31, 2018 and 2017, the Board had an outstanding obligation under the agreement of \$11,221,710 and \$13,241,146 included as a liability in due to other governments on the statements of net position, which represent amounts not yet reimbursed by FEMA for obligated projects and deposited back into the construction fund.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

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**16. Change in Accounting Principles**

The GASB issued Statement 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* in June 2015. This Statement replaces the requirements of Statement 45 and requires governments to report a liability on the face of the financial statements for the OPEB that they provide. Statement 75 requires governments in all types of OPEB plans to present more extensive note disclosures and required supplementary information (RSI) about their OPEB liabilities. Among the new note disclosures is a description of the effect on the reported OPEB liability of using a discount rate and a healthcare cost trend rate that are one percentage point higher and one percentage point lower than assumed by the government. The new RSI includes a schedule showing the causes of increases and decreases in the OPEB liability and a schedule comparing a government's actual OPEB contributions to its contribution requirements. The requirements of this Statement are effective for financial statements for reporting periods beginning after June 15, 2017. The Board implemented GASB 75 in the financial statements for the year ended December 31, 2018.

The Board also implemented Statement 75 retrospectively effective December 31, 2017. The impact is as follows:

Previously reported net position as of December 31, 2017	\$ 2,263,264,565
Adjustment as a result of the implementation of GASB Statement No. 75	(94,273,121)
Net position as of December 31, 2017, as restated	<u>\$ 2,168,991,444</u>

Other post-employment benefits expense for the year ended December 31, 2017 is not restated and the disclosures for other post-employment benefits in Note 9 are not comparative because detailed information for the year ended December 31, 2017 is not available. The actuarial valuation performed under GASB Statement No. 75 is for the most recent fiscal year only.

The GASB issued Statement 82, *Pension Issues – An Amendment of GASB Statements No. 67, No. 68 and No. 73* in March 2016. This Statement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. The majority of the requirements of this Statement are effective for reporting periods beginning after June 15, 2017. The Board implemented GASB 82 in the financial statements for the year ended December 31, 2018.

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS (Continued)

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### **17. Recent Accounting Pronouncements**

GASB Statement No. 84, *Fiduciary Activities*. This Statement establishes criteria for identifying fiduciary activities of all state and local governments. The focus of the criteria generally is on (1) whether a government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. Separate criteria are included to identify fiduciary component units and postemployment benefit arrangements that are fiduciary activities. An activity meeting the criteria should be recorded in a fiduciary fund in the basic financial statements. Governments with activities meeting the criteria should present a statement of fiduciary net position and a statement of changes in fiduciary net position. An exception to that requirement is provided for a business-type activity that normally expects to hold custodial assets for three months or less. This Statement describes four fiduciary funds that should be recorded, if applicable: (1) pension (and other employee benefit) trust funds, (2) investment trust funds, (3) private-purpose trust funds, and (4) custodial funds. The requirements of this Statement are effective for reporting periods beginning after December 15, 2018. Therefore, if applicable, the Board will implement this guidance in 2019.

GASB Statement No. 87, *Leases*. The objective of this Statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. This Statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. This is a significant change in accounting principles and may impact the net position of the Board. The requirements of this Statement are effective for reporting periods beginning after December 15, 2019. Therefore, as applicable, the Board will implement this guidance in 2020.

GASB Statement No. 89, *Accounting for Interest Costs Incurred before the End of a Construction Period*. The Statement objectives include (1) enhancing the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and (2) simplifying accounting for interest costs incurred before the end of a construction period. The requirements of this Statement are effective for reporting periods beginning after December 15, 2019. The Board will implement this guidance in 2020.

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS (Continued)

### **18. Current Operating Environment**

The Board's Drainage System experienced a significant increase in expenditures in 2017 and into 2018 as a result of significant flooding in the New Orleans area in 2017 and the increase in the estimate for general liability claims in 2017 which has negatively impacted the Drainage System's liquidity. The Sewerage System has made advances to the Drainage System to pay for expenditures of the Drainage System. The Board is considering ways to increase revenues for the Drainage System including additional tax revenues, increased drainage fees, applying for new government grants, and the apportionment of revenues from the Sewerage and Water Systems to the Drainage System. These new sources of revenue are intended to increase revenues to a level that will cover expenditures and begin to allow the repayment of advances from the Sewerage System to the Drainage System. However, if these revenue levels are not achieved, the Board will further deplete its cash and investment levels. The Board's management and Board of Directors are working to review and secure more consistent revenue sources for drainage operations as discussed in Note 21.

### **19. Examination by Federal Agency**

During 2017, the Board was notified by the Office for Inspector General (the OIG) of the U.S. Department of Homeland Security that the OIG would be conducting an audit of FEMA Public Assistance Grant Funds awarded to the Board for the period from August 29, 2005 to September 30, 2017. The objective of the audit is to determine whether the Board accounted for and expended FEMA funds according to Federal regulations and FEMA guidelines. As of May 30, 2019, the audit is listed as an on-going project by the OIG, and results of this audit have not being finalized or communicated to the Board.

### **20. Revenue Bonds Debt Service Coverage (Unaudited)**

Each of the General Bond Resolutions governing the Series 2014 Bonds and the Series 2015 Bonds have certain covenant requirements regarding net revenue available for debt service. The net revenue available for debt service in the Board's debt service coverage calculations presented in Section III, Statistical Information (Unaudited), is increased in the amount of \$8,916,109 related to its water bonds and \$9,947,600 related to its sewer bonds, as detailed below. These amount are opined to be extraordinary, non-recurring and non-continuing expenses by a Qualified Independent Consultant (QIC) as provided for in each respective General Bond Resolutions.

	<u>Water</u>	<u>Sewer</u>
Operating expenses related to August 2017 flood	\$ 21,205	\$ 35,342
Winter storm Inga	4,026,039	-
Provision for doubtful accounts	4,868,865	9,912,258
Total extraordinary expenses	<u>\$ 8,916,109</u>	<u>\$ 9,947,600</u>

The definition of extraordinary used by the QIC varies from that used in the preparation of the financial statements under generally accepted accounting principles. It should be noted that Revenues and Operating Expenses as reported in the schedules in Section III are consistent with the terms of the General Bond Resolutions and may differ from the amounts reported in the financial statements.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS**  
**(Continued)**

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**20. Revenue Bonds Debt Service Coverage (Unaudited) (continued)**

In addition, for the water bonds, the net revenue available for debt service in the Board's debt service coverage calculation presented in Section III, Statistical Information (Unaudited) is increased by \$8,927,277 in estimated additional revenues in accordance with Section 7.01(c) of the General Water Revenue Bond Resolution derived from a rate increase that went into effect January 1, 2019.

The Board is in compliance with these particular covenants after consideration of the above, as provided for in the respective General Bond Resolutions.

**21. Subsequent Event**

Management has evaluated subsequent events through the date that the financial statements were available to be issued, June 28, 2019, and determined that the following item require disclosure. No events occurring after this date have been evaluated for inclusion in these financial statements.

In May 2019, in an effort to replenish funding for the Board, Mayor LaToya Cantrell led the charge to obtain \$50 million in one-time funding to support various operations and capital needs of the Board. In addition, the Mayor was able to secure ongoing funding under House Bills 522, 617 & 43 which is anticipated to result in \$20 - \$26 million in recurring tax revenue.

**REQUIRED SUPPLEMENTARY INFORMATION**

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**Required Supplementary Information Under GASB Statement No. 67, 68, and 71**  
**For the years ended December 31, 2018 and 2017**

**SCHEDULE OF NET PENSION LIABILITY**

Actuarial Valuation Date December 31	Total Pension Liability	Plan Fiduciary Net Position	Employer's Net Pension Liability	Plan Fiduciary Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a Percentage of Payroll
2018	\$ 339,153,248	\$ 215,279,783	\$ 123,873,465	63.48%	\$ 50,679,697	244.42%
2017	318,218,035	235,284,317	82,933,718	73.94%	41,822,648	198.30%
2016	305,105,919	224,356,261	80,749,658	73.53%	35,363,156	228.34%
2015	299,395,091	222,427,527	76,967,564	74.29%	33,672,902	228.57%
2014	296,244,723	236,556,671	59,688,052	79.85%	31,378,001	190.22%
2013	290,919,481	234,358,565	56,560,916	80.56%	29,706,715	190.40%

**Note to schedule:**

Until a full 10-year trend is compiled, governments should present information for those years for which information is available. History prior to 2013 is not shown in this report but is maintained in the records of the employer.

**SCHEDULE OF EMPLOYER CONTRIBUTIONS**

Year Ended	Actuarially Determined Contribution	Contributions in Relation to the Actuarial Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll Contribution	Contributions as a % of Covered Payroll
2018	\$ 8,435,598	\$ 8,419,441	\$ 16,157	\$ 50,679,697	16.61%
2017	10,545,867	7,239,467	3,306,400	41,822,648	17.31%
2016	11,024,398	6,407,201	4,617,197	35,363,156	18.12%
2015	10,799,993	6,506,652	4,293,341	33,672,902	19.32%
2014	11,171,823	6,055,890	5,115,933	31,378,001	19.30%
2013	11,086,546	5,946,614	5,139,932	29,706,715	20.02%
2012	9,127,658	6,287,658	2,840,000	29,074,529	21.63%
2011	9,815,606	5,564,936	4,250,670	29,774,937	18.69%
2010	8,358,739	5,140,096	3,218,643	29,670,378	17.32%
2009	7,591,495	5,188,175	2,403,320	39,947,906	12.99%

**Note to schedule:**

Valuation Date: January 1, 2018

Actuarially determined contribution rates are calculated as of January 1, 2018, which is the most recent valuation date prior to the end of the fiscal year in which contributions are reported.

Actuarial cost method	Entry age
Amortization method	Level dollar, open
Remaining amortization period	30 years
Asset valuation method	7-year smoothed market
Inflation	2.5%
Salary increases	5.0%, including inflation
Investment rate of return	7.0%, net of pension plan investment expense, including inflation
Retirement age	Earliest eligibility age, plus one year if under age 55
Mortality	1971 Group Annuity Mortality Table for males and females

**SCHEDULE OF INVESTMENT RETURNS**

Year Ended	Net Money-Weighted Rate of Return
2018	-3.31%
2017	10.52%
2016	5.42%
2015	-1.79%
2014	4.94%

(Continued)

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**Required Supplementary Information Under GASB Statement No. 67, 68, and 71**  
**For the years ended December 31, 2018 and 2017**  
(continued)

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY**

	2018	2017	2016	2015	2014
<b>Total Pension Liability</b>					
Service cost	\$ 4,354,989	\$ 3,797,316	\$ 3,030,912	\$ 2,788,621	\$ 3,417,599
Interest on total pension liability	21,763,800	21,357,414	20,957,657	20,737,131	20,364,364
Effect of plan changes	-	-	-	-	-
Effect of economic/demographic gains or (losses)	(5,689,086)	9,734,775	834,712	(1,978,038)	(1,721,210)
Effect of assumption changes or inputs	23,596,233	-	-	-	-
Benefit payments	(23,323,178)	(21,777,389)	(19,112,455)	(18,397,344)	(16,735,511)
Other	232,455	-	-	-	-
<b>Net change in total pension liability</b>	<u>20,935,213</u>	<u>13,112,116</u>	<u>5,710,826</u>	<u>3,150,370</u>	<u>5,325,242</u>
<b>Total pension liability, beginning</b>	<u>318,218,035</u>	<u>305,105,919</u>	<u>299,395,093</u>	<u>296,244,723</u>	<u>290,919,481</u>
<b>Total pension liability, ending (a)</b>	<u>339,153,248</u>	<u>318,218,035</u>	<u>305,105,919</u>	<u>299,395,093</u>	<u>296,244,723</u>
<b>Plan Fiduciary Net Position</b>					
Employer contributions	8,419,441	7,239,467	6,407,201	6,506,652	6,055,890
Employee contributions	2,535,027	2,139,705	2,063,122	1,847,259	1,535,723
Investment income net of investment expenses	(7,868,279)	23,326,273	12,570,866	(4,085,711)	11,342,004
Benefit payments	(23,323,178)	(21,777,389)	(19,112,455)	(18,397,344)	(16,735,511)
Administrative expenses	-	-	-	-	-
Other	232,455	-	-	-	-
<b>Net change in plan fiduciary net position</b>	<u>(20,004,534) #</u>	<u>10,928,056 #</u>	<u>1,928,734 #</u>	<u>(14,129,144)</u>	<u>2,198,106</u>
<b>Plan fiduciary net position, beginning</b>	<u>235,284,317</u>	<u>224,356,261</u>	<u>222,427,527</u>	<u>236,556,671</u>	<u>234,358,565</u>
<b>Plan fiduciary net position, ending (b)</b>	<u>\$ 215,279,783</u>	<u>\$ 235,284,317</u>	<u>\$ 224,356,261</u>	<u>\$ 222,427,527</u>	<u>\$ 236,556,671</u>
<b>Board's net pension liability, ending = (a) - (b)</b>	<u>\$ 123,873,465</u>	<u>\$ 82,933,718</u>	<u>\$ 80,749,658</u>	<u>\$ 76,967,566</u>	<u>\$ 59,688,052</u>
<b>Plan fiduciary net position as a % of total pension liability</b>	63.48%	73.94%	73.53%	74.29%	79.85%
<b>Covered payroll</b>	\$ 50,679,697	\$ 41,822,648	\$ 35,363,156	\$ 33,672,902	\$ 31,378,001
<b>Board's net pension liability as a % of covered payroll</b>	244.42%	198.30%	228.34%	228.57%	190.22%

**Notes to Schedules:**

1. This schedule is prepared using the optional format of combining the required schedules in Paragraph Nos. 46.a. and 46.b. of GASB No. 68. Until a full 10-year trend is compiled, governments should present information for those years for which information is available. Amounts recognized in the fiscal year represent changes between the current and prior measurement dates. History prior to 2015 is not shown in this report but is maintained by the employer.
2. Information is presented using a December 31, 2018 measurement date as permitted under Paragraph No. 20 of GASB No. 68.
3. Assumed retirement age updated and mortality updated to gender distinct 1994 Uninsured Pensioner (UP-94) mortality table, projected to 2002 using Scale AA.
4. City annuity and other transfers in; prior to 2018, these amounts were combined with "Benefit payments, including refunds of employee contributions".
- 5 Total compensation (not just pensionable compensation, if different) based on census used in the valuation per Q/A No. 106 of the *Guide to Implementation of GASB Statement 68*.

See accompanying notes to financial statements.

SEWERAGE AND WATER BOARD OF NEW ORLEANS  
 Required Supplementary Information Under GASB Statement No. 75  
 For the year ended December 31, 2018

SCHEDULE OF CHANGES IN TOTAL OPEB LIABILITY AND RELATED RATIOS

<u>Financial Statement Reporting Date</u>	<u>Measurement Date</u>	<u>Service Cost</u>	<u>Interest</u>	<u>Changes of Benefit Terms</u>	<u>Difference Between Expected and Actual Experience</u>	<u>Changes of assumptions or other inputs</u>	<u>Benefit Payments (employer)</u>	<u>Net Change in Total OPEB Liability</u>	<u>Total OPEB Liability - Beginning</u>	<u>Total OPEB Liability - Ending</u>	<u>Covered Payroll</u>	<u>Total OPEB Liability as a Percentage of Covered Payroll</u>
12/31/18	12/31/18	\$ 5,134,251	\$ 5,926,129	\$ -	\$ -	\$ (16,063,510)	\$ (7,043,121)	\$ (12,046,251)	\$ 170,658,516	\$ 158,612,265	\$ 50,679,697	312.97%

**Notes to Schedule:**

1. This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.
2. There are no assets accumulated in a trust that meets the criteria of paragraph 4 of GASB 75 for this OPEB plan.
3. *Benefit Changes.* There were no changes of benefit terms for the year ended December 31, 2018.
4. *Changes of Assumptions.* Changes of assumptions and other inputs reflect the changes in the discount rate each period. The following are the discount rates using in each period:
 

End of year 2018	4.10%
Beginning of year 2018	3.44%

**SUPPLEMENTARY INFORMATION**

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF NET POSITION BY DEPARTMENT**  
**ENTERPRISE FUND**  
**As of December 31, 2018 and 2017**

	Water System		Sewerage System		Drainage System		Total	
	2018	2017 (Restated)	2018	2017 (Restated)	2018	2017 (Restated)	2018	2017 (Restated)
<b>ASSETS AND DEFERED OUTFLOWS OF RESOURCES</b>								
<b>Current assets:</b>								
Cash and cash equivalents	\$ 31,321,022	\$ 17,561,011	\$ 30,935,972	\$ 52,905,301	\$ 1,382,352	\$ 11,545,514	\$ 63,639,346	\$ 82,011,826
Accounts receivable:								
Customers, net of allowance	19,919,941	13,896,627	20,463,721	17,370,001	-	-	40,383,662	31,266,628
Taxes	-	-	-	-	6,493,108	9,652,824	6,493,108	9,652,824
Interest							-	-
Grants	14,749,165	40,629,167	6,052,105	13,761,561	6,009,076	9,924,583	26,810,346	64,315,311
Miscellaneous	258,425	330,674	1,523,141	270,312	3,949,877	1,443,778	5,731,443	2,044,764
Due from (to) other internal departments	(3,872,868)	(11,573,807)	16,500,755	27,544,854	(10,632,887)	(15,971,047)	1,995,000	-
Inventory of supplies	2,390,127	2,530,089	1,464,006	1,410,080	1,034,569	1,039,912	4,888,702	4,980,081
Prepaid expenses	271,455	439,885	116,892	285,303	148,832	233,048	537,179	958,236
Total unrestricted and undesignated	<u>65,037,267</u>	<u>63,813,646</u>	<u>77,056,592</u>	<u>113,547,412</u>	<u>8,384,927</u>	<u>17,868,612</u>	<u>150,478,786</u>	<u>195,229,670</u>
Total current assets	<u>65,037,267</u>	<u>63,813,646</u>	<u>77,056,592</u>	<u>113,547,412</u>	<u>8,384,927</u>	<u>17,868,612</u>	<u>150,478,786</u>	<u>195,229,670</u>
<b>Noncurrent assets:</b>								
<b>Restricted cash, cash equivalents, and investments</b>								
Cash and cash equivalents restricted for capital projects	10,648,879	55,238,711	10,579,291	7,974,833	17,397	4,320,102	21,245,567	67,533,646
Health insurance reserve	780,233	761,271	716,803	725,716	699,598	710,513	2,196,634	2,197,500
Debt service reserve	16,805,167	16,808,027	29,175,408	29,730,016	62,010	68,297	46,042,585	46,606,340
Total restricted cash, cash equivalents, and investments	<u>28,234,279</u>	<u>72,808,009</u>	<u>40,471,502</u>	<u>38,430,565</u>	<u>779,005</u>	<u>5,098,912</u>	<u>69,484,786</u>	<u>116,337,486</u>
<b>Property, plant and equipment</b>								
Property, plant and equipment	970,675,961	898,188,980	1,396,493,756	1,329,691,358	1,875,879,548	1,767,843,572	4,243,049,265	3,995,723,910
Less: accumulated depreciation	355,653,499	346,304,583	308,357,632	284,467,313	370,176,057	345,859,217	1,034,187,188	976,631,113
Property, plant, and equipment, net	<u>615,022,462</u>	<u>551,884,397</u>	<u>1,088,136,124</u>	<u>1,045,224,045</u>	<u>1,505,703,491</u>	<u>1,421,984,355</u>	<u>3,208,862,077</u>	<u>3,019,092,797</u>
<b>Other assets</b>								
Funds from/for customer deposits	7,427,424	12,239,765	-	-	-	-	7,427,424	12,239,765
Deposits	22,950	22,950	17,965	17,965	10,400	10,400	51,315	51,315
Total other assets	<u>7,450,374</u>	<u>12,262,715</u>	<u>17,965</u>	<u>17,965</u>	<u>10,400</u>	<u>10,400</u>	<u>7,478,739</u>	<u>12,291,080</u>
Total noncurrent assets	<u>650,707,115</u>	<u>636,955,121</u>	<u>1,128,625,591</u>	<u>1,083,672,575</u>	<u>1,506,492,896</u>	<u>1,427,093,667</u>	<u>3,285,825,602</u>	<u>3,147,721,363</u>
Total assets	<u>715,744,382</u>	<u>700,768,767</u>	<u>1,205,682,183</u>	<u>1,197,219,987</u>	<u>1,514,877,823</u>	<u>1,444,962,279</u>	<u>3,436,304,388</u>	<u>3,342,951,033</u>
<b>Deferred outflows of resources:</b>								
Deferred amounts related to net pension liability	15,065,730	4,492,221	15,065,730	4,492,221	15,065,730	4,492,221	45,197,190	13,476,663
Deferred loss on bond refunding	15,248	19,611	2,781,662	3,055,391	128,985	182,508	2,925,895	3,257,510
Total deferred outflows of resources	<u>15,080,978</u>	<u>4,511,832</u>	<u>17,847,392</u>	<u>7,547,612</u>	<u>15,194,715</u>	<u>4,674,729</u>	<u>48,123,085</u>	<u>16,734,173</u>
Total assets and deferred outflows of resources	<u>\$ 730,825,360</u>	<u>\$ 705,280,599</u>	<u>\$ 1,223,529,575</u>	<u>\$ 1,204,767,599</u>	<u>\$ 1,530,072,538</u>	<u>\$ 1,449,637,008</u>	<u>\$ 3,484,427,473</u>	<u>\$ 3,359,685,206</u>

(Continued)

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF NET POSITION BY DEPARTMENT, CONTINUED**  
**ENTERPRISE FUND**  
**As of December 31, 2018 and 2017**

	Water System		Sewerage System		Drainage System		Total	
	2018	2017 (Restated)	2018	2017 (Restated)	2018	2017 (Restated)	2018	2017 (Restated)
<b>LIABILITIES, DEFERRED OUTFLOWS OF RESOURCES, AND NET POSITION</b>								
<b>Current liabilities (payable from current assets):</b>								
Accounts payable	\$ 32,505,962	\$ 33,173,919	\$ 39,814,320	\$ 25,934,140	\$ 28,441,519	\$ 25,566,215	\$ 100,761,801	\$ 84,674,274
Due to City of New Orleans	842,664	556,149	-	-	-	-	842,664	556,149
Disaster Reimbursement Revolving Loan	9,116,772	8,347,355	1,687,174	4,248,077	417,764	645,714	11,221,710	13,241,146
Retainers and estimates payable	4,743,155	6,078,810	3,081,481	3,390,277	2,521,087	1,852,006	10,345,723	11,321,093
Due to other fund	56,664	97,513	26,527	45,701	33,185	56,527	116,376	199,741
Accrued salaries	471,562	553,775	284,858	243,296	236,603	324,364	993,023	1,121,435
Claims payable	1,482,000	1,381,256	1,446,390	1,345,701	1,426,321	1,330,499	4,354,711	4,057,456
Total OPEB liability, due within one year	2,347,707	-	2,347,707	-	2,347,707	-	7,043,121	-
Debt Service Assistance Fund loan payable	445,347	425,599	4,337,950	4,145,594	283,725	271,144	5,067,022	4,842,337
Advances from federal government	2,775,563	3,343,457	1,976,305	1,976,305	-	-	4,751,868	5,319,762
Other liabilities	370,090	91,765	91,075	23,567	6,294	2,880	467,459	118,212
Total Current liabilities (payable from current assets):	55,157,486	54,049,598	55,093,787	41,352,658	35,714,205	30,049,349	145,965,478	125,451,605
<b>Current liabilities (payable from restricted assets):</b>								
Accrued interest	907,571	929,454	1,742,994	1,881,177	74,671	86,253	2,725,236	2,896,884
Bonds payable	3,575,000	3,360,000	11,510,000	12,356,000	1,815,000	1,745,000	16,900,000	17,461,000
Retainers and estimates payable	700,625	435,053	1,371,641	1,793,336	-	-	2,072,266	2,228,389
Total current liabilities (payable from restricted assets):	5,183,196	4,724,507	14,624,635	16,030,513	1,889,671	1,831,253	21,697,502	22,586,273
Total current liabilities	60,340,682	58,774,105	69,718,422	57,383,171	37,603,876	31,880,602	167,662,980	148,037,878
<b>Long-term liabilities:</b>								
Claims payable	4,351,534	5,375,837	4,672,055	4,202,857	35,044,442	45,524,245	44,068,031	55,102,939
Accrued vacation and sick pay	3,884,837	3,202,218	3,702,175	3,053,065	2,106,778	1,744,841	9,693,790	8,000,124
Net pension liability	41,291,155	27,644,573	41,291,155	27,644,573	41,291,155	27,644,573	123,873,465	82,933,718
Total OPEB liability	50,523,048	56,886,172	50,523,048	56,886,172	50,523,048	56,886,172	151,569,144	170,658,516
Bonds payable, net of current maturities	210,512,552	215,128,196	226,225,449	239,189,085	5,959,049	7,848,216	442,697,050	462,165,497
Southeast Louisiana Project liability	-	-	-	-	227,139,545	201,926,585	227,139,545	201,926,585
Debt Service Assistance Fund loan payable, net of current maturities	3,749,704	4,196,586	36,552,926	40,891,845	2,387,257	2,672,341	42,689,887	47,760,772
Customer deposits	12,577,640	12,239,765	-	-	-	-	12,577,640	12,239,765
Total long-term liabilities	326,890,470	324,673,347	362,966,808	371,867,597	364,451,274	344,246,972	1,054,308,552	1,040,787,916
Total liabilities	387,231,152	383,447,452	432,685,230	429,250,768	402,055,150	376,127,574	1,221,971,532	1,188,825,794
<b>Deferred inflows of resources:</b>								
Deferred amounts related to net pension liability	1,868,773	622,656	1,868,773	622,656	1,868,773	622,656	5,606,319	1,867,968
Deferred amounts related to total OPEB liability	4,015,877	-	4,015,877	-	4,015,877	-	12,047,631	-
Total deferred inflows of resources	5,884,650	622,656	5,884,650	622,656	5,884,650	622,656	17,653,950	1,867,968
<b>Net position:</b>								
Net investment in capital assets	411,583,789	388,634,912	860,979,966	801,653,793	1,270,807,294	1,214,784,656	2,543,371,049	2,405,073,361
Restricted for debt service	16,805,167	16,808,027	29,175,408	29,730,016	62,010	68,297	46,042,585	46,606,340
Unrestricted	(90,679,398)	(84,232,448)	(105,195,679)	(56,489,634)	(148,736,566)	(141,966,175)	(344,611,643)	(282,688,257)
Total net position	337,709,558	321,210,491	784,959,695	774,894,175	1,122,132,738	1,072,886,778	2,244,801,991	2,168,991,444
Total liabilities, deferred inflows of resources, and net position	\$ 730,825,360	\$ 705,280,599	\$ 1,223,529,575	\$ 1,204,767,599	\$ 1,530,072,538	\$ 1,449,637,008	\$ 3,484,427,473	\$ 3,359,685,206

See accompanying independent auditors' report.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION BY DEPARTMENT**  
**ENTERPRISE FUND**  
**For the years ended December 31, 2018 and 2017**

	Water System		Sewerage System		Drainage System		Total	
	2018	2017	2018	2017	2018	2017	2018	2017
Operating revenues:								
Sales of water and delinquent fees	\$ 90,287,081	\$ 90,464,810	\$ -	\$ -	\$ -	\$ -	\$ 90,287,081	\$ 90,464,810
Sewerage service charges	-	-	114,614,157	111,063,719	-	-	114,614,157	111,063,719
Plumbing inspection and license fees	319,127	297,115	329,205	291,215	-	-	648,332	588,330
Other revenues	1,912,736	1,707,271	834,260	528,094	2,940,207	1,215,909	5,687,203	3,451,274
Total operating revenues	92,518,944	92,469,196	115,777,622	111,883,028	2,940,207	1,215,909	211,236,773	205,568,133
Operating Expenses:								
Power and pumping	2,530,094	3,353,409	5,425,556	3,455,301	23,918,812	29,743,813	31,874,462	36,552,523
Treatment	9,294,004	7,298,509	13,664,971	18,238,266	-	115,132	22,958,975	25,651,907
Transmission and distribution	24,912,011	20,616,130	17,666,548	15,028,132	3,951,459	765,297	46,530,018	36,409,559
Customer accounts	2,607,756	2,226,491	2,607,781	2,226,486	27,739	7,178	5,243,276	4,460,155
Customer service	2,209,330	2,049,950	2,209,324	2,068,365	57,760	99,228	4,476,414	4,217,543
Administration and general	10,227,572	8,667,448	11,972,725	8,338,645	6,053,021	7,337,611	28,253,318	24,343,704
Payroll related expenses	18,691,737	15,902,266	18,604,235	12,642,752	12,120,609	9,581,304	49,416,581	38,126,322
Maintenance of general plant	15,533,798	16,301,541	8,061,802	2,599,670	5,217,885	7,198,971	28,813,485	26,100,182
Depreciation	12,349,399	12,216,937	26,744,088	23,620,139	24,407,703	23,613,000	63,501,190	59,450,076
Provision for doubtful accounts	7,584,815	8,769,597	13,355,926	5,523,536	1,476	33,578	20,942,217	14,326,711
Provision for claims	484,441	2,844,668	1,969,339	1,318,735	(9,656,464)	41,109,418	(7,202,684)	45,272,821
Total operating expenses	106,424,957	100,246,946	122,282,295	95,060,027	66,100,000	119,604,530	294,807,252	314,911,503
Operating income (loss)	(13,906,013)	(7,777,750)	(6,504,673)	16,823,001	(63,159,793)	(118,388,621)	(83,570,479)	(109,343,370)
Non-operating revenues (expenses):								
Three-mill tax	-	-	-	-	15,504,589	15,309,309	15,504,589	15,309,309
Six-mill tax	-	-	-	-	15,576,221	16,229,098	15,576,221	16,229,098
Nine-mill tax	-	-	-	-	23,570,261	23,881,671	23,570,261	23,881,671
Two-mill tax	-	-	-	-	553	2,735	553	2,735
Other taxes	264,567	264,074	329,965	329,350	-	-	594,532	593,424
Federal noncapital grants	78,769	800	45	45	-	-	78,814	845
Interest income	1,723,942	1,923,464	1,922,205	2,109,401	142,751	244,250	3,788,898	4,277,115
Interest expense	(1,305,859)	(1,660,954)	(1,770,690)	(1,731,807)	(127,690)	(144,575)	(3,204,239)	(3,537,336)
Provision for grants	1,154,749	(3,720,071)	2,187,861	(5,186,878)	(158,969)	-	3,183,641	(8,906,949)
Total non-operating revenues	1,916,168	(3,192,687)	2,669,386	(4,479,889)	54,507,716	55,522,488	59,093,270	47,849,912
Income (expenses) before capital contributions	(11,989,845)	(10,970,437)	(3,835,287)	12,343,112	(8,652,077)	(62,866,133)	(24,477,209)	(61,493,458)
Capital contributions	28,488,912	24,053,899	13,900,807	2,411,782	57,898,037	69,870,394	100,287,756	96,336,075
Change in net position	16,499,067	13,083,462	10,065,520	14,754,894	49,245,960	7,004,261	75,810,547	34,842,617
Net position, beginning of year	321,210,491	337,110,237	774,894,175	792,100,836	1,072,886,778	1,099,210,875	2,168,991,444	2,228,421,948
Cumulative effect of change in accounting principle	-	(28,983,208)	-	(31,961,555)	-	(33,328,358)	-	(94,273,121)
Net position, beginning of year, restated	321,210,491	308,127,029	774,894,175	760,139,281	1,072,886,778	1,065,882,517	2,168,991,444	2,134,148,827
Net position, end of year	\$ 337,709,558	\$ 321,210,491	\$ 784,959,695	\$ 774,894,175	\$ 1,122,132,738	\$ 1,072,886,778	\$ 2,244,801,991	\$ 2,168,991,444

See accompanying independent auditors' report.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF PROPERTY, PLANT AND EQUIPMENT BY DEPARTMENT**  
**As of December 31, 2018 and 2017**

	<b>2018</b>			
	Water	Sewer	Drainage	Total
Real estate rights, non depreciable	\$ 3,065,632	\$ 1,949,159	\$ 8,772,766	\$ 13,787,557
Power and pumping stations - buildings	74,522,290	53,795,104	268,286,304	396,603,698
Power and pumping stations - machinery	163,760,165	67,311,682	135,701,030	366,772,877
Distribution systems	362,282,823	-	-	362,282,823
Sewerage collection	-	742,695,414	-	742,695,414
Canals and subsurface drainage	-	-	916,810,550	916,810,550
Treatment plants	-	207,077,447	-	207,077,447
Connections and meters	75,358,211	31,556,254	-	106,914,465
Power transmission	10,727,059	13,079,397	13,555,173	37,361,629
General plant and buildings	142,007,198	107,490,272	84,038,828	333,536,298
<b>Total property, plant and equipment in service</b>	<b>831,723,378</b>	<b>1,224,954,729</b>	<b>1,427,164,651</b>	<b>3,483,842,758</b>
Construction in progress	138,952,583	171,539,027	448,714,897	759,206,507
<b>Total property, plant and equipment</b>	<b>970,675,961</b>	<b>1,396,493,756</b>	<b>1,875,879,548</b>	<b>4,243,049,265</b>
Accumulated depreciation	355,653,499	308,357,632	370,176,057	1,034,187,188
<b>Net property, plant and equipment</b>	<b>\$ 615,022,462</b>	<b>\$ 1,088,136,124</b>	<b>\$ 1,505,703,491</b>	<b>\$ 3,208,862,077</b>
	<b>2017</b>			
	Water	Sewer	Drainage	Total
Real estate rights, non depreciable	\$ 2,934,901	\$ 1,925,647	\$ 8,772,766	\$ 13,633,314
Power and pumping stations - buildings	72,165,740	52,660,008	267,802,319	392,628,067
Power and pumping stations - machinery	157,622,824	62,827,545	132,507,236	352,957,605
Distribution systems	318,178,664	-	-	318,178,664
Sewerage collection	-	616,199,180	-	616,199,180
Canals and subsurface drainage	-	-	894,121,872	894,121,872
Treatment plants	-	206,081,699	-	206,081,699
Connections and meters	74,799,449	30,661,835	-	105,461,284
Power transmission	10,727,059	12,208,991	13,555,173	36,491,223
General plant and buildings	134,114,040	98,395,924	79,388,711	311,898,675
<b>Total property, plant and equipment in service</b>	<b>770,542,677</b>	<b>1,080,960,829</b>	<b>1,396,148,077</b>	<b>3,247,651,583</b>
Construction in progress	127,646,303	248,730,529	371,695,495	748,072,327
<b>Total property, plant and equipment</b>	<b>898,188,980</b>	<b>1,329,691,358</b>	<b>1,767,843,572</b>	<b>3,995,723,910</b>
Accumulated depreciation	346,304,583	284,467,313	345,859,217	976,631,113
<b>Net property, plant and equipment</b>	<b>\$ 551,884,397</b>	<b>\$ 1,045,224,045</b>	<b>\$ 1,421,984,355</b>	<b>\$ 3,019,092,797</b>

See accompanying independent auditors' report.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF BONDS PAYABLE**  
**For the year ended December 31, 2018**

	<u>Annual Interest Rates</u>	<u>Interest Payment Dates</u>	<u>Issue Date</u>	<u>Final Maturity Date</u>	<u>Outstanding as of 12/31/17</u>	<u>New Debt in 2018</u>	<u>Payments in 2018</u>	<u>Outstanding as of 12/31/18</u>
Drainage System Bonds, 2014 (9-Mills)	4.53%	(6/1;12/1)	12/01/14	06/01/22	\$ 9,410,000	-	\$ 1,745,000	\$ 7,665,000
					<u>9,410,000</u>	<u>-</u>	<u>1,745,000</u>	<u>7,665,000</u>
Sewer Revenue Bonds, 2011	0.95%	(5/1; 11/1)	12/01/11	12/01/32	6,906,000	-	431,000	6,475,000
Sewer Revenue Bonds, 2014	4.87%	(6/1;12/1)	12/01/14	06/01/44	122,365,000	-	11,925,000	110,440,000
Sewer Revenue Bonds, 2015	5.00%	(6/1;12/1)	12/17/15	12/01/45	<u>100,000,000</u>	<u>-</u>	<u>-</u>	<u>100,000,000</u>
					<u>229,271,000</u>	<u>-</u>	<u>12,356,000</u>	<u>216,915,000</u>
Water Revenue Bonds, 2014	5.00%	(6/1;12/1)	12/01/14	06/01/44	100,660,000	-	2,660,000	98,000,000
Water Revenue Bonds, 2015	4.98%	(6/1;12/1)	12/17/15	02/01/30	<u>100,000,000</u>	<u>-</u>	<u>700,000</u>	<u>99,300,000</u>
					<u>200,660,000</u>	<u>-</u>	<u>3,360,000</u>	<u>197,300,000</u>
<b>TOTAL</b>					<u>\$ 439,341,000</u>	<u>\$ -</u>	<u>\$ 17,461,000</u>	<u>\$ 421,880,000</u>

See accompanying independent auditors' report.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF CASH RECEIPTS AND DISBURSEMENTS**  
**DEBT SERVICE AND DEBT SERVICE RESERVE**  
**REQUIRED BY BOND RESOLUTION**  
**For the year ended December 31, 2018**

	Debt Service Account				Debt Service Reserve Accounts		
	Water Revenue Bonds	Sewer Revenue Bonds	Drainage Revenue Bonds	Total	Water Revenue Bonds	Sewer Revenue Bonds	Total
Cash and investments at beginning of year	\$ 9,108,027	\$ 19,022,233	\$ 68,297	\$ 28,198,557	\$ 7,700,000	\$ 10,707,782	\$ 18,407,782
Cash receipts:							
Bond proceeds and accrued interest	-	-	-	-	-	-	-
Transfers from operating cash and debt service reserve	13,978,578	28,828,700	2,429,617	45,236,895	-	-	-
Excess debt service reserve fund applied to BANS 2006 Maturity	-	-	-	-	-	-	-
Total receipts	<u>13,978,578</u>	<u>28,828,700</u>	<u>2,429,617</u>	<u>45,236,895</u>	<u>-</u>	<u>-</u>	<u>-</u>
Cash disbursements:							
Principal and interest payments, cost of issuance and transfers	<u>13,981,438</u>	<u>29,383,307</u>	<u>2,435,904</u>	<u>45,800,649</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total cash disbursements	<u>13,981,438</u>	<u>29,383,307</u>	<u>2,435,904</u>	<u>45,800,649</u>	<u>-</u>	<u>-</u>	<u>-</u>
Cash and investments at end of year	<u>\$ 9,105,167</u>	<u>\$ 18,467,626</u>	<u>\$ 62,010</u>	<u>\$ 27,634,803</u>	<u>\$ 7,700,000</u>	<u>\$ 10,707,782</u>	<u>\$ 18,407,782</u>

See accompanying independent auditors' report.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**CHANGES IN SELF-INSURANCE LIABILITIES BY DEPARTMENT**  
For the year ended December 31, 2018

	Beginning of Year	Current Year Claims and Estimate Change	Payments	End of Year
<b><u>WATER</u></b>				
Short-term:				
Workers' compensation	\$ 619,984	\$ 1,867,651	\$ 1,777,732	\$ 709,903
Health insurance	761,272	8,549,934	8,539,109	772,097
Total short-term	<u>1,381,256</u>	<u>10,417,585</u>	<u>10,316,841</u>	<u>1,482,000</u>
Long-term:				
Workers' compensation	412,116	(159,637)	-	252,479
General liability	4,963,721	(864,666)	-	4,099,055
Total long-term	<u>5,375,837</u>	<u>(1,024,303)</u>	<u>-</u>	<u>4,351,534</u>
Total	<u>\$ 6,757,093</u>	<u>\$ 9,393,282</u>	<u>\$ 10,316,841</u>	<u>\$ 5,833,534</u>
<b><u>SEWERAGE</u></b>				
Short-term:				
Workers' compensation	\$ 619,984	\$ 1,676,723	\$ 1,586,804	\$ 709,903
Health insurance	725,717	8,526,691	8,515,921	736,487
Total short-term	<u>1,345,701</u>	<u>10,203,414</u>	<u>10,102,725</u>	<u>1,446,390</u>
Long-term:				
Workers' compensation	412,116	(159,637)	-	252,479
General liability	3,790,741	628,835	-	4,419,576
Total long-term	<u>4,202,857</u>	<u>469,198</u>	<u>-</u>	<u>4,672,055</u>
Total	<u>\$ 5,548,558</u>	<u>\$ 10,672,612</u>	<u>\$ 10,102,725</u>	<u>\$ 6,118,445</u>
<b><u>DRAINAGE</u></b>				
Short-term:				
Workers' compensation	\$ 619,988	\$ 1,162,535	\$ 1,072,620	\$ 709,903
Health insurance	710,511	4,485,734	4,479,827	716,418
Total short-term	<u>1,330,499</u>	<u>5,648,269</u>	<u>5,552,447</u>	<u>1,426,321</u>
Long-term:				
Workers' compensation	412,112	(159,633)	-	252,479
General liability	45,112,133	(10,308,526)	11,644	34,791,963
Total long-term	<u>45,524,245</u>	<u>(10,468,159)</u>	<u>11,644</u>	<u>35,044,442</u>
Total	<u>\$ 46,854,744</u>	<u>\$ (4,819,890)</u>	<u>\$ 5,564,091</u>	<u>\$ 36,470,763</u>
<b><u>TOTAL</u></b>				
Short-term:				
Workers' compensation	\$ 1,859,956	\$ 4,706,909	\$ 4,437,156	\$ 2,129,709
Health insurance	2,197,500	21,562,359	21,534,857	2,225,002
Total short-term	<u>4,057,456</u>	<u>26,269,268</u>	<u>25,972,013</u>	<u>4,354,711</u>
Long-term:				
Workers' compensation	1,236,344	(478,907)	-	757,437
General liability	53,866,595	(10,544,357)	11,644	43,310,594
Total long-term	<u>55,102,939</u>	<u>(11,023,264)</u>	<u>11,644</u>	<u>44,068,031</u>
Total	<u>\$ 59,160,395</u>	<u>\$ 15,246,004</u>	<u>\$ 25,983,657</u>	<u>\$ 48,422,742</u>

See accompanying independent auditors' report.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF COMPENSATION, BENEFITS, AND OTHER**  
**PAYMENTS TO THE EXECUTIVE DIRECTOR**  
**For the year ended December 31, 2018**

<b>Marcie Edwards, Interim Executive Director</b>	<b>January 2018 - May 2018</b>
<b>Jade Brown-Russell, Interim Executive Director</b>	<b>May 2018 - August 2018</b>
<b>David Callahan, Interim Executive Director</b>	<b>August 2018 - September 2018</b>
<b>Ghassan Korban, Executive Director</b>	<b>September 2018 - December 2018</b>

Purpose	Amount			
	Marcia Edwards	Jade Brown-Russell	David Callahan	Ghassan Korban
Salary	\$ 111,923	\$ 141,984	\$ 22,050	\$ 77,461
Benefits-hospitalization	-	-	-	-
Benefits-life insurance	-	-	-	46
Benefits-retirement	-	-	-	4,648
Reimbursements	235	991	80	-
Relocation/Housing	22,450	-	-	8,958
Total	\$ 134,608	\$ 142,975	\$ 22,130	\$ 91,113

See accompanying independent auditors' report.

# STATISTICAL SECTION

(unaudited)



SWBNO safety managers Craig Williams, left, and Joseph Mirabin install a hoist at a job site on Napoleon Avenue in Uptown. Designed for work in manholes and confined space, hoists provide another level of safety for field workers.

SEWERAGE AND WATER BOARD OF NEW ORLEANS  
SUMMARY OF STATISTICAL INFORMATION  
December 31, 2018  
(Unaudited)

This part of the Board's Comprehensive Annual Financial report presents detailed information as a context for understanding what the information in the financial statement, note disclosure, and required supplementary information says about the Board's overall financial health.

Financial Trends:

These schedules contain trend information to help the reader understand how the Board's financial performance and well-being have changed over time.

Revenue Capacity:

These schedules contain information to help the reader assess the Board's most significant local revenue source, the property tax.

Debt Capacity:

These schedules present information to help the reader assess the affordability of the Board's current levels of outstanding debt and the Board's ability to issue additional debt in the future.

Demographic and Economic Information:

These schedules offer demographic and economic indicators to help the reader understand the environment within which the Board's financial activities take place.

Operating Information:

These schedules contain service and infrastructure data to help the reader understand how the information in the Board's financial report relates to the services the Board provides and the activities it performs.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**NET POSITION BY COMPONENT**  
**Last Ten Fiscal Years**  
**(Unaudited - accrual basis of accounting)**

	Year									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Business-type activities										
Net investment in capital assets	\$ 2,543,371,049	\$ 2,405,073,361	\$ 2,251,197,095	\$ 2,009,322,572	\$ 2,013,060,377	\$ 1,919,436,757	\$ 1,762,389,823	\$ 1,602,767,538	\$ 1,481,320,632	\$ 1,367,130,463
Restricted for debt service	46,042,585	46,606,340	47,217,981	46,199,659	30,846,959	33,405,265	35,186,883	33,137,542	32,774,880	30,040,670
Unrestricted	(344,611,643)	(282,688,257)	(69,993,128)	27,166,084	(114,602,287)	(175,395,265)	(135,165,032)	(97,925,662)	(82,369,095)	(81,717,627)
Total business-type activities net position	<u>\$ 2,244,801,991</u>	<u>\$ 2,168,991,444</u>	<u>\$ 2,228,421,948</u>	<u>\$ 2,082,688,315</u>	<u>\$ 1,929,305,049</u>	<u>\$ 1,777,446,757</u>	<u>\$ 1,662,411,674</u>	<u>\$ 1,537,979,418</u>	<u>\$ 1,431,726,417</u>	<u>\$ 1,315,453,506</u>

Source: Audited Comprehensive Annual Financial Reports

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**CHANGES IN NET POSITION BY COMPONENT**  
**Last Ten Fiscal Years**  
**(Unaudited - accrual basis of accounting)**

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<b>Operating revenues:</b>										
Sales of water and delinquent fees	\$ 90,287,081	\$ 90,464,810	\$ 83,158,940	\$ 78,007,937	\$ 70,818,255	\$ 64,398,609	\$ 60,256,304	\$ 59,890,312	\$ 55,079,772	\$ 50,677,054
Sewerage service charges	114,614,157	111,063,719	104,795,184	95,636,966	86,553,262	78,535,785	71,407,835	70,358,076	69,534,779	66,102,946
Plumbing inspection and license fees	648,332	588,330	638,502	610,768	678,352	643,036	687,806	758,072	746,426	484,448
Other revenue	5,687,203	3,451,274	4,078,380	8,290,157	5,024,480	5,119,368	4,626,276	8,581,123	4,702,753	3,814,564
<b>Total operating revenues</b>	<b>211,236,773</b>	<b>205,568,133</b>	<b>192,671,006</b>	<b>182,545,828</b>	<b>163,074,349</b>	<b>148,696,798</b>	<b>136,978,221</b>	<b>139,587,583</b>	<b>130,063,730</b>	<b>121,079,012</b>
<b>Operating Expenses:</b>										
Power and pumping	31,874,462	36,549,229	13,499,216	13,139,255	13,227,389	12,572,620	11,951,746	11,787,614	12,606,851	12,950,788
Treatment	22,958,975	25,651,907	20,300,344	18,740,637	19,527,000	18,143,049	18,906,540	18,081,523	19,029,752	19,910,557
Transmission and distribution	46,530,018	36,409,559	37,174,706	35,878,137	27,186,606	23,323,900	26,019,713	27,216,035	15,915,361	21,466,523
Customer accounts	5,243,276	4,460,155	4,151,027	3,807,405	3,514,360	3,425,934	3,334,652	3,369,643	3,314,887	3,044,936
Customer service	4,476,414	4,217,543	4,271,555	3,973,344	3,717,925	3,464,197	3,332,300	3,320,100	3,386,338	3,417,239
Administration and general	28,253,318	24,343,704	18,506,107	16,848,253	16,976,430	17,333,945	15,879,736	16,054,154	16,060,032	13,504,125
Payroll related	49,416,581	38,126,322	43,990,879	36,349,834	32,488,264	34,928,822	33,980,859	34,770,439	33,616,025	35,085,953
Maintenance of general plant	28,813,485	26,100,182	23,979,309	27,148,505	28,178,593	27,647,127	24,480,560	25,185,237	30,723,060	24,969,819
Depreciation	63,501,190	59,450,076	52,060,674	51,661,651	50,157,869	43,648,267	39,011,955	34,772,279	35,216,611	34,692,628
Provision for doubtful accounts	20,942,217	14,326,711	3,413,404	2,466,117	1,940,782	2,052,096	1,676,511	867,460	4,855,325	889,811
Provision for claims	(7,202,684)	45,272,821	6,450,805	2,435,209	2,444,878	1,801,114	130,704	(4,680,454)	3,186,714	58,860
<b>Total operating expenses</b>	<b>294,807,252</b>	<b>314,908,209</b>	<b>227,798,026</b>	<b>212,448,347</b>	<b>199,360,096</b>	<b>188,341,071</b>	<b>178,705,276</b>	<b>170,744,030</b>	<b>177,910,956</b>	<b>169,991,239</b>
<b>Operating loss</b>	<b>(83,570,479)</b>	<b>(109,340,076)</b>	<b>(35,127,020)</b>	<b>(29,902,519)</b>	<b>(36,285,747)</b>	<b>(39,644,273)</b>	<b>(41,727,055)</b>	<b>(31,156,447)</b>	<b>(47,847,226)</b>	<b>(48,912,227)</b>
<b>Non-operating revenues (expenses):</b>										
Two-mill tax	553	2,735	7,526	4,960	1,193	-	-	4,870	1,045	-
Three-mill tax	15,504,589	15,309,309	16,043,825	14,139,193	13,481,526	13,175,711	12,497,723	11,129,376	10,378,060	10,302,545
Six-mill tax	15,576,221	16,229,098	16,215,799	14,290,667	13,626,539	13,317,505	12,630,977	11,242,927	10,498,580	10,410,524
Nine-mill tax	23,570,261	23,881,671	23,762,398	21,421,102	20,425,388	19,962,114	18,933,290	16,855,081	15,672,791	15,485,030
Other taxes	594,532	593,424	564,050	581,395	572,083	494,106	278,394	316,079	333,795	371,006
Operating and maintenance grants	78,814	845	24,738	2,405	1,502	2,054,492	7,624,526	11,479,664	9,367,940	19,373,185
Interest income	3,788,898	4,273,821	4,667,470	2,511,032	811,263	353,630	401,387	426,870	274,323	885,723
Bond issuance costs	-	-	-	(1,510,657)	(2,649,339)	-	-	-	-	-
Interest expense	(3,204,239)	(3,537,336)	(32,471)	(53,518)	-	(371,349)	(737,893)	(736,878)	(1,687,603)	(1,766,553)
Recovery (provision) for grants	3,183,641	(8,906,949)	-	-	-	-	-	-	-	-
Forgiveness of Community Disaster Loan	-	-	-	-	-	30,061,368	-	-	41,438,410	-
<b>Total non-operating revenues (expenses)</b>	<b>59,093,270</b>	<b>47,846,618</b>	<b>61,253,335</b>	<b>51,386,579</b>	<b>46,270,155</b>	<b>79,047,577</b>	<b>51,628,404</b>	<b>50,717,989</b>	<b>86,277,341</b>	<b>55,061,460</b>
<b>Income (loss) before capital contributions</b>	<b>(24,477,209)</b>	<b>(61,493,458)</b>	<b>26,126,315</b>	<b>21,484,060</b>	<b>9,984,408</b>	<b>39,403,304</b>	<b>9,901,349</b>	<b>19,561,542</b>	<b>38,430,115</b>	<b>6,149,233</b>
<b>Capital contributions</b>	<b>100,287,756</b>	<b>96,336,075</b>	<b>119,607,318</b>	<b>131,899,206</b>	<b>141,873,884</b>	<b>114,317,636</b>	<b>114,530,907</b>	<b>115,575,107</b>	<b>48,959,148</b>	<b>60,298,230</b>
<b>Change in net position</b>	<b>75,810,547</b>	<b>34,842,617</b>	<b>145,733,633</b>	<b>153,383,266</b>	<b>151,858,292</b>	<b>153,720,940</b>	<b>124,432,256</b>	<b>135,136,649</b>	<b>87,389,263</b>	<b>66,447,463</b>
<b>Net position:</b>										
Beginning of year	2,168,991,444	2,228,421,948	2,082,688,315	1,929,305,049	1,777,446,757	1,662,411,674	1,537,979,418	1,402,842,769	1,315,453,506	1,249,006,043
Change in accounting principle	-	(94,273,121)	-	-	-	(38,685,857)	-	-	-	-
Beginning of year, as restated	2,168,991,444	2,134,148,827	2,082,688,315	1,929,305,049	1,777,446,757	1,623,725,817	1,537,979,418	1,402,842,769	1,315,453,506	1,249,006,043
<b>End of year</b>	<b>\$ 2,244,801,991</b>	<b>\$ 2,168,991,444</b>	<b>\$ 2,228,421,948</b>	<b>\$ 2,082,688,315</b>	<b>\$ 1,929,305,049</b>	<b>\$ 1,777,446,757</b>	<b>\$ 1,662,411,674</b>	<b>\$ 1,537,979,418</b>	<b>\$ 1,402,842,769</b>	<b>\$ 1,315,453,506</b>

Source: Audited Comprehensive Annual Financial Reports - Information available for nine years

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**REVENUE AND EXPENSES BY SOURCE**  
**ENTERPRISE FUND**  
**Last Ten Years**  
**(Unaudited)**

Revenues	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Charges for service	\$ 117,264,448	\$ 125,360,977	\$ 131,006,460	\$ 132,351,945	\$ 143,577,430	\$ 158,049,869	\$ 174,255,671	\$ 188,592,626	\$ 202,116,859	\$ 205,549,570
Dedicated taxes	36,198,099	36,549,431	39,227,384	44,061,990	46,455,330	47,533,453	49,850,962	56,022,022	55,420,078	54,651,071
Two-mill tax	-	1,045	4,870	-	-	1,193	4,960	7,526	2,735	553
Interest on investments	885,723	274,323	426,870	401,387	353,630	811,263	2,511,046	4,667,470	4,273,821	3,788,898
Other taxes and revenue	23,558,755	55,842,898	20,376,866	12,529,196	37,729,334	5,598,065	7,363,300	4,667,168	4,045,543	6,360,549
	<u>\$ 177,907,025</u>	<u>\$ 218,028,674</u>	<u>\$ 191,042,450</u>	<u>\$ 189,344,518</u>	<u>\$ 228,115,724</u>	<u>\$ 211,993,843</u>	<u>\$ 233,985,939</u>	<u>\$ 253,956,812</u>	<u>\$ 265,859,036</u>	<u>\$ 270,350,641</u>
Expenses	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Personnel services	\$ 74,540,678	\$ 72,725,464	\$ 73,834,142	\$ 74,358,288	\$ 75,998,997	\$ 76,009,536	\$ 81,094,850	\$ 88,422,754	\$ 85,643,784	\$ 107,582,424
Services and utilities	50,787,395	47,125,394	42,417,785	40,621,806	44,686,711	46,739,864	46,321,849	48,095,715	56,047,431	51,770,073
Materials and supplies	8,880,950	12,535,610	23,532,818	22,906,012	20,153,886	22,067,167	28,468,671	29,354,674	54,170,680	58,214,032
Depreciation and amortization	34,833,545	35,381,030	34,850,026	39,011,955	43,648,267	50,157,869	51,661,651	52,060,674	59,450,076	63,501,190
Provision for doubtful accounts	889,811	4,855,325	867,460	1,676,511	2,052,096	1,940,782	2,466,131	3,413,404	14,326,711	20,942,217
Provision for claims	58,860	3,186,714	(4,680,454)	130,704	1,801,114	2,444,878	2,435,209	6,450,805	45,272,821	(7,202,684)
Provision for grants	-	-	-	-	-	-	-	-	8,906,949	(3,183,641)
Bond issuance costs	-	-	-	-	-	2,649,339	1,510,657	-	-	-
Interest	1,766,553	1,687,603	736,878	737,893	371,349	-	53,518	32,471	3,537,336	3,204,239
	<u>\$ 171,757,792</u>	<u>\$ 177,497,140</u>	<u>\$ 171,558,655</u>	<u>\$ 179,443,169</u>	<u>\$ 188,712,420</u>	<u>\$ 202,009,435</u>	<u>\$ 214,012,536</u>	<u>\$ 227,830,497</u>	<u>\$ 327,355,788</u>	<u>\$ 294,827,850</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**ASSESSED AND ESTIMATED ACTUAL VALUE OF TAXABLE PROPERTY**  
**Last Ten Fiscal Years**  
**(Unaudited - amounts in thousands)**

Fiscal Year	Net Assessed Value		Total Net Assessed Value	Total Estimated Actual Value (1)	Ratio of Total Net Assessed to Total Estimated Actual Value
	Real Estate	Personal Property			
2009	2,042,426	557,039	2,599,465	21,974,841	11.8%
2010	2,489,813	387,334	2,877,147	21,974,841	13.1%
2011	2,584,334	385,700	2,970,034	21,974,841	13.5%
2012	2,760,973	390,952	3,151,925	21,974,841	14.3%
2013	2,920,015	413,120	3,333,135	21,974,841	15.2%
2014	3,065,164	405,514	3,470,678	21,974,841	15.8%
2015	3,202,063	431,355	3,633,418	21,974,841	16.5%
2016	3,376,001	456,454	3,832,455	30,873,272	12.4%
2017	3,481,746	471,986	3,953,732	35,475,355	11.1%
2018	3,592,392	497,655	3,789,022	35,475,355	10.7%

(1) Last available information is 2017.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**PROPERTY TAX RATES - DIRECT AND OVERLAPPING GOVERNMENTS**  
**Last Ten Fiscal Years**  
**(Unaudited)**

Number of Mills  
(Per \$1,000 of assessed value)

<u>Fiscal Year</u>	<u>City of New Orleans</u>	<u>Orleans Levee District Eastbank</u>	<u>Algiers Levee District</u>	<u>Sewerage &amp; Water Board of New Orleans</u>	<u>Orleans Parish School Board</u>	<u>Audubon Park &amp; Zoo</u>	<u>Total</u>
2009	61.34	10.95	12.76	16.03**	38.47	3.31	130.10
2010	64.31	11.67	12.76	16.43**	44.12	3.31	140.93
2011	72.05	11.67	12.76	16.43**	44.12	3.31	148.67
2012	72.05	11.67	12.76	16.43**	43.6	3.31	148.15
2013	72.05	11.67	12.36	16.43**	44.81	3.31	136.60
2014	72.05	11.67	12.76	16.43**	45.31	3.31	147.58
2015	71.95	11.67	12.56	16.43**	45.31	3.31	149.56
2016	74.45	12.28	6.21	16.43**	45.31	3.31	145.71
2017	60.98	12.28	12.56	16.43**	45.31	3.31	134.44
2018	60.98	12.28	12.56	16.43**	45.31	3.31	134.44

Source: City of New Orleans

\*\*3 mills adopted in 1967 expires in 2046

\*\*6 mills adopted in 1978 expires in 2027

\*\*9 mills adopted in 1982 expires in 2032

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**TEN LARGEST TAXPAYERS**  
**December 31, 2018 and Ten Years Ago 2008**  
**(Amount in thousands)**  
**(Unaudited)**

Name of Taxpayer	Type of Business	2018 Assessed Value	Percentage of Total Assessed Value
Entergy Service	Electric & Gas Utilities	\$ 114,443	3.02%
Capital One Bank	Financial Institution	47,329	1.25%
Marriott Hotel	Hospitality	32,944	0.87%
Bellsouth	Telephone Utilities	31,241	0.82%
WhitneyBk/Hancock Bk	Financial Institution	30,697	0.81%
Harrah"s Entertainment	Hospitality & Gaming	26,582	0.70%
J P Morgan Chase Bank	Financial Institution	22,067	0.58%
Folgers Coffee	Coffee Roasting Plant	19,740	0.52%
International Rivercenter	Real Estate	18,105	0.48%
Sheraton Hotel	Hospitality	16,898	0.45%
		<u>\$ 360,046</u>	<u>9.50%</u>

Name of Taxpayer	Type of Business	2008 Assessed Value	Percentage of Total Assessed Value
Entergy Service	Electric & Gas Utilities	\$ 63,919	2.53%
Bellsouth Telecommunications	Telephone Utilities	57,127	2.26%
Capital One/Hibernia Bank	Financial Institution	46,409	1.83%
Whitney National Bank	Financial Institution	35,163	1.39%
Harrah"s Entertainment	Hospitality & Gaming	41,221	1.63%
J P Morgan Chase Bank	Financial Institution	19,173	0.76%
CS&M Association (Sheraton)	Managed Care	19,197	0.76%
International Rivercenter	Real Estate	19,907	0.79%
Marriott Hotel Properties	Hospitality	13,723	0.54%
Hertz Properties	Real Estate	10,877	0.43%
		<u>\$ 326,716</u>	<u>12.92%</u>

**Source:** City of New Orleans Department of Finance Bureau of the Treasury

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**PROPERTY TAX**  
**LEVIES AND COLLECTIONS BY THE CITY OF NEW ORLEANS**  
**Last Ten Fiscal Years**  
**(Unaudited - Amounts in Thousands)**

Fiscal Year	Total Levied	Collected within Fiscal year of the Levy		Collections in Subsequent Years	Total Collections to Date	
		Amount	Percent	Amount	Amount	Percentage of Levy
Real Estate Taxes:						
2009	\$ 275,869	\$ 257,219	93.24%	\$ 17,061	\$ 274,280	99.42%
2010	309,800	291,078	93.96%	16,641	307,719	99.33%
2011	339,370	320,437	94.42%	16,394	336,831	99.25%
2012	362,262	342,248	94.48%	17,109	359,357	99.20%
2013	382,902	363,026	94.81%	16,730	379,756	99.18%
2014	393,304	375,815	95.55%	13,527	389,342	98.99%
2015	422,306	397,843	94.21%	20,637	418,480	99.09%
2016	457,800	442,153	96.58%	10,381	452,534	98.85%
2017	480,924	458,767	95.39%	15,233	474,000	98.56%
2018	497,718	481,642	96.77%	-	481,642	96.77%
Personal Property Taxes:						
2009	\$ 69,935	\$ 63,118	90.25%	\$ 6,762	\$ 69,880	99.92%
2010	74,530	68,508	91.92%	6,022	74,530	100.00%
2011	78,996	74,204	93.93%	4,637	78,841	99.80%
2012	81,685	78,275	95.83%	3,251	81,526	99.81%
2013	87,058	84,410	96.96%	981	85,391	98.09%
2014	84,620	81,926	96.82%	797	82,723	97.76%
2015	86,961	81,773	94.03%	2,961	84,734	97.44%
2016	92,428	88,797	96.07%	966	89,763	97.12%
2017	96,441	92,123	95.52%	242	92,365	95.77%
2018	101,280	94,862	93.66%	-	94,862	93.66%

Source: City of New Orleans

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**WATER AND SEWER RATES**  
**Last Ten Fiscal Years**  
**(Unaudited)**

Year	Water					Sewer	
	Rate per 1,000 Gallons					Monthly Base Rate	Rate per 1,000 Gallons
	Monthly Base Rate	First 3,000 Gallons	Next 17,000 Gallons	Next 980,000 Gallons	All Gallons Over 1,000,000		
2009	\$ 3.70	\$ 2.47	\$ 4.21	\$ 3.31	\$ 2.78	\$ 11.60	\$ 4.04
2010	\$ 3.90	\$ 2.59	\$ 4.42	\$ 3.48	\$ 2.92	\$ 11.60	\$ 4.04
2011	\$ 4.05	\$ 2.69	\$ 4.60	\$ 3.62	\$ 3.04	\$ 11.60	\$ 4.04
2012	\$ 4.05	\$ 2.69	\$ 4.60	\$ 3.62	\$ 3.04	\$ 11.60	\$ 4.04
2013	\$ 4.91	\$ 2.96	\$ 5.06	\$ 3.98	\$ 3.34	\$ 14.04	\$ 4.44
2014	\$ 4.91	\$ 3.26	\$ 5.57	\$ 4.38	\$ 3.67	\$ 14.04	\$ 4.88
2015	\$ 5.40	\$ 3.59	\$ 6.13	\$ 4.82	\$ 4.04	\$ 15.44	\$ 5.37
2016	\$ 5.94	\$ 3.95	\$ 6.74	\$ 5.30	\$ 4.44	\$ 16.98	\$ 5.91
2017	\$ 6.53	\$ 4.35	\$ 7.41	\$ 5.83	\$ 4.88	\$ 18.68	\$ 6.50
2018	\$ 7.18	\$ 4.79	\$ 8.15	\$ 6.41	\$ 5.37	\$ 20.55	\$ 7.15

Note: Rates are based on 5/8" meter, which is the standard household meter size.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**RATIOS OF OUTSTANDING DEBT BY TYPE**  
**Last Ten Fiscal Years**

Fiscal Year	Personal Income (1) (in thousands)	Population (2)	Revenue Bonds	Special Tax Bonds	LDHH Bonds	Special Community Disaster Loan Payable	Debt Service Assistance Fund Loan	Total Debt	Percentage of Personal Income	Debt per Capita
2009	\$ 15,260,613	354,850	\$ 221,958,520	\$ 21,525,000	\$ -	\$ 61,956,747	\$ 77,460,393	\$ 382,900,660	3.99%	\$ 1,079
2010	15,260,613	347,907	208,422,155	20,290,000	632,842	25,166,747	77,460,393	331,972,137	4.60%	954
2011	15,260,613	360,740	194,330,103	18,990,000	1,503,834	25,166,747	77,465,247	317,455,931	4.81%	880
2012	15,346,678	369,250	186,832,906	17,630,000	1,998,636	25,166,747	73,776,967	305,405,256	5.03%	827
2013	15,888,893	378,715	172,192,129	16,205,000	3,865	-	69,917,529	258,318,523	6.15%	682
2014	16,437,492	378,715	292,068,863	14,870,042	3,865	-	41,317,444	348,260,214	4.72%	920
2015	18,032,254	389,617	504,808,633	12,750,000	-	-	61,653,139	579,211,772	3.11%	1,487
2016	14,094,612	391,495	488,835,158	11,100,000	-	-	57,230,725	557,165,883	2.53%	1,423
2017	14,094,612	393,292	488,835,158	9,410,000	-	-	52,604,006	550,849,164	2.56%	1,401
2018	14,094,612 (3)	393,292 (4)	451,932,050	7,665,000	-	-	47,756,909	507,353,959	2.78%	1,290

- (1) Source: Bureau of Economic Analysis.
- (2) Source: [www.census.gov/popest](http://www.census.gov/popest).
- (3) Most recent available is as of 2016
- (4) Most recent available is as of 2017

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
COMPUTATION OF DIRECT AND OVERLAPPING DEBT  
December 31, 2018  
(Unaudited)**

	<u>Net Outstanding Debt</u>	<u>Percentage Overlapping</u>	<u>Overlapping Debt</u>
Direct debt:			
Sewerage and Water Board, net of debt service funds (tax bonds only)	<u>\$ 6,475,000</u>	<u>100%</u>	<u>\$ 6,475,000</u>
Overlapping debt:			
City of New Orleans	535,177,062	100%	535,177,062
Audubon Park Commission	13,590	100%	13,590
Orleans Parish School Board (1)	<u>10,405</u>	<u>100%</u>	<u>10,405</u>
Total overlapping debt	<u>535,201,057</u>	<u>100%</u>	<u>535,201,057</u>
Total direct and overlapping debt	<u><u>\$ 541,676,057</u></u>	<u><u>100%</u></u>	<u><u>\$ 541,676,057</u></u>

(1) The fiscal year of the Orleans Parish School Board is June 30th; The overlapping debt is based on June 30.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**REVENUE BONDS DEBT SERVICE COVERAGE**  
**WATER REVENUE BONDS**  
**Last Five Fiscal Years**  
**(Unaudited)**

Fiscal Year	Operating Revenue	(3) Direct Operating Expenses	Net Revenue Available for Debt Services	Debt Services Requirements			Coverage
				Principal	Interest	Total	
2014	74,221,260	66,607,501	7,613,759	-	2,829,414	2,829,414	2.69
2015	(1) 82,957,551	71,168,572	11,788,979	-	3,500,000	3,500,000	3.37
2016	(1) 88,366,278	75,002,591	13,363,687	325,000	7,646,525	7,971,525	1.68
2017	94,657,534	77,838,026	16,819,508	2,540,000	10,100,550	12,640,550	1.33
2018	(2) 103,514,199	80,839,797	22,674,402	3,360,000	9,973,550	13,333,550	1.70

(1) The 2015 and 2016 Debt Service Coverage Ratios have been recast based upon the opinion of the Qualified Independent Consultant

(2) See Note 20 to the financial statements

(3) Total operating expenses less depreciation, change in total OPEB liability, net pension liability and related amortization of deferred inflows and outflows of resources.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**REVENUE BONDS DEBT SERVICE COVERAGE**  
**SEWER REVENUE BONDS**  
**Last Five Fiscal Years**  
**(Unaudited)**

Fiscal Year	Operating Revenue	(3) Direct Operating Expenses	Net Revenue Available for Debt Services	Debt Services Requirements			Coverage
				Principal	Interest	Total	
2014	88,756,831	45,943,518	42,813,313	13,695,000	5,445,799	19,140,799	2.24
2015	(1) 98,166,699	50,196,374	47,970,325	11,644,000	4,750,603	16,394,603	2.93
2016	(1) 108,241,219	57,142,277	51,098,942	12,852,000	10,463,838	23,315,838	2.19
2017	114,318,485	64,686,410	49,632,075	13,392,000	11,413,498	24,805,498	2.00
2018	(2) 118,029,837	81,270,955	36,758,882	12,356,000	10,783,057	23,139,057	1.59

(1) The 2015 and 2016 Debt Service Coverage Ratios have been recast based upon the opinion of the Qualified Independent Consultant

(2) See Note 20 to the financial statements

(3) Total operating expenses less depreciation, change in total OPEB liability, net pension liability and related amortization of deferred inflows and outflows of resources.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**WATER SYSTEM UNRESTRICTED CASH AND CASH EQUIVALENTS**  
**DAYS OF OPERATING AND MAINTENANCE EXPENSE AT YEAR END**  
**Last Five Fiscal Years**  
**(unaudited)**

<u>Fiscal Year</u>	<u>Cash Balance</u>	<u>One Day O&amp;M</u>	<u>Measurement</u>
2014	\$ 32,497,474	\$ 188,711	172.21
2015	39,253,304	194,982	201.32
2016	38,383,800	205,487	186.79
2017	29,823,726	213,255	139.85
2018	38,771,396	221,479	175.06

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SEWER SYSTEM UNRESTRICTED CASH AND CASH EQUIVALENTS**  
**DAYS OF OPERATING AND MAINTENANCE EXPENSE AT YEAR END**  
**Last Five Fiscal Years**  
**(unaudited)**

<u>Fiscal Year</u>	<u>Cash Balance</u>	<u>One Day O&amp;M</u>	<u>Measurement</u>
2014	26,736,696	130,990	204.11
2015	40,267,802	137,524	292.80
2016	62,584,566	156,554	399.76
2017	52,923,266	177,223	298.63
2018	30,953,937	222,660	139.02

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**DEMOGRAPHIC STATISTICS**  
**Last Ten Fiscal Years**  
**(Unaudited)**

<u>Fiscal Year</u>	<u>Population(1)</u>	<u>Personal Income(2) (in thousands)</u>	<u>Per Capita Personal Income</u>	<u>Unemployment Rate (3)</u>
2009	354,850	\$ 15,260,613	\$ 35,507	6.80%
2010	354,850	\$ 15,260,613	\$ 35,507	8.50%
2011	343,829	\$ 13,264,235	\$ 38,578	7.30%
2012	369,250	\$ 15,346,678	\$ 41,562	5.50%
2013	378,715	\$ 15,888,893	\$ 41,955	4.20%
2014	378,715	\$ 16,437,492	\$ 43,403	7.50%
2015	389,617	\$ 18,032,254	\$ 46,282	6.00%
2016	391,495	\$ 14,094,612	\$ 36,792	5.40%
2017	393,292	\$ 14,094,612	\$ 35,838	5.41%
2018	393,292 (4)	\$ 14,094,612 (4)	\$ 35,838 (4)	3.09%

(1) [www.census.gov/popest](http://www.census.gov/popest).

(2) Estimates- Bureau of Economic Analysis.

(3) U.S. Bureau of Labor Statistics.

(4) Most recent available is 2017.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**NEW ORLEANS AREA PRINCIPAL EMPLOYERS**  
**Last Ten Fiscal Years**  
**(Unaudited)**

**Rank / Number of Employees**

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>( 1 ) 2014</b>	<b>( 2 ) 2015</b>	<b>( 2 ) 2016</b>	<b>( 2 ) 2017</b>	<b>( 2 ) 2018</b>
Acme Truck Line Inc.			8 / 2,500			10 / 3,100	10 / 3,100	10 / 3,100	10 / 3,100	10 / 3,100
Al Copeland Investments	7 / 2,000	7 / 2,000	9 / 2,200	9 / 2,000						
Boh Bros. Construction	9 / 1,500	9 / 1,500								
Boomtown Casino Westbank										
Capital One Bank N.A.	6 / 2,150	6 / 2,150		8 / 2,150						
City of New Orleans										
Dow Chemical Company	8 / 2,000	8 / 2,000		10 / 2,000						
East Jefferson General Hospital				5 / 3,150						
Harrah's New Orleans Casino	5 / 2,200	5 / 2,200	7 / 2,700	7 / 2,200	7 / 2,700					
Hilton New Orleans	10 / 1,400	10 / 1,400				4 / 5,000	4 / 5,000	4 / 5,000	4 / 5,000	4 / 5,000
Hope Haven Center										
Houma Industries										
Ingalls Shipbuilding						3 / 6,000	3 / 6,000	3 / 6,000	3 / 6,000	3 / 6,000
JCC Holding Co. LLC										
Lockheed Martin Manned Space Systems	4 / 2,832	4 / 2,832		7 / 2,800						
Louisiana Children's Medical Center						7 / 4,500	7 / 4,500	7 / 4,500	7 / 4,500	7 / 4,500
LSU Health Sciences Center New Orleans			2 / 7,000	3 / 5,000	2 / 7,000	2 / 7,000	2 / 7,000	2 / 7,000	2 / 7,000	2 / 7,000
LSU Public Hospital						5 / 5,000	5 / 5,000	5 / 5,000	5 / 5,000	5 / 5,000
NASA Michoud			10 / 2,000		9 / 2,000					
North Oaks Health System					7 / 2,700					
Northrup Grumman Avondale	2 / 5,400	2 / 5,400	3 / 6,000	2 / 5,400	3 / 6,000					
Ochsner Medical Institutions / Health System	1 / 9,107	1 / 9,107	1 / 9,800	1 / 9,100	1 / 9,100	1 / 9,800	1 / 9,800	1 / 9,800	1 / 9,800	1 / 9,800
Superior Energy Services, Inc.										
Textron Marine & Land Systems										
Tulane University	3 / 4,410	3 / 4,410	4 / 5,000	4 / 4,400	4 / 5,000	6 / 4,700	6 / 4,700	6 / 4,700	6 / 4,700	6 / 4,700
University of New Orleans			6 / 3,114		6 / 3,114	9 / 3,100	9 / 3,100	9 / 3,100	9 / 3,100	9 / 3,100
US Post Office			5 / 4,000	6 / 2,900	5 / 4,000	8 / 4,000	8 / 4,000	8 / 4,000	8 / 4,000	8 / 4,000
USDA, National Finance Center										
West Jefferson Medical Center					10 / 1,904					

( 1 ) Source: Greater New Orleans Inc. and New Orleans City Business

( 2 ) Most recent available is as of March 2014.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**CAPITAL EXPENDITURES BY DEPARTMENT**  
**ENTERPRISE FUND**  
**Last Ten Fiscal Years**  
**(Unaudited)**

<b>Year</b>	<b>Water</b>	<b>Sewer</b>	<b>Drainage</b>	<b>Total</b>
2009	22,465,931	56,010,946	47,185,424	125,662,301
2010	32,248,119	58,682,400	51,465,065	142,395,584
2011	20,374,785	53,662,611	66,821,905	140,859,301
2012	33,888,620	60,658,231	90,435,159	184,982,010
2013	37,552,122	63,172,589	79,811,759	180,536,470
2014	46,604,884	58,870,182	152,172,018	257,647,084
2015	42,638,486	56,387,080	152,172,018	251,197,584
2016	46,106,462	48,975,578	167,051,515	262,133,555
2016	89,887,813	85,066,607	151,533,673	326,488,093
2018	72,486,981	66,802,398	108,035,976	247,325,355

<sup>1</sup> Includes contributed assets

**SEWERAGE & WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF FUTURE DEBT PAYMENTS**  
**DECEMBER 31, 2018**  
(Unaudited)

		<b>Water Revenue Bonds</b>		
		<u>Series 2014</u>	<u>Series 2015</u>	<u>All Bonds Issues</u>
2019	Principal	\$ 2,800,000	\$ 775,000	\$ 3,575,000
	Interest	4,900,000	4,919,550	9,819,550
2020	Principal	2,930,000	895,000	3,825,000
	Interest	4,760,000	4,888,550	9,648,550
2021	Principal	3,070,000	935,000	4,005,000
	Interest	4,613,500	4,852,750	9,466,250
2022	Principal	3,225,000	970,000	4,195,000
	Interest	4,460,000	4,815,350	9,275,350
2023	Principal	2,230,000	2,155,000	4,385,000
	Interest	4,298,750	4,786,250	9,085,000
2024	Principal	2,345,000	2,260,000	4,605,000
	Interest	4,187,250	4,678,500	8,865,750
2025	Principal	2,460,000	2,375,000	4,835,000
	Interest	4,070,000	4,565,500	8,635,500
2026	Principal	2,585,000	2,490,000	5,075,000
	Interest	3,947,000	4,446,750	8,393,750
2027	Principal	2,715,000	2,615,000	5,330,000
	Interest	3,817,750	4,322,250	8,140,000
2028	Principal	2,850,000	2,750,000	5,600,000
	Interest	3,682,000	4,191,500	7,873,500
2029	Principal	2,990,000	2,885,000	5,875,000
	Interest	3,539,500	4,054,000	7,593,500
2030	Principal	3,140,000	3,030,000	6,170,000
	Interest	3,390,000	3,909,750	7,299,750
2031	Principal	3,300,000	3,180,000	6,480,000
	Interest	3,233,000	3,758,250	6,991,250
2032	Principal	3,460,000	3,345,000	6,805,000
	Interest	3,068,000	3,599,250	6,667,250
2033	Principal	3,635,000	3,510,000	7,145,000
	Interest	2,895,000	3,432,000	6,327,000
2034	Principal	3,820,000	3,680,000	7,500,000
	Interest	2,713,250	3,256,500	5,969,750
2035	Principal	4,010,000	3,865,000	7,875,000
	Interest	2,522,250	3,072,500	5,594,750
2036	Principal	4,210,000	4,060,000	8,270,000
	Interest	2,321,750	2,879,250	5,201,000
2037	Principal	4,420,000	4,265,000	8,685,000
	Interest	2,111,250	2,676,250	4,787,500
2038	Principal	4,645,000	4,475,000	9,120,000
	Interest	1,890,250	2,463,000	4,353,250
2039	Principal	4,875,000	4,700,000	9,575,000
	Interest	1,658,000	2,239,250	3,897,250
2040	Principal	5,120,000	4,930,000	10,050,000
	Interest	1,414,250	2,004,250	3,418,500
2041	Principal	5,370,000	5,185,000	10,555,000
	Interest	1,158,250	1,757,750	2,916,000
2042	Principal	5,645,000	5,435,000	11,080,000
	Interest	889,750	1,498,500	2,388,250
2043	Principal	5,925,000	5,710,000	11,635,000
	Interest	607,500	1,226,750	1,834,250
2044	Principal	6,225,000	5,995,000	12,220,000
	Interest	311,250	941,250	1,252,500
2045	Principal	-	12,830,000	12,830,000
	Interest	-	641,500	641,500
Total Principal		98,000,000	99,300,000	197,300,000
Total Interest		76,459,500	89,876,950	166,336,450
Total Future Debt Payments		<u>\$ 174,459,500</u>	<u>\$ 189,176,950</u>	<u>\$ 363,636,450</u>

**SEWERAGE & WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF FUTURE DEBT PAYMENTS**  
**DECEMBER 31, 2018**  
(Unaudited)

		<b>Sewer Revenue Bonds</b>			
		<b>Series 2011</b>	<b>Series 2014</b>	<b>Series 2015</b>	<b>Total</b>
2019	Principal	\$ 435,000	\$ 11,075,000	\$ -	\$ 11,510,000
	Interest	28,379	5,142,450	5,000,000	10,170,829
2020	Principal	439,000	11,660,000	-	12,099,000
	Interest	26,421	4,574,075	5,000,000	9,600,496
2021	Principal	443,000	9,050,000	2,000,000	11,493,000
	Interest	24,446	4,056,325	4,950,000	9,030,771
2022	Principal	447,000	7,445,000	2,000,000	9,892,000
	Interest	22,452	3,643,950	4,850,000	8,516,402
2023	Principal	451,000	3,920,000	2,000,000	6,371,000
	Interest	20,440	3,359,825	4,750,000	8,130,265
2024	Principal	456,000	3,760,000	2,000,000	6,216,000
	Interest	18,412	3,167,825	4,650,000	7,836,237
2025	Principal	460,000	1,970,000	2,125,000	4,555,000
	Interest	16,360	3,024,575	4,546,875	7,587,810
2026	Principal	464,000	2,070,000	2,235,000	4,769,000
	Interest	14,290	2,923,575	4,437,875	7,375,740
2027	Principal	469,000	2,175,000	2,350,000	4,994,000
	Interest	12,202	2,817,450	4,323,250	7,152,902
2028	Principal	473,000	2,280,000	2,480,000	5,233,000
	Interest	10,090	2,706,075	4,202,500	6,918,665
2029	Principal	478,000	2,395,000	2,610,000	5,483,000
	Interest	7,962	2,589,200	4,075,250	6,672,412
2030	Principal	482,000	2,515,000	2,735,000	5,732,000
	Interest	5,812	2,475,881	3,941,625	6,423,318
2031	Principal	487,000	2,620,000	2,880,000	5,987,000
	Interest	3,642	2,366,762	3,801,250	6,171,654
2032	Principal	491,000	2,735,000	3,025,000	6,251,000
	Interest	1,450	2,252,969	3,653,625	5,908,044
2033	Principal	-	2,850,000	3,695,000	6,545,000
	Interest	-	2,134,287	3,485,625	5,619,912
2034	Principal	-	2,970,000	3,885,000	6,855,000
	Interest	-	2,010,613	3,296,125	5,306,738
2035	Principal	-	3,095,000	4,100,000	7,195,000
	Interest	-	1,870,125	3,096,500	4,966,625
2036	Principal	-	3,250,000	4,315,000	7,565,000
	Interest	-	1,711,500	2,886,125	4,597,625
2037	Principal	-	3,415,000	4,540,000	7,955,000
	Interest	-	1,544,875	2,664,750	4,209,625
2038	Principal	-	3,585,000	4,775,000	8,360,000
	Interest	-	1,369,875	2,431,875	3,801,750
2039	Principal	-	3,765,000	5,025,000	8,790,000
	Interest	-	1,186,125	2,186,875	3,373,000
2040	Principal	-	3,950,000	5,290,000	9,240,000
	Interest	-	993,250	1,929,000	2,922,250
2041	Principal	-	4,150,000	5,565,000	9,715,000
	Interest	-	790,750	1,657,625	2,448,375
2042	Principal	-	4,360,000	5,855,000	10,215,000
	Interest	-	578,000	1,372,125	1,950,125
2043	Principal	-	4,575,000	6,165,000	10,740,000
	Interest	-	354,625	1,071,625	1,426,250
2044	Principal	-	4,805,000	6,485,000	11,290,000
	Interest	-	120,125	755,375	875,500
2045	Principal	-	-	11,865,000	11,865,000
	Interest	-	-	296,625	296,625
Total Principal		6,475,000	110,440,000	100,000,000	216,915,000
Total Interest		212,358	59,765,087	89,312,500	149,289,945
Total Future Debt Payments		6,687,358	170,205,087	189,312,500	366,204,945

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**SCHEDULE OF FUTURE DEBT PAYMENTS**

**DECEMBER 31, 2018**

**(Unaudited)**

		<b>Drainage Special Tax Bonds</b>	
		<b>Series</b>	<b>All Bonds</b>
		<b>2014</b>	<b>Issues</b>
2019	Principal	\$ 1,815,000	\$ 1,815,000
	Interest	213,550	213,550
2020	Principal	1,895,000	1,895,000
	Interest	140,950	140,950
2021	Principal	1,955,000	1,955,000
	Interest	84,100	84,100
2022	Principal	2,000,000	2,000,000
	Interest	45,000	45,000
Total Principal		7,665,000	7,665,000
Total Interest		483,600	483,600
Total Future Debt Payments		<u>\$ 8,148,600</u>	<u>\$ 8,148,600</u>

**SEWERAGE & WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF FUTURE DEBT PAYMENTS**  
**DECEMBER 31, 2018**  
(Unaudited)

		All Departments			
		Water	Sewer	Drainage	Total
2019	Principal	\$ 3,575,000	\$ 11,510,000	\$ 1,815,000	\$ 16,900,000
	Interest	9,819,550	10,170,829	213,550	20,203,929
2020	Principal	3,825,000	12,099,000	1,895,000	17,819,000
	Interest	9,648,550	9,600,496	140,950	19,389,996
2021	Principal	4,005,000	11,493,000	1,955,000	17,453,000
	Interest	9,466,250	9,030,771	84,100	18,581,121
2022	Principal	4,195,000	9,892,000	2,000,000	16,087,000
	Interest	9,275,350	8,516,402	45,000	17,836,752
2023	Principal	4,385,000	6,371,000	-	10,756,000
	Interest	9,085,000	8,130,265	-	17,215,265
2024	Principal	4,605,000	6,216,000	-	10,821,000
	Interest	8,865,750	7,836,237	-	16,701,987
2025	Principal	4,835,000	4,555,000	-	9,390,000
	Interest	8,635,500	7,587,810	-	16,223,310
2026	Principal	5,075,000	4,769,000	-	9,844,000
	Interest	8,393,750	7,375,740	-	15,769,490
2027	Principal	5,330,000	4,994,000	-	10,324,000
	Interest	8,140,000	7,152,902	-	15,292,902
2028	Principal	5,600,000	5,233,000	-	10,833,000
	Interest	7,873,500	6,918,665	-	14,792,165
2029	Principal	5,875,000	5,483,000	-	11,358,000
	Interest	7,593,500	6,672,412	-	14,265,912
2030	Principal	6,170,000	5,732,000	-	11,902,000
	Interest	7,299,750	6,423,318	-	13,723,068
2031	Principal	6,480,000	5,987,000	-	12,467,000
	Interest	6,991,250	6,171,654	-	13,162,904
2032	Principal	6,805,000	6,251,000	-	13,056,000
	Interest	6,667,250	5,908,044	-	12,575,294
2033	Principal	7,145,000	6,545,000	-	13,690,000
	Interest	6,327,000	5,619,912	-	11,946,912
2034	Principal	7,500,000	6,855,000	-	14,355,000
	Interest	5,969,750	5,306,738	-	11,276,488
2035	Principal	7,875,000	7,195,000	-	15,070,000
	Interest	5,594,750	4,966,625	-	10,561,375
2036	Principal	8,270,000	7,565,000	-	15,835,000
	Interest	5,201,000	4,597,625	-	9,798,625
2037	Principal	8,685,000	7,955,000	-	16,640,000
	Interest	4,787,500	4,209,625	-	8,997,125
2038	Principal	9,120,000	8,360,000	-	17,480,000
	Interest	4,353,250	3,801,750	-	8,155,000
2039	Principal	9,575,000	8,790,000	-	18,365,000
	Interest	3,897,250	3,373,000	-	7,270,250
2040	Principal	10,050,000	9,240,000	-	19,290,000
	Interest	3,418,500	2,922,250	-	6,340,750
2041	Principal	10,555,000	9,715,000	-	20,270,000
	Interest	2,916,000	2,448,375	-	5,364,375
2042	Principal	11,080,000	10,215,000	-	21,295,000
	Interest	2,388,250	1,950,125	-	4,338,375
2043	Principal	11,635,000	10,740,000	-	22,375,000
	Interest	1,834,250	1,426,250	-	3,260,500
2044	Principal	12,220,000	11,290,000	-	23,510,000
	Interest	1,252,500	875,500	-	2,128,000
2045	Principal	12,830,000	11,865,000	-	24,695,000
	Interest	641,500	296,625	-	938,125
Total Principal		197,300,000	216,915,000	7,665,000	421,880,000
Total Interest		166,336,450	149,289,945	483,600	316,109,995
Total Future Debt Payments		\$ 363,636,450	\$ 366,204,945	\$ 8,148,600	\$ 737,989,995

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**PROPERTY VALUE, NEW CONSTRUCTION AND BANK DEPOSITS**  
**Last Ten Fiscal Years**  
**(Unaudited)**

Fiscal Year	New Commercial Construction (1)		New Residential Construction (1)		Bank deposits (2) (in thousands)
	Number of units	Value (in thousands)	Number of units	Value (in thousands)	
2009	364	\$ 220,748	1,862	\$ 227,714	\$ 10,480,561
2010	349	549,906	1,102	160,331	12,175,831
2011	365	266,981	1,047	161,875	10,024,118
2012					10,862,390
2013					15,738,913
2014					16,043,233
2015					11,211,760
2016					16,706,112
2017					16,701,964
2018					15,293,912

(1) City of New Orleans (2011 latest year for which information is available).

(2) Summary of Deposits (as of June 30, 2018) - bank branches located in New Orleans, Federal Depository Insurance Corpora

SEWERAGE AND WATER BOARD OF NEW ORLEANS  
ANNUAL REPORT 2018 - FOR THE CALENDAR YEAR ENDING DECEMBER 31, 2018  
CAPITAL ASSET STATISTICS BY FUNCTION  
Last Ten Fiscal Years  
(Unaudited)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Water:</b>										
<b>Water Lines [miles]</b>	1,587	1,590	1,597	1,599	1,805	1,812	1,819	1,823	1,826	1,834
<b>Water Manholes</b>	29,741	29,957	30,150	30,194	30,297	30,402	30,463	30,508	30,586	30,650
<b>Water Valves</b>	29,277	29,366	29,611	29,521	29,629	29,730	29,791	29,831	29,940	29,990
<b>Fire Hydrants</b>	22,894	22,989	23,045	23,078	23,099	23,117	23,130	23,146	23,214	23,264
<b>Sewer:</b>										
<b>Sewer Lines [miles]</b>	1,512	1,518	1,519	1,520	1,536	1,547	1,561	1,568	1,585	1,602
<b>Sewer Manholes</b>	22,998	23,047	22,977	22,983	22,987	23,042	23,051	23,115	23,158	23,208

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**NUMBER OF ACTIVE EMPLOYEES**  
Last Ten Fiscal Years  
(Unaudited)

<b>Year</b>	<b>Number of Active Employees</b>
<b>2018</b>	<b>1210</b>
<b>2017</b>	<b>1083</b>
<b>2016</b>	<b>1108</b>
<b>2015</b>	<b>1183</b>
<b>2014</b>	<b>1060</b>
<b>2013</b>	<b>1025</b>
<b>2012</b>	<b>991</b>
<b>2011</b>	<b>994</b>
<b>2010</b>	<b>974</b>
<b>2009</b>	<b>964</b>

**Source: Sewerage and Water Board of New Orleans.**

# SUPPLEMENTAL SECTION



A tour of the “green roof” at SWBNO’s St. Joseph Street headquarters in downtown New Orleans. Green infrastructure to complement the city’s drainage system is an emerging priority of this utility.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**December 31, 2018**

**ACTUAL CAPITAL EXPENDITURES**

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**WATER DEPARTMENT**

**C.P.#**      **WATERWORKS**

110	Normal Extension & Replacement	\$ 10,421,827.95
112	Modifications to Oak St. Raw Water Intake Station	4,230.36
122	Sycamore and Claiborne Filter Rehabilitation	5,204,781.14
156	Advanced Water Treatment (Carrollton)	478,187.49
157	Advanced Water Treatment (Algiers)	592,109.06
159	Water Plant Security Improvements	67,767.00
175	Water Hurricane Recovery Bonds	38,565,189.60
180	FEMA Review of Change Orders - Water	(24,217,551.62)
	<b>TOTAL WATERWORKS</b>	<b><u>\$ 31,116,540.98</u></b>

**WATER DISTRIBUTION**

214	Normal Extension & Replacement	\$ 1,176,463.83
216	Water System Replacement Program	1,616,007.76
239	Mains DPW Contracts	2,728,115.64
	<b>TOTAL WATER DISTRIBUTION</b>	<b><u>\$ 5,520,587.23</u></b>

**POWER PROJECTS AND GENERAL BUDGET**

600	Water Share of Power Projects	\$ 17,483,242.43
700	Water Reserve for Emergencies	3,000,144.04
800	Water Share of General Budget Items	9,419,885.86
	<b>GENERAL BUDGET</b>	<b><u>\$ 29,903,272.33</u></b>
	<b>TOTAL WATER DEPARTMENT</b>	<b><u><u>\$ 66,540,400.54</u></u></b>

NOTE: These figures do not include proration of interest expense.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**December 31, 2018**  
**ACTUAL CAPITAL EXPENDITURES**

**SEWERAGE DEPARTMENT**

<u>C.P.#</u>	<u>SEWERAGE SYSTEM</u>		
310	Ext & Replace - Gravity Mains EPA Consent Decree	\$	1,358,899.06
313	Ext & Replace - Sewer Force Mains EPA Consent Decree		1,380,413.56
317	Ext & Replace - Gravity Mains EPA Consent Decree		7,694,215.81
318	Rehabilitation Gravity Sewer System		5,933,123.66
326	Ext. Rep to plumbing Stations EPA Consent Decree		489,058.63
339	Main in Streets Dept. Contracts		3,793,231.23
340	Sewerage Hurricane Recovery Bonds (FEMA)		1,771,297.75
348	Normal Extensions & Replacements		11,757,315.87
368	Wetlands Assimilation Project		26,510.99
375	Sewerage Hurricane Recovery Bonds		6,021,849.18
380	FEMA Review of Change Orders-Sewer		(1,297,021.36)
	 TOTAL SEWERAGE SYSTEM	 \$	 <u>38,928,894.38</u>
 <b><u>POWER PROJECTS AND GENERAL BUDGET</u></b>			
600	Sewerage Share of Power Projects	\$	8,317,188.62
800	Sewerage Share of General Budget Items		11,163,510.98
	 TOTAL GENERAL BUDGET	 \$	 <u>19,480,699.60</u>
	 TOTAL SEWERAGE DEPARTMENT	 \$	 <u><u>58,409,593.98</u></u>

NOTE: These figures do not include proration of interest expense.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**December 31, 2018**  
**ACTUAL CAPITAL EXPENDITURES**

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**DRAINAGE DEPARTMENT**

<b><u>C.P.#</u></b>	<b><u>CANALS</u></b>	
418	Normal Extension & Replacements	\$ 19,993.50
439	Major Drainage Participation in DPW Projects	225,572.66
466	Louisiana Avenue Canal (SELA)	5,604,845.50
471	SELA Program Management	1,551,812.98
478	S. Claiborne-Lowerline to Monticello Street	1,195,599.04
480	FEMA Review of Change Orders-Drainage	(2,134,618.01)
497	Florida Ave. Canal - DPS#19 to Peoples Ave. (SELA-B)	616,111.50
498	Dwyer Intake Canal (St. Charles to Dwyer (DPS))(SELA-A)	18,990.11
499	Jefferson Avenue Canal	449,552.90
	<b>TOTAL DRAINAGE CANALS</b>	<b>\$ 7,547,860.18</b>
	<b><u>PUMPING STATIONS</u></b>	
511	Normal Extension & Rep./Stations	\$ 9,878,742.54
535	DPS #6 Improvements	436,344.83
575	Drainage Hurricane Recovery Bonds	1,420,692.24
	<b>TOTAL DRAINAGE PUMPING STATIONS</b>	<b>\$ 11,735,779.61</b>
	<b><u>POWER PROJECTS AND GENERAL BUDGET</u></b>	
600	Drainage Share of Power Projects	\$ 24,758,348.68
800	Drainage Share of General Budget Items	6,556,103.98
	<b>TOTAL GENERAL BUDGET</b>	<b>\$ 31,314,452.66</b>
	<b>TOTAL DRAINAGE DEPARTMENT</b>	<b>\$ 50,598,092.45</b>

NOTE: These figures do not include proration of interest expense.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**December 31, 2018**  
**ACTUAL CAPTIAL EXPENDITURES**

**POWER PROJECTS**

<u>C.P.#</u>	<u>POWER PROJECTS</u>	<u>Water</u>	<u>Sewerage</u>	<u>Drainage</u>	<u>Total</u>
612	Furnish Generators for Drainage Facilities	\$ -	\$ -	\$ 320,146.10	\$ 320,146.10
613	Modification of Steam System	14,067.90	8,440.74	5,627.16	28,135.80
624	Extension and Replacements to Electrical System	390,120.60	371,303.44	221,717.97	983,142.01
676	Modification to Power Generating System (HMGP)	17,079,053.93	7,937,444.44	24,210,857.45	49,227,355.82
701	Water Reserve for Emergencies	3,000,144.04			3,000,144.04
<b>TOTAL POWER PROJECTS</b>		<b><u>\$ 20,483,386.47</u></b>	<b><u>\$ 8,317,188.62</u></b>	<b><u>\$ 24,758,348.68</u></b>	<b><u>\$ 53,558,923.77</u></b>

NOTE: These figures do not include proration of interest expense.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

December 31, 2018

**ACTUAL CAPITAL EXPENDITURES**

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**GENERAL BUDGET ITEMS**

<u>C.P.#</u>	<u>General Budget Items</u>	<u>Water</u>	<u>Sewerage</u>	<u>Drainage</u>	<u>Total</u>
807	Improvements to Central Yard and St. Joseph St.	\$ 822,574.65	\$ 822,574.59	\$ 643,781.27	\$ 2,288,930.51
810	Major Equipment Purchases	1,627,990.98	1,627,990.99	1,627,990.98	4,883,972.95
812	Computer Systems Development	639,558.63	639,558.58	504,117.97	1,783,235.18
820	Overhead Charged to Capital	4,995,603.08	6,995,096.63	3,277,902.08	15,268,601.79
823	Purchase of Water Meters	180,937.48	180,937.47		361,874.95
824	Meter Boxes and Meter Parts	509,644.63	509,644.49		1,019,289.12
843	Minor Equipment Purchases	355,101.80	355,101.64	355,101.80	1,065,305.24
862	Fire Hydrants and Related Parts	270,343.00	14,475.00		284,818.00
875	Project Delivery Unit Expenses	18,131.61	18,131.59	18,131.61	54,394.81
879	Green Infrastructure			129,078.27	129,078.27
	TOTAL GENERAL BUDGET ITEMS	<u>\$9,419,885.86</u>	<u>\$11,163,510.98</u>	<u>\$6,556,103.98</u>	<u>\$ 27,139,500.82</u>

NOTE: These figures do not include proration of interest expense.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
ANALYSIS OF PUMPING AND POWER DEPARTMENT  
POWER PURCHASED AND PRODUCED  
NATURAL GAS AND FUEL OIL CONSUMED  
TEN YEARS 2009 THROUGH 2018**

YEAR	ELECTRIC POWER PURCHASED		ESTIMATED ELECTRIC POWER GENERATED BY THE S&WB		NATURAL GAS & FUEL OIL USED TO GENERATE ELECTRIC POWER			
	KW-HRS	\$ AMOUNT	KW-HRS	\$ AMOUNT	NATURAL GAS		FUEL OIL	
					MCF	\$ AMOUNT	GALLONS	\$ AMOUNT
2009	67,889,778	\$6,422,589	37,716,720	\$10,651,094	1,449,540	\$10,651,094	0	\$0
2010	70,609,461	\$6,653,752	39,090,720	\$9,719,013	1,332,770	\$9,669,414	12,883	\$49,600
2011	70,049,094	\$6,180,373	27,351,600	\$10,721,624	1,552,330	\$10,721,356	315	\$268
2012	63,873,900	\$5,941,992	44,819,460	\$9,180,160	1,605,720	\$9,174,678	1,459	\$5,482
2013	67,980,940	\$6,725,811	35,005,422	\$11,648,150	1,830,890	\$11,648,148	9	\$34
2014	68,632,618	\$7,052,078	32,407,296	\$12,442,213	1,643,347	\$12,442,282	9	\$69
2015	73,123,062	\$6,660,862	29,217,520	\$9,483,132	1,780,110	\$9,483,132	0	\$0
2016	69,736,118	\$7,081,051	33,182,519	\$9,082,988	1,854,370	\$9,082,988	0	\$0
2017	70,728,827	\$7,969,494	32,540,663	\$10,183,627	1,817,671	\$10,183,627	84,040	\$252,120
2018	72,722,564	\$7,985,028	34,262,650	\$10,476,819	1,896,920	\$10,476,819	0	\$0
<b>TOTALS</b>	<b>695,346,362</b>	<b>68,673,030</b>	<b>345,594,570</b>	<b>103,588,819</b>	<b>16,763,668</b>	<b>103,533,537</b>	<b>98,715</b>	<b>307,572</b>

**SEWERAGE AND WATER BOARD OF NEW  
ORLEANS POWER PURCHASED AND  
PRODUCED  
NATURAL GAS AND FUEL OIL CONSUMED - 2018**

	KW-HOURS	COST
ELECTRIC POWER PURCHASED	72,722,564	\$7,985,028.21
ELECTRIC AND STEAM POWER GENERATED BY THE S.& W.B.*	34,262,650	\$10,476,818.82
TOTAL	106,985,214	\$18,461,847.03

NOTE: \*NATURAL GAS CONSUMED IN OPERATION WAS 1,896,920 MCF  
AT A COST OF \$10,476,819. FUEL OIL CONSUMED WAS 0 GALLONS  
AT A COST OF \$0

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**PAY WATER CONSUMPTION (IN GALLONS)**  
**December 31, 2018**

<u>Month</u>	<u>Consumption</u>
January	980,095,400
February	1,020,374,000
March	1,118,645,600
April	906,431,300
May	957,630,000
June	890,082,400
July	998,092,900
August	1,202,002,700
September	1,146,198,300
October	1,351,968,600
November	1,067,222,300
December	<u>1,024,741,700</u>
<b>Total Customer Water Metered</b>	<b><u><u>12,663,485,200</u></u></b>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**MONTHLY WATER CHARGES COLLECTED - 2018**

<u>Months</u>	<u>Water Service Charges &amp; Fees</u>	<u>Delinquent Fees</u>	<u>Total</u>
January	\$ 6,337,561	\$ 46,835	\$ 6,384,396
February	6,485,484	32,656	6,518,140
March	7,777,853	35,236	7,813,089
April	7,233,873	18,097	7,251,970
May	6,949,781	15,720	6,965,501
June	6,136,949	13,531	6,150,480
July	6,913,765	10,871	6,924,636
August	8,506,938	40,961	8,547,899
September	5,682,593	49,523	5,732,116
October	8,453,533	89,783	8,543,316
November	7,515,785	95,375	7,611,160
December	6,883,864	99,417	6,983,281
	<u>\$ 84,877,979</u>	<u>\$ 548,005</u>	<u>\$ 85,425,984</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**MONTHLY SEWERAGE CHARGES COLLECTED - 2018**

<u>Months</u>	<u>Sewerage Service Charges</u>	<u>Delinquent Fees</u>	<u>Total</u>
January	\$ 6,935,022	\$ 55,118	\$ 6,990,140
February	7,125,459	40,926	7,166,385
March	8,743,857	41,957	8,785,814
April	8,381,499	21,831	8,403,330
May	8,830,640	18,079	8,848,719
June	7,122,277	13,688	7,135,965
July	7,463,188	12,922	7,476,110
August	9,133,585	49,328	9,182,913
September	6,867,583	64,599	6,932,182
October	9,302,746	107,035	9,409,781
November	8,152,232	123,716	8,275,948
December	7,824,529	128,698	7,953,227
	<u>\$ 95,882,617</u>	<u>\$ 222,404</u>	<u>\$ 96,560,514</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**TABLE I**

**CARROLLTON TURBIDITIES**

	River (NTU)					Effluent Settling Reservoirs (NTU)					Filters (NTU)				
	2015	2016	2016	2017	2018	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
Maximum	277	273	271	345	242	12	6.9	14	10	17	0.24	0.21	0.31	0.33	0.34
Minimum	8	7	13	6	8	0.9	1.0	0.9	1.0	0.7	0.05	0.07	0.07	0.04	0.05
Average	75	71	63	86	62	2.7	2.3	2.9	2.8	2.5	0.11	0.10	0.13	0.13	0.13

**TABLE II**

**CARROLLTON ALKALINITIES**

PARTS PER MILLION

	River					Effluent Settling Reservoirs					Filters				
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
Maximum	146	160	201	161	164	140	160	205	152	152	157	190	230	188	184
Minimum	75	75	81	95	65	54	56	60	74	57	78	82	87	104	86
Average	109	116	130	124	117	93	105	118	113	105	120	128	146	139	131

**TABLE II A**

**CARROLLTON HARDNESS**

PARTS PER MILLION

	NON-CARBONATE HARDNESS										TOTAL HARDNESS									
	RIVER					FILTERS					RIVER					FILTERS				
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
Maximum	74	90	86	79	68	101	81	102	132	75	211	233	272	211	229	225	245	304	245	235
Minimum	14	14	12	21	11	25	12	11	20	14	91	106	108	127	98	132	115	127	142	122
Average	46	43	40	42	37	57	51	48	49	45	155	159	169	166	154	177	178	197	189	176

**TABLE III**

**CARROLLTON BACTERIAL CHARACTERISTICS**

TOTAL COLIFORM ANALYSIS

2018	River	Plant Tap	Distribution System
Maximum (Colonies / 100 ml)	1,230	2	>200
Minimum (Colonies / 100 ml)	85	0	0
Average (colonies / 100 ml)	640	0	0
Number of Samples	237	365	1,916
Number of Samples Negative	0	360	1,899
Number of Samples Positive	237	5	17*

\* None of these 17 total coliform positive samples was *E. coli* positive, and none resulted in a violation of the Total Coliform Rule.

**TABLE IV-A**

**PRINCIPLE RESULTS OF OPERATION OF THE G3 CONVENTIONAL UNIT AT THE  
CARROLLTON WATER PURIFICATION PLANT FOR THE YEAR ENDING: December 31, 2018**

1	2	3	4	5	6	7	8	9	10	11	12	13
Month		Volume of Water Treated During Month (Millions of Gallons)	Volume of Water Treated (Millions of Gallons Per Day)	Total Pounds of Polymer Used at Intake During Month	Polymer Used at Intake (ppm)	Total Pounds of Polymer Used in Plant During Month	Polymer Used in Plant (ppm)	Total Pounds of Pure Iron (Fe) Used During Month	Pure Iron (Fe) (ppm)	Turbidity of River Water (NTU)	Alkalinity of River Water (ppm as CaCO <sub>3</sub> )	Turbidity of Unit Effluent (NTU)
January	Max	0.00								166	140	
	Min									33	101	
	Avg									70	115	
February	Max	0.00								174	112	
	Min									80	83	
	Avg									108	100	
March	Max	0.00								191	87	
	Min									44	65	
	Avg									98	79	
April	Max	0.00								81	96	
	Min									42	86	
	Avg									62	92	
May	Max	0.00								64	129	
	Min									26	92	
	Avg									41	105	
June	Max	0.00								61	130	
	Min									15	110	
	Avg									32	119	
July	Max	0.00								84	150	
	Min									22	114	
	Avg									48	130	
August	Max	0.00								27	164	
	Min									8	135	
	Avg									16	151	
September	Max	0.00								242	144	
	Min									11	117	
	Avg									66	133	
October	Max	0.00								188	140	
	Min									39	115	
	Avg									83	125	
November	Max	0.00								96	145	
	Min									31	115	
	Avg									62	129	
December	Max	0.00								111	132	
	Min									35	106	
	Avg									61	122	
Annual	Total	0.00										
	Max	0.00								242	164	
	Min	0.00								8	65	
	Avg	0.00								62	117	

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
December 31, 2018

**TABLE IV-B**

**PRINCIPLE RESULTS OF OPERATION OF THE G4 CONVENTIONAL UNIT AT THE  
CARROLLTON WATER PURIFICATION PLANT FOR THE YEAR ENDING: December 31, 2018**

1	2	3	4	5	6	7	8	9	10	11	12	13
Month		Volume of Water Treated During Month (Millions of Gallons)	Volume of Water Treated (Millions of Gallons Per Day)	Total Pounds of Polymer Used at Intake During Month	Polymer Used at Intake (ppm)	Total Pounds of Polymer Used in Plant During Month	Polymer Used in Plant (ppm)	Total Pounds of Pure Iron (Fe) Used During Month	Pure Iron (Fe) (ppm)	Turbidity of River Water (NTU)	Alkalinity of River Water (ppm as CaCO <sub>3</sub> )	Turbidity of Unit Effluent (NTU)
January	Max		95.25		0.00		5.05		5.60	166	140	8.7
	Min	2,718.17	83.71	0	0.00	90,864	3.45	105,674	3.98	33	101	1.8
	Avg		87.68		0.00		4.02		4.67	70	115	3.7
February	Max		90.71		0.00		5.31		6.29	174	112	7.0
	Min	2,390.71	79.50	0	0.00	92,853	3.91	109,911	4.59	80	83	1.5
	Avg		85.38		0.00		4.67		5.52	108	100	3.1
March	Max		84.88		0.00		5.89		7.00	191	87	4.7
	Min	2,428.33	72.04	0	0.00	104,370	4.86	123,351	5.74	44	65	1.7
	Avg		78.33		0.00		5.16		6.09	98	79	2.8
April	Max		82.88		0.00		5.67		6.67	81	96	5.7
	Min	2,382.13	67.58	0	0.00	101,639	4.66	119,742	5.67	42	86	1.3
	Avg		79.40		0.00		5.12		6.03	62	92	2.3
May	Max		82.67		0.00		5.11		5.71	64	129	3.9
	Min	2,470.88	75.63	0	0.00	90,182	3.86	101,986	4.49	26	92	1.2
	Avg		79.71		0.00		4.38		4.95	41	105	2.4
June	Max		83.29		0.00		4.36		4.83	61	130	4.5
	Min	2,377.54	75.92	0	0.00	81,719	3.84	90,940	4.30	15	110	0.7
	Avg		79.25		0.00		4.12		4.59	32	119	2.3
July	Max		81.83		0.00		4.30		4.77	84	150	6.6
	Min	2,461.96	75.83	0	0.00	84,375	3.56	94,028	4.42	22	114	1.0
	Avg		79.42		0.00		4.11		4.58	48	130	2.7
August	Max		84.38		0.00		4.17		4.61	27	164	5.8
	Min	2,508.54	78.75	0	0.00	83,055	3.40	92,332	3.94	8	135	0.9
	Avg		80.92		0.00		3.97		4.41	16	151	2.6
September	Max		82.58		0.00		3.76		4.19	242	144	4.6
	Min	2,400.75	76.75	0	0.00	71,548	3.43	79,468	3.80	11	117	0.9
	Avg		80.03		0.00		3.57		3.97	66	133	1.9
October	Max		87.13		0.00		4.74		5.29	188	140	4.0
	Min	2,525.75	76.21	0	0.00	80,694	3.45	89,627	3.83	39	115	0.7
	Avg		81.48		0.00		3.82		4.25	83	125	2.3
November	Max		83.42		0.00		5.11		5.69	96	145	4.2
	Min	2,397.21	77.33	0	0.00	92,191	4.31	102,581	4.89	31	115	1.0
	Avg		79.91		0.00		4.61		5.13	62	129	2.4
December	Max		83.75		0.00		5.30		5.97	111	132	8.1
	Min	2,511.58	77.63	0	0.00	104,684	4.72	116,417	5.21	35	106	1.0
	Avg		81.02		0.00		5.00		5.56	61	122	2.6
Annual	Total	29,573.54		0		1,078,172		1,226,057				
	Max	2,718.17	95.25	0	0.00	104,684	5.89	123,351	7.00	242	164	8.7
	Min	2,377.54	67.58	0	0.00	71,548	3.40	79,468	3.80	8	65	0.7
	Avg	2,464.46	81.02	0	0.00	89,848	4.37	102,171	4.97	62	117	2.6

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

December 31, 2018

**TABLE IV-C**

**PRINCIPLE RESULTS OF OPERATION OF THE L3 CONVENTIONAL UNIT AT THE  
CARROLLTON WATER PURIFICATION PLANT FOR THE YEAR ENDING: December 31, 2018**

1	2	3	4	5	6	7	8	9	10	11	12	13
Month		Volume of Water Treated During Month (Millions of Gallons)	Volume of Water Treated (Millions of Gallons Per Day)	Total Pounds of Polymer Used at Intake During Month	Polymer Used at Intake (ppm)	Total Pounds of Polymer Used in Plant During Month	Polymer Used in Plant (ppm)	Total Pounds of Pure Iron (Fe) Used During Month	Pure Iron (Fe) (ppm)	Turbidity of River Water (NTU)	Alkalinity of River Water (ppm as CaCO <sub>3</sub> )	Turbidity of Unit Effluent (NTU)
January	Max		66.17		0.00		5.23		5.86	166	140	17.0
	Min	1,917.89	58.23	0	0.00	66,018	3.06	74,061	3.43	33	101	2.0
	Avg		61.87		0.00		4.14		4.64	70	115	4.0
February	Max		66.58		0.00		4.76		5.34	174	112	6.1
	Min	1,761.42	57.54	0	0.00	62,813	3.80	70,573	4.28	80	83	1.6
	Avg		62.91		0.00		4.28		4.81	108	100	3.4
March	Max		62.79		0.00		5.28		5.92	191	87	4.9
	Min	1,777.33	51.29	0	0.00	68,824	4.35	77,136	4.84	44	65	1.6
	Avg		57.33		0.00		4.65		5.21	98	79	3.2
April	Max		59.88		0.00		5.20		5.80	81	96	3.4
	Min	1,629.75	45.63	0	0.00	62,914	4.30	70,464	4.83	42	86	1.5
	Avg		54.33		0.00		4.64		5.19	62	92	2.4
May	Max		62.42		0.00		4.60		5.15	64	129	3.7
	Min	1,805.00	54.88	0	0.00	57,535	3.35	64,983	3.77	26	92	0.9
	Avg		58.23		0.00		3.82		4.32	41	105	2.0
June	Max		61.25		0.00		3.93		4.40	61	130	2.4
	Min	1,727.50	51.88	0	0.00	51,333	3.39	57,586	3.87	15	110	0.9
	Avg		57.58		0.00		3.56		4.00	32	119	1.5
July	Max		61.21		0.00		3.97		4.50	84	150	3.2
	Min	1,795.89	52.75	0	0.00	53,781	3.26	60,994	3.75	22	114	0.8
	Avg		57.93		0.00		3.59		4.07	48	130	1.8
August	Max		67.29		0.00		3.70		4.20	27	164	2.3
	Min	1,874.13	54.83	0	0.00	53,319	2.96	60,378	3.35	8	135	1.2
	Avg		60.46		0.00		3.42		3.87	16	151	1.6
September	Max		62.71		0.00		3.27		3.61	242	144	2.9
	Min	1,760.67	53.50	0	0.00	44,307	2.84	50,040	3.24	11	117	1.2
	Avg		58.69		0.00		3.02		3.41	66	133	1.7
October	Max		67.35		0.00		3.57		4.03	188	140	4.5
	Min	1,880.06	53.29	0	0.00	50,412	2.90	56,845	3.29	39	115	1.3
	Avg		60.65		0.00		3.20		3.61	83	125	2.5
November	Max		65.71		0.00		3.91		4.37	96	145	5.5
	Min	1,833.38	57.04	0	0.00	53,910	3.27	60,009	3.63	31	115	1.3
	Avg		61.11		0.00		3.53		3.92	62	129	2.3
December	Max		62.79		0.00		4.12		4.64	111	132	4.2
	Min	1,874.96	57.88	0	0.00	59,872	3.66	68,821	4.15	35	106	1.4
	Avg		60.48		0.00		3.83		4.40	61	122	2.7
Annual	Total	21,637.97		0		685,039		771,889				
	Max	1,917.89	67.35	0	0.00	68,824	5.28	77,136	5.92	242	164	17.0
	Min	1,629.75	45.63	0	0.00	44,307	2.84	50,040	3.24	8	65	0.8
	Avg	1,803.16	59.28	0	0.00	57,087	3.80	64,324	4.28	62	117	2.4

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
December 31, 2018

**TABLE IV-D**

**PRINCIPLE RESULTS OF OPERATION OF THE L4 CONVENTIONAL UNIT AT THE  
CARROLLTON WATER PURIFICATION PLANT FOR THE YEAR ENDING: December 31, 2018**

1	2	3	4	5	6	7	8	9	10	11	12	13
Month		Volume of Water Treated During Month (Millions of Gallons)	Volume of Water Treated (Millions of Gallons Per Day)	Total Pounds of Polymer Used at Intake During Month	Polymer Used at Intake (ppm)	Total Pounds of Polymer Used in Plant During Month	Polymer Used in Plant (ppm)	Total Pounds of Pure Iron (Fe) Used During Month	Pure Iron (Fe) (ppm)	Turbidity of River Water (NTU)	Alkalinity of River Water (ppm as CaCO <sub>3</sub> )	Turbidity of Unit Effluent (NTU)
January	Max	0.00								166	140	
	Min									33	101	
	Avg									70	115	
February	Max	0.00								174	112	
	Min									80	83	
	Avg									108	100	
March	Max	0.00								191	87	
	Min									44	65	
	Avg									98	79	
April	Max	0.00								81	96	
	Min									42	86	
	Avg									62	92	
May	Max	0.00								64	129	
	Min									26	92	
	Avg									41	105	
June	Max	0.00								61	130	
	Min									15	110	
	Avg									32	119	
July	Max	0.00								84	150	
	Min									22	114	
	Avg									48	130	
August	Max	0.00								27	164	
	Min									8	135	
	Avg									16	151	
September	Max	0.00								242	144	
	Min									11	117	
	Avg									66	133	
October	Max	0.00								188	140	
	Min									39	115	
	Avg									83	125	
November	Max	0.00								96	145	
	Min									31	115	
	Avg									62	129	
December	Max	0.00								111	132	
	Min									35	106	
	Avg									61	122	
Annual	Total	0.00										
	Max	0.00								242	164	
	Min	0.00								8	65	
	Avg	0.00								62	117	

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
December 31, 2018

**TABLE IV-E**

**MONTHLY SUMMARY OF COMBINED OPERATION OF CONVENTIONAL UNITS AT THE  
CARROLLTON WATER PURIFICATION PLANT FOR THE YEAR ENDING: December 31, 2018**

1 Month	2	3 Volume of Water Treated During Month (Millions of Gallons)	4 Volume of Water Treated (Millions of Gallons Per Day)	5 Total Pounds of Polymer Used at Intake During Month	6 Total Pounds of Polymer Used in Plant During Month	7 Total Pounds of Fluoride (100%) Used During Month	8 Fluoride (ppm)	9 Total Pounds of Pure Iron (Fe) Used During Month	10 Total Pounds of Lime Used During Month	11 Lime (ppm)	12 Total Pounds of Chlorine Used During Month	13 Chlorine (ppm)	14 Total Pounds of Anhydrous Ammonia Used During Month	15 Ammonia (ppm)	16 Total Pounds of Polyphosphate Used During Month	17 Poly-phosphate (ppm)	18 Alkalinity of Filtered Water (ppm)	19 Estimated High Lift Pumpage	
																		Total M.G.	M.G.D.
January	Max.		158.08	0	156,882	15,661	0.45	179,735	379,203	23.15	159,110	4.52	37,815	1.13	26,591	0.78	155	4,691	168.71
	Min.	4,636.06	145.17				0.36			5.85		3.61		0.93		0.56	112		134.33
	Avg.		149.55				0.40			9.82		4.12		0.98		0.69	128		151.32
February	Max.		153.67	0	155,666	14,149	0.45	180,484	353,841	11.69	146,041	4.57	34,531	1.14	24,064	0.73	128	4,018	148.25
	Min.	4,152.13	139.75				0.40			7.49		3.92		0.93		0.67	99		135.46
	Avg.		148.29				0.42			10.23		4.22		1.00		0.70	116		143.49
March	Max.		145.17	0	173,194	15,632	0.48	200,487	332,696	11.39	159,776	4.82	39,514	1.19	24,880	0.75	100	4,159	143.50
	Min.	4,205.67	125.00				0.42			0.00		4.33		1.01		0.68	86		125.67
	Avg.		135.67				0.45			9.53		4.56		1.13		0.71	92		134.16
April	Max.		141.00	0	164,554	15,162	0.51	190,206	351,932	12.14	160,001	5.08	38,252	1.26	23,733	0.78	111	3,840	133.58
	Min.	4,011.88	117.71				0.45			8.78		4.54		1.09		0.66	97		120.25
	Avg.		133.73				0.47			10.52		4.78		1.14		0.71	106		128.00
May	Max.		142.83	0	147,717	16,076	0.52	166,969	376,766	11.71	183,593	5.44	43,409	1.30	25,416	0.74	136	4,019	140.21
	Min.	4,275.88	134.38				0.45			8.25		4.79		1.13		0.68	105		121.83
	Avg.		137.93				0.48			10.57		5.15		1.22		0.71	117		129.64
June	Max.		141.58	0	133,051	15,512	0.54	148,526	378,130	12.07	181,437	5.52	43,062	1.31	24,267	0.76	142	3,939	143.00
	Min.	4,105.04	131.04				0.41			9.43		5.15		1.23		0.68	118		118.21
	Avg.		136.83				0.47			11.05		5.30		1.26		0.71	130		131.30
July	Max.		142.50	0	138,156	15,057	0.43	155,022	496,184	98.82	198,989	6.54	46,839	1.44	25,156	0.76	158	4,490	151.29
	Min.	4,257.85	132.46				0.38			9.73		5.20		1.24		0.68	127		136.04
	Avg.		137.35				0.40			13.98		5.60		1.32		0.71	138		144.85
August	Max.		151.67	0	136,374	15,073	0.43	152,710	427,164	12.45	227,776	6.51	49,901	1.42	25,623	0.73	184	4,436	160.58
	Min.	4,382.67	133.88				0.37			9.39		5.95		1.31		0.66	140		135.58
	Avg.		141.38				0.41			11.69		6.23		1.37		0.70	158		143.10
September	Max.		143.71	0	115,855	14,636	0.45	129,508	421,466	13.36	206,682	6.19	45,480	1.36	24,208	0.72	165	4,179	147.42
	Min.	4,161.42	133.83				0.40			10.35		5.06		1.28		0.68	136		131.29
	Avg.		138.71				0.42			12.15		5.96		1.31		0.70	148		139.29
October	Max.		153.26	0	131,106	15,628	0.48	146,472	433,815	13.24	210,965	6.13	46,280	1.34	25,532	0.72	162	4,219	144.75
	Min.	4,405.81	133.21				0.41			8.40		5.45		1.20		0.68	132		127.71
	Avg.		142.12				0.44			11.81		5.75		1.26		0.70	145		136.08
November	Max.		147.42	0	146,100	15,064	0.46	162,589	582,504	24.70	180,589	5.80	41,929	1.26	24,345	0.72	162	4,192	143.54
	Min.	4,230.58	134.71				0.40			2.48		4.76		1.13		0.67	136		133.79
	Avg.		141.02				0.43			16.47		5.12		1.19		0.69	148		139.74
December	Max.		145.67	0	164,556	15,361	0.45	185,238	818,454	28.09	167,855	5.01	41,572	1.24	25,166	0.71	150	4,415	149.29
	Min.	4,386.54	136.54				0.39			12.61		4.28		1.06		0.66	130		132.96
	Avg.		141.50				0.42			22.37		4.59		1.14		0.69	141		142.43
Annual	Total	51,211.51		0	1,763,211	183,012		1,997,946	5,352,155		2,182,814		508,583		298,982			50,596.8	
	Max.	4,636.06	158.08	0	173,194	16,076	0.54	200,487	818,454	98.82	227,776	6.54	49,901	1.44	26,591	0.78	184	4,690.88	168.71
	Min.	4,011.88	117.71	0	115,855	14,149	0.36	129,508	332,696	0.00	146,041	3.61	34,531	0.93	23,733	0.56	86	3,840.00	118.21
	Avg.	4,267.63	140.31	0	146,934	15,251	0.43	166,496	446,013	12.53	181,901	5.11	42,382	1.19	24,915	0.70	131	4,216.40	138.62

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
December 31, 2018

**TABLE V**

**PRINCIPLE RESULTS OF OPERATION OF THE ALGIERS WATER PURIFICATION PLANT FOR THE YEAR ENDING: December 31, 2018**

1 Month	2	3 Low Lift Total Million Gallons of Water Treated During Month	4 Amount of Water Treated Million Gallons Per 24 Hours	5 Total Pounds of Polyelec- trolyte Used During Month	6 Polyelec- trolyte Parts Per Million	7 Total Pounds of Fluoride (100%) Used During Month	8 Fluoride Parts Per Million	9 Total Pounds of Pure Iron (Fe) used During Month	10 Pure Iron (Fe) Parts Per Million	11 Total Pounds of Lime Used During Month	12 Lime Parts Per Million	13 Total Pounds of Anhydrous Ammonia Used During Month	14 Anhydrous Ammonia Parts Per Million	15 Total Pounds Chlorine Used During Month	16 Chlorine Parts Per Million	17 Total Pounds Polyphos- phate Used During Month	18 Polyphos- phate Parts Per Million	19 NTU Turbidity of Clarifier Effluent	20 PPM Clear Well Alkalinity of Filter Effluent	21 High Lift Pumpage											
																				Total M.G.D.	M.G.D.										
January	Max.	378.09	18.00	14,122	4.57	1,690	0.57	20,340	7.54	80,260	45.05	3,272	1.25	18,852	7.16	2,132	0.82	15.0	112	112	346.54	13.53									
	Min.		10.00		2.63		0.40		5.28		14.97		0.82		5.11		0.54		83			9.15									
	Avg.		12.20		4.47		0.50		6.38		25.52		1.04		5.98		0.68		100			11.18									
February	Max.	296.34	12.00	11,188	4.58	1,334	0.59	16,060	7.59	84,719	40.05	2,105	0.88	12,351	5.18	1,750	0.80	5.7	95	95	268.73	10.45									
	Min.		10.00		4.51		0.51		5.28		26.70		0.83		4.92		0.54		60			8.80									
	Avg.		10.58		4.53		0.54		6.49		34.19		0.85		4.99		0.71		82			9.60									
March	Max.	325.83	12.00	12,302	4.58	1,668	0.63	16,720	7.03	57,933	29.95	2,494	0.98	15,392	6.75	2,117	1.07	5.2	76	76	293.48	10.50									
	Min.		10.00		4.51		0.58		5.11		14.96		0.80		5.03		0.54		46			8.33									
	Avg.		10.51		4.53		0.61		6.36		21.23		0.92		5.67		0.78		65			9.47									
April	Max.	312.49	12.92	11,789	4.59	1,608	0.66	16,068	6.94	76,893	41.80	3,040	1.27	13,746	5.44	1,883	0.83	3.8	81	81	285.46	11.32									
	Min.		9.50		4.51		0.58		3.69		14.96		0.90		4.65		0.60		51			8.81									
	Avg.		10.42		4.52		0.64		6.59		30.50		1.17		5.11		0.72		63			9.52									
May	Max.	320.75	12.00	12,129	4.90	1,644	0.64	16,722	6.71	99,822	59.53	3,579	1.54	15,381	6.61	1,984	0.99	11.0	84	84	290.57	9.92									
	Min.		8.00		4.51		0.58		5.28		29.85		1.24		5.29		0.50		41			8.51									
	Avg.		10.35		4.54		0.61		6.24		37.03		1.34		5.76		0.75		58			9.37									
June	Max.	310.67	12.00	11,799	4.59	1,590	0.64	14,597	7.19	155,851	71.70	3,360	1.39	15,111	6.24	2,199	1.09	12.0	76	76	286.08	10.35									
	Min.		8.00		4.53		0.58		4.80		29.86		1.21		5.52		0.67		45			8.93									
	Avg.		10.36		4.56		0.62		5.81		49.87		1.30		5.84		0.86		64			9.54									
July	Max.	323.16	15.67	12,210	4.59	1,634	0.68	16,172	7.07	138,591	70.84	3,667	1.54	17,072	8.98	2,134	1.07	14.0	100	100	292.52	11.74									
	Min.		8.00		4.10		0.46		5.05		39.93		1.27		5.85		0.51		42			8.16									
	Avg.		10.42		4.54		0.61		6.07		52.90		1.36		6.35		0.81		70			9.44									
August	Max.	312.98	12.00	11,877	4.59	1,550	0.67	16,710	7.33	159,292	80.10	3,466	1.44	16,073	6.43	2,066	1.00	11.0	98	98	290.24	10.23									
	Min.		8.00		4.33		0.54		5.37		31.54		1.21		5.56		0.67		58			8.27									
	Avg.		10.10		4.55		0.59		6.62		61.30		1.33		6.16		0.80		74			9.36									
September	Max.	291.01	12.33	11,036	4.59	1,340	0.63	15,510	7.33	119,690	75.12	3,258	1.49	15,161	6.90	1,934	0.99	12.0	110	110	261.04	9.90									
	Min.		8.00		4.47		0.51		5.37		24.98		1.25		5.95		0.61		56			8.30									
	Avg.		9.70		4.55		0.59		6.44		49.30		1.34		6.25		0.81		76			8.70									
October	Max.	303.65	12.00	11,516	4.59	1,484	0.64	15,985	6.98	124,527	58.18	3,410	1.47	15,896	6.88	1,999	0.99	3.6	120	120	286.27	9.85									
	Min.		8.00		4.52		0.52		4.95		40.01		1.21		5.61		0.57		80			8.28									
	Avg.		9.80		4.55		0.59		6.25		49.22		1.35		6.28		0.79		93			9.23									
November	Max.	287.21	12.00	10,881	4.59	1,384	0.63	15,290	7.33	84,932	50.12	2,340	1.18	12,439	6.58	1,734	1.00	6.6	116	116	253.40	9.59									
	Min.		8.00		3.03		0.54		4.95		19.95		0.81		4.78		0.50		85			7.41									
	Avg.		9.59		4.23		0.58		6.45		35.25		0.98		5.19		0.74		104			8.45									
December	Max.	300.54	12.00	11,465	4.92	1,414	0.62	15,070	6.80	83,732	54.99	2,203	0.96	12,743	5.42	2,000	0.89	9.2	120	120	266.00	10.18									
	Min.		9.00		4.52		0.54		5.48		13.55		0.82		4.78		0.67		53			7.83									
	Avg.		9.69		4.57		0.56		5.99		33.34		0.85		5.09		0.81		93			8.58									
Total		3,762.72		142,314		18,340		195,244		1,266,242		36,194		180,217		23,932					3,420.33										
General	Max.	378.09	18.00	14,122	4.92	1,690	0.68	20,340	7.59	159,292	80.10	3,667	1.54	18,852	8.98	2,199	1.09	15.0	120	120	346.54	13.53									
	Min.		8.00		10.881		2.63		1,334		0.40		14,597		3.69		57,933		13.55			2,105	0.80	12,351	4.65	1,734	0.50	0.2	41	253.40	7.41
	Avg.		10.31		11,860		4.54		1,528		0.58		16,270		6.22		105,520		40.35			3,016	1.15	15,018	5.74	1,994	0.76	2.6	78	285.03	9.37

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**December 31, 2018**

TABLE VI-A

MONTHLY SUMMARY OF CARROLLTON WATER PURIFICATION PLANT FILTER OPERATIONS FOR THE YEAR ENDING: December 2018

1	2	3		4		5		6		7		8		9		10		11	
		Total Million Gallons Water Filtered During Month		Total Number of Runs		Length of Runs in Hours		Million Gallons of Water Filtered Per Run		Million Gallons Per Day Per Filter		Total Amount in Million Gallons of Wash Water Used		Million Gallons of Wash Water Used Per Run		Percentage of wash Water Used Per Run		Million Gallons Filtered Per Acre Per Day	
Month		Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New
January	Max.			73	60	296	242	39.050	80.199					0.300	0.600	7.68	1.86		
	Min.	1,652.801	2,923.063			86	137	12.125	32.257	3.216	6.906	21.900	36.000			2.47	0.75	97.882	114.602
	Avg.					169	169	22.641	48.718							1.33	1.23		
February	Max.			64	68	174	257	28.008	66.300					0.306	0.600	1.99	2.58		
	Min.	1,340.163	2,758.031			125	104	15.362	23.500	3.148	5.931	19.600	40.800			1.09	0.90	95.837	98.423
	Avg.					160	164	20.940	40.559							1.46	1.48		
March	Max.			71	74	176	195	29.010	53.750					0.294	0.616	1.44	2.71		
	Min.	1,555.149	2,681.963			135	115	20.500	22.719	3.137	13.120	20.900	45.600			1.01	1.15	95.497	217.715
	Avg.					168	66	21.904	36.243							1.34	1.70		
April	Max.			67	72	238	196	33.010	52.501					0.294	0.600	7.84	3.43		
	Min.	1,441.423	2,398.800			96	114	37.050	17.495	3.150	4.907	19.700	43.200			0.89	1.14	95.897	81.430
	Avg.					164	163	21.514	33.317							1.37	1.80		
May	Max.			65	70	216	334	31.501	68.099					0.329	0.684	11.45	4.99		
	Min.	1,489.553	2,507.888			23	65	28.075	13.708	31.250	5.540	21.400	47.900			1.05	1.00	95.140	91.935
	Avg.					176	155	22.916	35.827							1.44	1.91		
June	Max.			63	64	205	234	40.183	58.890					0.308	0.656	3.42	7.80		
	Min.	1,391.425	2,395.142			68	40	9.000	8.417	4.606	5.325	19.400	42.000			0.77	1.05	140.210	88.355
	Avg.					115	169	22.086	37.424							1.39	1.75		
July	Max.			63	56	239	285	35.875	72.591					0.335	0.611	5.70	2.50		
	Min.	1,496.301	2,485.331			47	95	5.875	24.429	3.215	5.565	21.100	34.200			0.93	0.84	97.855	92.349
	Avg.					177	191	23.751	44.381							1.41	1.38		
August	Max.			54	68	191	247	34.877	75.629					0.389	0.609	3.24	22.15		
	Min.	1,520.178	2,865.822			100	4	12.000	27.500	3.342	5.926	21.000	40.200			1.12	0.81	101.730	231.103
	Avg.					202	176	28.151	43.422							2.02	1.40		
September	Max.			70	68	240	217	48.008	55.535					0.300	0.600	6.15	1.90		
	Min.	1,326.474	2,873.483			39	139	4.875	31.554	2.953	1.750	21.000	40.008			0.62	1.08	89.897	2.887
	Avg.					154	6	18.950	42.257							1.54	1.42		
October	Max.			65	64	240	235	39.674	59.317					0.304	0.600	2.57	1.89		
	Min.	1,382.365	2,603.859			110	142	11.834	31.783	3.056	5.677	19.800	38.400			0.77	1.01	93.035	94.204
	Avg.					167	172	21.267	40.685							1.67	1.47		
November	Max.			74	68	191	233	28.021	60.471					0.300	0.600	10.43	1.86		
	Min.	1,398.007	3,082.664			94	138	2.875	32.220	2.963	6.400	22.200	40.800			1.07	0.99	90.207	106.201
	Avg.					153	170	18.892	45.333							1.53	1.32		
December	Max.			67	80	278	181	36.370	47.944					0.281	0.600	35.97	1.96		
	Min.	1,413.860	2,992.001			40	139	0.780	30.682	2.795	5.848	18.800	48.000			0.77	1.25	85.090	97.034
	Avg.					181	154	21.102	37.400							1.81	1.60		
Total		17,407.699	32,568.047	796	812	5,633	5,843	848.052	1,533.056	66.831	72.895	246.800	497.108	3.740	7.376	128.75	86.06	385.113	1,316.238
General	Max.	1,652.801	3,082.664	74	80	296	334	48.008	80.199	31.250	13.120	22.200	48.000	0.389	0.684	35.97	22.15	140.210	231.103
	Min.	1,326.474	2,395.142	54	56	23	4	0.780	8.417	2.795	1.750	18.800	34.200	0.281	0.600	0.62	0.75	85.090	2.887
	Avg.	1,450.642	2,714.004	66	68	166	146	22.010	40.464	5.569	6.075	20.567	41.426	0.312	0.615	1.53	1.54	98.190	109.687

**TABLE VI-B**

**MONTHLY SUMMARY OF ALGIERS FILTER OPERATIONS FOR THE YEAR ENDING: December 31, 2018**

1	2	3	4	5	6	7	8	9	10
Month		Total Million Gallons Water Filtered During Month of Runs	Total Number of Runs	Length of Runs in Hours	Million Gallons of Water Filtered Per Run	Million Gallons Per Day Per Filter	Total Amount in Million Gallons of Wash Water Used	Million Gallons of Wash Water Used Per Run	Percentage of Wash Water Used Per Run
January	Max.	410.94	65	243	12.928	1.04	8.42	0.126	7.35
	Min.			19	1.709				0.97
	Avg.			146	6.322				1.99
February	Max.	284.74	48	167	9.535	0.86	5.98	0.125	5.01
	Min.			142	2.488				1.30
	Avg.			166	5.932				2.10
March	Max.	280.51	51	167	10.727	0.79	6.17	0.121	5.79
	Min.			167	2.089				1.13
	Avg.			167	5.500				2.20
April	Max.	282.29	51	167	10.335	0.80	6.15	0.121	8.57
	Min.			167	1.408				1.17
	Avg.			167	5.535				2.18
May	Max.	315.41	57	168	10.467	0.80	7.04	0.123	6.05
	Min.			166	2.040				1.18
	Avg.			167	5.533				2.23
June	Max.	270.19	48	167	10.373	0.81	6.42	0.134	6.50
	Min.			167	2.058				1.29
	Avg.			167	5.629				2.38
July	Max.	302.69	54	167	9.966	0.81	7.13	0.132	6.37
	Min.			167	2.072				1.32
	Avg.			167	5.605				2.35
August	Max.	287.45	54	167	10.040	0.76	7.61	0.141	6.70
	Min.			167	2.104				1.40
	Avg.			167	5.323				2.65
September	Max.	251.21	48	167	9.881	0.75	6.60	0.137	6.61
	Min.			167	2.079				1.39
	Avg.			167	5.234				2.63
October	Max.	303.92	54	168	9.445	0.81	6.72	0.124	5.86
	Min.			167	2.220				1.32
	Avg.			167	5.681				2.21
November	Max.	255.76	51	167	9.509	0.72	5.44	0.107	5.04
	Min.			167	2.118				1.12
	Avg.			167	5.015				2.13
December	Max.	265.02	51	167	9.539	0.75	5.36	0.105	5.35
	Min.			167	1.963				1.10
	Avg.			167	5.197				2.02
Total		3510.13	632.00	5894.00	213.60	9.69	79.03	1.50	116.96
General	Max.	410.94	65	243.00	12.93	1.04	8.42	0.141	8.57
	Min.	251.21	48	19.00	1.41	0.72	5.36	0.105	0.97
	Avg.	292.51	52.67	165.17	5.54	0.81	6.59	0.12	2.26

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**December 31, 2018**

**TABLE VII**

**FIVE YEAR ANALYSIS COMPOSITE DATA (2014 - 2018) FOR NEW ORLEANS  
DRINKING WATER PURIFICATION SYSTEM**

PARAMETER	MISSISSIPPI RIVER (Before Purification)			FINISHED WATER (After Purification)		
	MAX	MIN	AVG	MAX	MIN	AVG
Total Alkalinity (ppm as CaCO <sub>3</sub> )	201	65	119	210	80	131
Total Hardness (ppm as CaCO <sub>3</sub> )	272	91	161	300	116	182
Noncarbonate Hardness (ppm as CaCO <sub>3</sub> )	90	12	42	104	14	50
Calcium Hardness (ppm as CaCO <sub>3</sub> )	167	40	103	200	88	126
Magnesium Hardness (ppm as CaCO <sub>3</sub> )	118	17	57	151	5	56
Nephelometric Turbidity (NTU)	345	6.2	71	0.28	0.02	0.11
pH	8.22	7.00	7.68	9.34	7.76	8.88
Chloride (ppm)	50	14	29	58	19	32
Fluoride (ppm)	0.36	0.13	0.21	0.92	0.26	0.72
Total Dissolved Solids (ppm)	330	161	245	374	233	286
Total Suspended Solids (ppm)	234	24	96	-----	-----	-----
Free Chlorine Residual (ppm as Cl <sub>2</sub> )	-----	-----	-----	0.6	0.0	0.2
Total Chlorine Residual (ppm as Cl <sub>2</sub> )	-----	-----	-----	5.0	0.5	3.3
Ammonia (ppm as N)	-----	-----	-----	0.57	0.02	0.15
Nitrate + Nitrite (ppm as N) *	-----	-----	-----	3.0	1.0	1.6
Sulfate (ppm) *	-----	-----	-----	48.0	34.6	43.0
Conductivity (µS/cm)	685	230	429	700	244	480
Temperature (°F)	88	37	66	91	44	74
Aluminum (ppm) *	-----	-----	-----	0.01	0.00	0.01
Antimony (ppm) *	-----	-----	-----	0.000	0.000	0.000
Arsenic (ppm) *	-----	-----	-----	0.000	0.000	0.000
Barium (ppm) *	-----	-----	-----	0.050	0.000	0.036
Beryllium (ppm) *	-----	-----	-----	0.000	0.000	0.000
Cadmium (ppm) *	-----	-----	-----	0.000	0.000	0.000
Chromium (ppm) *	-----	-----	-----	0.000	0.000	0.000
Copper (ppm) *	-----	-----	-----	0.2	0.0	0.1
Iron (ppm) *	-----	-----	-----	0.00	0.00	0.00
Lead (ppm) *	-----	-----	-----	0.021	0.000	0.003
Manganese (ppm) *	-----	-----	-----	0.00	0.00	0.00
Mercury (ppm) *	-----	-----	-----	0.000	0.000	0.000
Nickel (ppm) *	-----	-----	-----	0.0	0.0	0.0
Selenium (ppm) *	-----	-----	-----	0.001	0.000	0.000
Silver (ppm) *	-----	-----	-----	0.00	0.00	0.00
Thallium (ppm) *	-----	-----	-----	0.000	0.000	0.000
Zinc (ppm) *	-----	-----	-----	0.00	0.00	0.00
Potassium (ppm) *	-----	-----	-----	3.6	3.5	3.6
Sodium (ppm) *	-----	-----	-----	34.0	17.5	23.9
Cyanide (ppm) *	-----	-----	-----	0.00	0.00	0.00
Haloacetic Acids (HAA5) (ppb) *	-----	-----	-----	51.0	5.4	21.2
Total Organic Carbon (ppm) *	4.9	2.9	3.7	3.9	2.0	2.8
Total Trihalomethanes (ppb)	0.0	0.0	0.0	49.6	9.4	22.8
1,2-Dichloroethane (ppb)	0.0	0.0	0.0	0.0	0.0	0.0
Chloroform (ppb)	0.0	0.0	0.0	37.6	5.2	15.0
Carbon Tetrachloride (ppb)	0.0	0.0	0.0	4.0	0.0	0.0
Bromodichloromethane (ppb)	0.0	0.0	0.0	19.1	0.4	6.3
Tetrachloroethene (ppb)	0.0	0.0	0.0	0.0	0.0	0.0
BTX (Benzene, Toluene & Xylenes) (ppb)	1.3	0.0	0.0	0.0	0.0	0.0
Total Coliforms (CFUs/100 ml)	6800	28	608	200	0	0
Fecal Coliforms (CFUs/100 ml)	350	5	51	0	0	0

The results for constituents indicated with asterisks are from the Louisiana Department of Health or an LDH certified contract laboratory.

All other results are from testing by the S&WB Water Quality Laboratory.

Lead and Copper results are from 2016 Lead and Copper Rule compliance testing.

Concerning the chemical results, the S&WB Laboratory does not meet the higher criteria required by DHH to be classified as a "DHH-OPH *Certified* Chemical Laboratory/Drinking Water;" therefore, any results reported by this laboratory for chemical drinking water parameters which are required to be analyzed in a certified laboratory are officially deemed invalid.

The S&WB Laboratory is certified by DHH for Total Coliform and E. coli testing.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**December 31, 2018**

**TABLE VIII**

**2018 CARROLLTON OPERATION**

CHEMICAL	CHEMICAL COST	CHEMICAL COST PER MILLION GALLONS
Lime	\$484,481.04	\$9.46
Ferric Coagulant	\$1,300,834.62	\$25.40
Chlorine & Sodium Hypochlorite	\$1,176,615.99	\$22.98
Sodium Polyphosphate	\$289,944.62	\$5.66
Polyelectrolyte	\$568,077.43	\$11.09
Fluoride	\$180,089.49	\$3.52
Ammonia	\$294,978.26	\$5.76
Carbon	\$0.00	\$0.00
<b>TOTAL CHEMICALS</b>	<b>\$4,295,021.44</b>	<b>\$83.87</b>

**TOTAL COST  
PER MILLION GALLONS**

YEAR	TOTAL WATER TREATED IN MILLION GALLONS	OPERATING COST	TOTAL COST PER MILLION GALLONS
2018	51,211.51	\$9,850,754	\$192.35
2017	50,714.68	\$8,208,239	\$161.85
2016	48,042.56	\$7,974,759	\$165.99
2015	47,616.37	\$8,238,282	\$173.01
2014	48,386.88	\$8,585,082	\$177.43

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**December 31, 2018**

**TABLE IX**

**ALGIERS OPERATION**

CHEMICAL	CHEMICAL COST	CHEMICAL COST PER MILLION GALLONS
Lime	\$128,282.66	\$34.09
Ferric Coagulant	\$126,823.51	\$33.71
Sodium Hypochlorite	\$99,912.30	\$26.55
Sodium Polyphosphate	\$35,898.00	\$9.54
Polyelectrolyte	\$47,405.88	\$12.60
Fluoride (100%)	\$17,869.29	\$4.75
Ammonia	\$25,697.74	\$6.83
Carbon	\$0.00	\$0.00
<b>TOTAL CHEMICALS</b>	<b>\$481,889.38</b>	<b>\$128.07</b>

Purification Plant Operating Cost: \$2,209,590.79  
 Total Water Treated in 2018: 3,762,720,000 Gallons

**TOTAL COST  
 PER MILLION GALLONS**

YEAR	TOTAL WATER TREATED IN MILLION GALLONS	OPERATING COST	TOTAL COST PER MILLION GALLONS
2018	3,762.72	\$2,209,590.79	\$587.23
2017	3,756.67	\$1,646,337.91	\$438.24
2016	3,684.57	\$1,952,339.00	\$529.87
2015	3,807.99	\$1,835,436.00	\$482.00
2014	4,115.36	\$1,967,690.00	\$478.13
2013	4,227.86	\$2,061,032.00	\$487.49

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
December 31, 2018**

**TABLE X**

**SLUDGE REMOVED FROM THE "G" BASINS PRIMARY TREATMENT UNITS  
DORR MONORAKE CONVENTIONAL SYSTEM  
2018**

Total Million Gallons Water Treated	29,573.54
Total Tons Dry Sludge Deposited in Basins Including Suspended and Dissolved Solids Removed and Reacting Chemicals	14,468
Total Million Gallons Wet Sludge Withdrawn from Basins	717.01
Average Percent solids in Wet Sludge	0.48
Total Million Gallons Water Used in Withdrawing Sludge	715.56
Percent of Total Water Treated Used in Withdrawing Wet Sludge	2.42

**TABLE X-A**

**SLUDGE REMOVED FROM THE "L" BASINS PRIMARY TREATMENT UNITS  
DORR MONORAKE CONVENTIONAL SYSTEM  
2018**

Total Million Gallons Water Treated	21,637.97
Total Tons Dry Sludge Deposited in Basins Including Suspended and Dissolved Solids Removed and Reacting Chemicals	9,825
Total Million Gallons Wet Sludge Withdrawn from Basins	276.80
Average Percent solids in Wet Sludge	0.84
Total Million Gallons Water Used in Withdrawing Sludge	275.82
Percent of Total Water Treated Used in Withdrawing Wet Sludge	1.28

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**December 31, 2018**

**TABLE XI**

**2018 ANALYSIS DATA FOR NEW ORLEANS CARROLLTON  
DRINKING WATER PURIFICATION SYSTEM**

PARAMETER	MISSISSIPPI RIVER (Before Purification)			FINISHED WATER (After Purification)		
	MAX	MIN	AVG	MAX	MIN	AVG
Total Alkalinity (ppm as CaCO <sub>3</sub> )	164	65	117	168	82	130
Total Hardness (ppm as CaCO <sub>3</sub> )	229	98	154	230	120	175
Noncarbonate Hardness (ppm as CaCO <sub>3</sub> )	68	11	37	90	15	45
Calcium Hardness (ppm as CaCO <sub>3</sub> )	138	70	98	150	90	121
Magnesium Hardness (ppm as CaCO <sub>3</sub> )	113	23	55	91	23	54
Nephelometric Turbidity (NTU)	242	8.4	62	0.25	0.02	0.10
pH	8.12	7.35	7.67	9.33	8.26	8.93
Chloride (ppm)	48	18	27	58	20	31
Fluoride (ppm)	0.32	0.11	0.20	0.86	0.57	0.71
Free Chlorine Residual (ppm as Cl <sub>2</sub> )	-----	-----	-----	0.6	0.0	0.1
Total Chlorine Residual (ppm as Cl <sub>2</sub> )	-----	-----	-----	4.1	2.3	3.4
Ammonia (ppm as N)	-----	-----	-----	0.37	0.02	0.14
Nitrate + Nitrite (ppm as N) *	-----	-----	-----	1.1	1.0	1.1
Conductivity (µS/cm)	685	288	464	692	329	511
Temperature (°F)	88	40	65	89	53	74
Aluminum (ppm) *	-----	-----	-----	0.00	0.00	0.00
Antimony (ppm) *	-----	-----	-----	0.000	0.000	0.000
Arsenic (ppm) *	-----	-----	-----	0.000	0.000	0.000
Barium (ppm) *	-----	-----	-----	0.041	0.041	0.041
Beryllium (ppm) *	-----	-----	-----	0.000	0.000	0.000
Cadmium (ppm) *	-----	-----	-----	0.000	0.000	0.000
Chromium (ppm) *	-----	-----	-----	0.000	0.000	0.000
Copper (ppm) *	-----	-----	-----	0.2	0.0	0.1
Iron (ppm) *	-----	-----	-----	0.00	0.00	0.00
Lead (ppm) *	-----	-----	-----	0.021	0.000	0.003
Manganese (ppm) *	-----	-----	-----	0.00	0.00	0.00
Mercury (ppm) *	-----	-----	-----	0.000	0.000	0.000
Nickel (ppm) *	-----	-----	-----	0.000	0.000	0.000
Selenium (ppm) *	-----	-----	-----	0.000	0.000	0.000
Silver (ppm) *	-----	-----	-----	0.00	0.00	0.00
Thallium (ppm) *	-----	-----	-----	0.000	0.000	0.000
Zinc (ppm) *	-----	-----	-----	0.00	0.00	0.00
Sodium (ppm) *	-----	-----	-----	19.2	18.7	19.0
Cyanide (ppm) *	-----	-----	-----	0.00	0.00	0.00
Haloacetic Acids (HAA5) (ppb) *	-----	-----	-----	51.0	14.5	32.5
Total Organic Carbon (ppm) *	4.9	3.4	3.8	3.9	2.4	2.9
Total Trihalomethanes (ppb)	0.0	0.0	0.0	44.2	9.7	23.6
1,2-Dichloroethane (ppb)	0.0	0.0	0.0	0.0	0.0	0.0
Chloroform (ppb)	0.0	0.0	0.0	34.1	6.2	16.6
Carbon Tetrachloride (ppb)	0.0	0.0	0.0	0.0	0.0	0.0
Bromodichloromethane (ppb)	0.0	0.0	0.0	11.3	0.4	5.6
Tetrachloroethene (ppb)	0.0	0.0	0.0	0.0	0.0	0.0
BTX (Benzene, Toluene & Xylenes) (ppb)	0.0	0.0	0.0	0.0	0.0	0.0
Total Coliforms (CFUs/100 ml)	1200	85	640	>200	0	0
E. coli (CFUs/100 ml)	-----	-----	-----	0	0	0

The results for constituents indicated with asterisks are from the Louisiana Department of Health or an LDH certified contract laboratory.

All other results are from testing by the S&WB Water Quality Laboratory.

Lead and Copper results are from 2016 Lead and Copper Rule compliance testing.

Concerning the chemical results, the S&WB Laboratory does not meet the higher criteria required by DHH to be classified as a "DHH-OPH *Certified* Chemical Laboratory/Drinking Water;" therefore, any results reported by this laboratory for chemical drinking water parameters which are required to be analyzed in a certified laboratory are officially deemed invalid.

The S&WB Laboratory is certified by DHH for Total Coliform and E. coli testing.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
December 31, 2018**

**TABLE XII  
EXTRACTS FROM TABLES IV-E AND V**

**20 Year Period, 1999 to 2018 Inclusive  
Maximum, Minimum, and Average Amount of  
Water Treated Per Day  
(M.G. per 24 Hours)**

YEAR	CARROLLTON			ALGIERS		
	MAX.	MIN.	AVG.	MAX.	MIN.	AVG.
1999	168.25	122.55	140.26	22.00	8.90	15.19
2000	152.50	126.71	128.10	18.83	7.58	12.13
2001	153.93	107.75	126.70	15.76	6.00	10.90
2002	128.67	87.00	106.63	14.00	6.66	9.80
2003	144.26	90.75	115.35	13.16	8.00	10.06
2004	145.83	102.92	122.57	13.16	8.00	10.15
2005	144.00	0.00	115.47	22.67	7.00	10.20
2006	165.63	115.33	139.73	18.34	8.00	11.67
2007	144.75	124.00	134.06	16.00	10.00	12.13
2008	143.50	114.08	133.88	13.58	6.92	10.38
2009	147.92	129.83	138.17	14.00	8.00	10.78
2010	156.50	125.33	137.10	15.67	8.00	11.25
2011	150.83	127.17	139.37	16.83	10.00	11.73
2012	163.29	117.96	137.65	15.50	10.00	11.58
2013	141.83	120.00	131.08	15.25	10.00	11.27
2014	157.30	122.08	132.57	15.58	9.00	10.43
2015	144.71	118.33	130.47	13.92	8.83	10.09
2016	213.83	120.46	131.62	17.25	8.00	9.66
2017	149.19	125.13	138.94	14.00	8.00	10.29
2018	168.70	118.21	138.62	13.53	7.41	9.37

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
December 31, 2018**

**TABLE XIII**

**Monthly Temperature (Degrees Farenheit) of the  
Mississippi River Water at the Carrollton Plant**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
January	50	41	43	48	47	42	43	47	47	41
February	46	41	43	48	47	40	45	46	49	45
March	51	48	51	57	49	46	45	54	55	55
April	58	62	61	69	57	59	61	62	63	58
May	69	71	68	74	66	69	70	70	69	71
June	79	81	80	81	76	79	79	79	77	82
July	85	85	84	85	81	83	84	86	83	86
August	84	86	87	87	83	84	85	85	85	86
September	81	83	80	82	83	83	83	84	80	83
October	70	72	72	72	76	72	74	75	77	73
November	59	61	62	60	62	59	65	66	61	56
December	49	50	50	55	48	49	54	53	52	47
Maximum	86	89	90	89	86	86	87	87	87	88
Minimum	42	37	40	46	45	37	39	42	44	40
Average	65	65	65	68	65	64	66	67	67	65

<u>Ten Year Period</u>	
Maximum:	90
Minimum:	37
Average:	66

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
December 31, 2018**

**TABLE XIV**

**Monthly Temperature (Degrees Farenheit) of the  
Tap Water at the Carrollton Plant**

	2014	2015	2016	2017	2018
January	62	62	57	64	59
February	61	62	59	64	62
March	66	66	66	67	69
April	72	73	72	72	71
May	77	76	77	76	78
June	80	80	83	80	83
July	83	83	88	82	86
August	84	82	87	84	85
September	84	80	86	83	83
October	79	76	81	81	79
November	69	70	74	72	69
December	65	64	66	65	65
Maxiumum	89	86	91	88	89
Minimum	44	55	52	59	53
Average	74	73	75	74	74

<u>Five Year Period</u>	
Maximum:	91
Minimum:	44
Average:	74

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**ANNUAL REPORT 2018 - FOR THE CALENDAR YEAR ENDING DECEMBER 31, 2018**  
**SEWER TABULATION NUMBER 1**  
**SEWER LINES AND MANHOLES IN THE SYSTEM AS OF DECEMBER 31, 2018**

**SEWER LINES DISCARDED AND INSTALLED IN 2018**

ORIGINAL CONSTRUCTION (FEET)	DESTROYED OR ABANDONED IN 2018 (FEET)	BUILT IN 2018 (FEET)	REMAINING IN THE SYSTEM AS OF 12/31/2018 (FEET)	REMAINING IN THE SYSTEM AS OF 12/31/2018 (MILES)
8,368,782.1	38,009.7	129,234.8	8,460,007.2	1,602.274

**SEWER MANHOLES REMOVED AND INSTALLED IN 2018**

ORIGINAL CONSTRUCTION	REMOVED IN 2018	BUILT IN 2018	REMAINING IN THE SYSTEM AS OF 12/31/2018
23,158	71	121	23,208

**DETAILS OF SEWER LINES AND SEWER MANHOLES INSTALLED (CONSTRUCTED) IN 2018**

ITEMS	BOARD FUNDED	BY OTHERS	TOTAL FEET	TOTAL MILES
6" PVC	19,933.5	1,454.0	21,387.5	4.051
8" PVC	80,856.0	1,526.0	82,382.0	15.603
10" PVC	1,436.3	0.0	1,436.3	0.272
12" PVC	8,083.2	0.0	8,083.2	1.531
15" PVC	1,600.3	0.0	1,600.3	0.303
18" PVC	14,316.5	0.0	14,316.5	2.711
21" PVC	29.0	0.0	29.0	0.005
<b>TOTAL SEWER LINES CONSTRUCTED IN 2018</b>	<b>126,254.8</b>	<b>2,980.0</b>	<b>129,234.8</b>	<b>24.5</b>
<b>SEWER MANHOLES CONSTRUCTED IN 2018</b>	<b>103</b>	<b>18</b>	<b>TOTAL MANHOLES BUILT IN 2018</b>	
			<b>121</b>	

SEWERAGE AND WATER BOARD OF NEW ORLEANS  
ANNUAL REPORT 2018 - FOR THE CALENDAR YEAR ENDING DECEMBER 31, 2018  
SEWER TABULATION NUMBER 2

LENGTH OF SEWER LINES OF EACH SIZE AND MATERIAL DISCARDED, BUILT, AND NOW REMAINING IN THE SYSTEM

SIZE & MATERIAL OF SEWER	TOTAL LENGTH IN SYSTEM AS OF 12/31/2017	DESTROYED OR ABANDONED IN 2018	BUILT IN 2018	NOW REMAINING IN THE SYSTEM AS OF 12/31/2018
72" Steel	29,182.4			29,182.4
68" Steel	9,061.9			9,061.9
66" Steel	28,979.7			28,979.7
66" Concrete	13,740.7			13,740.7
60" Steel	2,577.7			2,577.7
60" Concrete	722.8			722.8
57" Concrete	1,766.8			1,766.8
54" Steel	44,014.5			44,014.5
54" Concrete	7,030.4			7,030.4
51" Concrete	755.9			755.9
50" Steel	135.0			135.0
48" Steel	21,147.2			21,147.2
48" Concrete	10,127.6			10,127.6
48" Fiberglass Reinforced	10,900.2			10,900.2
48" P.V.C.	3,663.4			3,663.4
45" Concrete	3,048.4			3,048.4
42" Steel	3,580.2			3,580.2
42" Concrete	19,121.2			19,121.2
39" Brick	832.8			832.8
39" Concrete	3,871.8			3,871.8
36" Vitrified Clay	1,894.9			1,894.9
36" Cast Iron	431.0			431.0
36" Steel	332.6			332.6
36" Prestressed Concrete	11,273.0			11,273.0
36" Reinforced Concrete	9,312.7			9,312.7
36" P.V.C.	10,604.0			10,604.0
33" Brick	3,080.9			3,080.9
33" Vitrified Clay	562.3			562.3
33" Reinforced Concrete	1,381.4			1,381.4
30" Brick	2,763.0			2,763.0
30" Vitrified Clay	7,538.5			7,538.5
30" Cast Iron	4,305.9			4,305.9
30" Steel	3,535.2			3,535.2
30" Prestressed Concrete	484.0			484.0
30" Reinforced Concrete	33,920.5			33,920.5
30" Fiberglass Reinforced	16,400.0			16,400.0
30" P.V.C.	996.0			996.0
27" Vitrified Clay	24,428.4			24,428.4
27" Reinforced Concrete	13,336.4			13,336.4
27" P.V.C.	4,634.0			4,634.0
24" Vitrified Clay	31,572.2			31,572.2
24" Cast Iron	16,269.2			16,269.2
24" Ductile Iron	619.0			619.0

SIZE & MATERIAL OF SEWER	TOTAL LENGTH IN SYSTEM AS OF 12/31/2017	DESTROYED OR ABANDONED IN 2018	BUILT IN 2018	NOW REMAINING IN THE SYSTEM AS OF 12/31/2018
24" Steel	87.0			87.0
24" Reinforced Concrete	26,537.0			26,537.0
24" Asbestos Cement	4,924.2			4,924.2
24" P.V.C.	5,949.6			5,949.6
21" Reinforced Concrete	10,609.1			10,609.1
21" P.V.C.	5,815.4		29.0	5,844.4
20" Ductile Iron Pipe	1,991.4			1,991.4
18" P.V.C.	20,360.0		14,316.5	34,676.5
16" Steel	120.0			120.0
16" Asbestos Cement	28,460.9			28,460.9
16" Plastic	1,913.1			1,913.1
15" Vitrified Clay	98,019.1	1,600.3		96,418.8
15" P.V.C.	15,181.4		1,600.3	16,781.7
15" Plastic Truss	1,334.6	3.0		1,331.6
12" Vitrified Clay	107,829.6	141.0		107,688.6
12" P.V.C.	70,890.3		8,083.2	78,973.5
10" Vitrified Clay	148,345.1	629.5		147,715.6
10" Steel	130.0			130.0
10" Concrete	45,348.4			45,348.4
10" Asbestos Cement	4,356.2			4,356.2
10" P.V.C.	140,895.2		1,436.3	142,331.5
10" Plastic Truss	4,677.5			4,677.5
8" Terra Cotta	309,000.4	382.0		308,618.4
8" Vitrified Clay	3,945,257.9	32,628.9		3,912,629.0
8" Cast Iron	32,036.2			32,036.2
8" Ductile Iron	2,233.0			2,233.0
8" Concrete	265,663.9			265,663.9
8" Asbestos Cement	3,437.9	660.0		2,777.9
8" P.V.C.	975,692.3		82,382.0	1,058,074.3
8" Plastic Truss	61,911.8			61,911.8
8" Plastic	690,729.1	790.0		689,939.1
6" Terra Cotta	8,730.9			8,730.9
6" Vitrified Clay	76,522.4	1,175.0		75,347.4
6" Cast Iron	4,204.4			4,204.4
6" Asbestos Cement	4,493.9			4,493.9
6" P.V.C.	457,819.8		21,387.5	479,207.3
6" Plastic Truss	1,763.3			1,763.3
6" Plastic	364,867.8			364,867.8
4" Cast Iron	874.2			874.2
4" Ductile Iron	180.4			180.4
4" P.V.C.	5,525.7			5,525.7
4" Plastic	126.0			126.0
<b>Total Linear Feet</b>	<b>8,368,782.1</b>	<b>38,009.7</b>	<b>129,234.8</b>	<b>8,460,007.2</b>
<b>Total Miles</b>	<b>1,584.997</b>	<b>7.199</b>	<b>24.476</b>	<b>1,602.274</b>

SEWERAGE AND WATER BOARD OF NEW ORLEANS  
ANNUAL REPORT 2018 - FOR THE CALENDAR YEAR ENDING DECEMBER 31, 2018  
WATER TABULATION NUMBER 1

WATER LINES, MANHOLES, VALVES, AND FIRE HYDRANTS IN THE SYSTEM AS OF DECEMBER 31, 2018

**WATER LINES DISCARDED AND INSTALLED IN 2018**

ORIGINAL CONSTRUCTION (FEET)	DESTROYED OR ABANDONED IN 2018 (FEET)	BUILT IN 2018 (FEET)	REMAINING IN THE SYSTEM AS OF 12/31/2018 (FEET)	REMAINING IN THE SYSTEM AS OF 12/31/2018 (MILES)
9,643,586.2	47,882.4	87,590.8	9,683,294.6	1,833.957

**WATER MANHOLES REMOVED AND INSTALLED IN 2018**

ORIGINAL CONSTRUCTION	REMOVED IN 2018	BUILT IN 2018	REMAINING IN THE SYSTEM AS OF 12/31/2018
30,586	70	134	30,650

**WATER VALVES REMOVED AND INSTALLED IN 2018**

ORIGINAL CONSTRUCTION	REMOVED IN 2018	INSTALLED IN 2018	REMAINING IN THE SYSTEM AS OF 12/31/2018
29,940	110	160	29,990

**FIRE HYDRANTS REMOVED AND INSTALLED IN 2018**

ORIGINAL CONSTRUCTION	REMOVED IN 2018	INSTALLED IN 2018	REMAINING IN THE SYSTEM AS OF 12/31/2018
23,214	110	160	23,264

**DETAILS OF WATER LINES, MANHOLES, VALVES, AND FIRE HYDRANTS INSTALLED (CONSTRUCTED) IN 2018**

ITEMS	BOARD FUNDED	BY OTHERS	TOTAL FEET	TOTAL MILES
2" PVC	3,332.3	960.2	4,292.5	0.813
4" PVC	1,464.0	501.0	1,965.0	0.372
4" Ductile Iron	650.8	170.0	820.8	0.155
6" PVC	11,014.0	622.9	11,636.9	2.204
6" Ductile Iron	3,240.0	100.0	3,340.0	0.633
8" PVC	41,687.8	689.0	42,376.8	8.026
8" Ductile Iron	3,550.3	80.0	3,630.3	0.688
12" PVC	19,050.5	21.0	19,071.5	3.612
12" Ductile Iron	402.0	0.0	402.0	0.076
16" PVC	45.0	0.0	45.0	0.009
16" Ductile Iron	10.0	0.0	10.0	0.002
<b>TOTAL WATER LINES CONSTRUCTED IN 2018</b>	<b>84,446.7</b>	<b>3,144.1</b>	<b>87,590.8</b>	<b>16.589</b>
<b>WATER MANHOLES CONSTRUCTED IN 2018</b>	<b>BOARD FUNDED</b>	<b>BY OTHERS</b>	<b>TOTAL MANHOLES BUILT IN 2018</b>	
	<b>120</b>	<b>14</b>	<b>134</b>	
<b>WATER VALVES INSTALLED IN 2018</b>	<b>BOARD FUNDED</b>	<b>BY OTHERS</b>	<b>TOTAL WATER VALVES INSTALLED IN 2018</b>	
	<b>186</b>	<b>33</b>	<b>219</b>	
<b>FIRE HYDRANTS INSTALLED IN 2018</b>	<b>BOARD FUNDED</b>	<b>BY OTHERS</b>	<b>TOTAL FIRE HYDRANTS INSTALLED IN 2018</b>	
	<b>56</b>	<b>0</b>	<b>56</b>	

SEWERAGE AND WATER BOARD OF NEW ORLEANS  
ANNUAL REPORT 2018 - FOR THE CALENDAR YEAR ENDING DECEMBER 31, 2018

WATER TABULATION NUMBER 2

LENGTH OF WATER LINES OF EACH SIZE AND MATERIAL, NUMBER OF VALVES OF EACH SIZE, BOTH GATE AND CHECK,  
ORIGINALLY INSTALLED, THE QUANTITIES DISCARDED OR BUILT, AND THE QUANTITIES NOW REMAINING IN THE DISTRIBUTION SYSTEM

WATER LINES					
SIZE	MATERIAL	TOTAL LENGTH IN SYSTEM AS OF 12/31/2017	DESTROYED OR ABANDONED IN 2018	BUILT IN 2018	NOW REMAINING IN THE SYSTEM AS OF 12/31/2018
54"	Concrete Pipe	7,535.1			7,535.1
50"	Steel Pipe	88,374.0			88,374.0
48"	Cast Iron Pipe	12,759.3			12,759.3
48"	Steel Pipe	36,637.1			36,637.1
48"	Concrete Pipe	4,982.9			4,982.9
43"	Cast Iron Pipe	11,170.1			11,170.1
42"	Cast Iron Pipe	4,349.6			4,349.6
42"	Concrete Pipe	9,361.9			9,361.9
36"	Cast Iron Pipe	4,523.3			4,523.3
36"	Steel Pipe	16,922.0			16,922.0
36"	Concrete Pipe	37,374.7			37,374.7
36"	Prestressed Concrete	675.0			675.0
30"	Cast Iron Pipe	59,740.1			59,740.1
30"	Ductile Iron Pipe	296.0			296.0
30"	Steel Pipe	19,863.1			19,863.1
30"	Concrete Pipe	71,216.4			71,216.4
30"	Prestressed Concrete	36,654.4			36,654.4
30"	Reinforced Concrete	3,919.6			3,919.6
30"	P.V.C. Pipe	3,716.1			3,716.1
24"	Cast Iron Pipe	30,090.0			30,090.0
24"	P.V.C. Pipe	1,372.0			1,372.0
24"	Ductile Iron Pipe	140.0			140.0
24"	Concrete Pipe	4,062.5			4,062.5
20"	P.V.C. Pipe	12,320.5			12,320.5
20"	Cast Iron Pipe	85,767.9			85,767.9
20"	Ductile Iron Pipe	10,441.4			10,441.4
20"	Concrete Pipe	18,755.8			18,755.8
20"	Prestressed Concrete	212.5			212.5
20"	Asbestos Cement	12,688.0			12,688.0
18"	Reinforced Concrete	970.5			970.5
16"	Cast Iron Pipe	112,496.7	55.0		112,441.7
16"	Ductile Iron Pipe	6,692.7		10.0	6,702.7
16"	Concrete Pipe	5,681.6			5,681.6
16"	Asbestos Cement	63,245.6			63,245.6
16"	P.V.C. Pipe	14,604.0		45.0	14,649.0
15"	Reinforced Concrete	1,069.3			1,069.3
12"	Cast Iron Pipe	836,515.7			836,515.7
12"	Ductile Iron Pipe	22,185.1		402.0	22,587.1
12"	Steel Pipe	1,272.9			1,272.9
12"	Asbestos Cement	357,603.6			357,603.6
12"	P.V.C. Pipe	240,460.2		19,071.5	259,531.7
10"	Cast Iron Pipe	10,271.7			10,271.7
10"	Ductile Iron Pipe	670.0			670.0
10"	Asbestos Cement	12,763.6			12,763.6
10"	P.V.C. Pipe	7,896.0			7,896.0
8"	Cast Iron Pipe	114,334.7	5,879.5		108,455.2
8"	Ductile Iron Pipe	43,160.0		3,630.3	46,790.3
8"	Asbestos Cement	697,824.4	4,746.9		693,077.5
8"	P.V.C. Pipe	885,654.8		42,376.8	928,031.6
8"	Plastic Pipe	318,036.5			318,036.5
6"	Cast Iron Pipe	2,463,410.9	32,480.2		2,430,930.7
6"	Ductile Iron Pipe	22,621.6		3,340.0	25,961.6
6"	Asbestos Cement	1,038,801.5	4,720.8		1,034,080.7
6"	P.V.C. Pipe	304,414.6		11,636.9	316,051.5
6"	Plastic Pipe	121,385.5			121,385.5
4"	Cast Iron Pipe	1,166,342.5			1,166,342.5
4"	Ductile Iron Pipe	5,817.3		820.8	6,638.1
4"	Asbestos Cement	22,250.8			22,250.8
4"	P.V.C. Pipe	26,317.4		1,965.0	28,282.4
4"	Plastic Pipe	3,833.1			3,833.1
3"	Galvanized Steel	3,361.7			3,361.7
2"	Cast Iron Pipe	7,909.9			7,909.9
2"	Galvanized Steel	9,620.0			9,620.0
2"	P.V.C. Pipe	82,821.9		4,292.5	87,114.4
1"	Galvanized Steel	5,346.6			5,346.6
<b>Total Linear Feet</b>		<b>9,643,586.2</b>	<b>47,882.4</b>	<b>87,590.8</b>	<b>9,683,294.6</b>
<b>Total Miles</b>		<b>1,826.437</b>	<b>9.069</b>	<b>16.589</b>	<b>1,833.957</b>

VALVES				
SIZE	EXISTING IN SYSTEM AS OF 12/31/2017	REMOVED IN 2018	INSTALLED IN 2018	REMAINING IN SYSTEM AS OF 12/31/2018
48"	16			16
42"	4			4
36"	18			18
30"	66			66
24"	39			39
20"	133			133
16"	193	1	1	193
14"	3			3
12"	2,326	11	11	2,326
10"	72			72
8"	6,771	7	102	6,866
6"	13,051	44	90	13,097
4"	7,248		15	7,263
<b>Total</b>	<b>29,940</b>	<b>63</b>	<b>219</b>	<b>30,096</b>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**Table of Rainfall in New Orleans**  
**December 31, 2018**

YEAR No.	YEAR	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		ANNUAL MONTHLY AVERAGE	EXCESS OR DEFICIT
		AMOUNT	TOTAL TO DATE	AMOUNT	TOTAL TO DATE	AMOUNT	TOTAL TO DATE	AMOUNT	TOTAL TO DATE	AMOUNT	TOTAL TO DATE	AMOUNT	TOTAL TO DATE	AMOUNT	TOTAL TO DATE	AMOUNT	TOTAL TO DATE	AMOUNT	TOTAL TO DATE	AMOUNT	TOTAL TO DATE	AMOUNT	TOTAL TO DATE	AMOUNT	TOTAL TO DATE		
116	2009 total	5.16	2.97	8.13	6.17	14.30	1.21	15.51	2.46	17.96	2.40	20.36	3.82	24.18	4.62	28.80	7.45	36.25	7.57	43.82	0.78	44.60	19.81	64.41	5.37	5.11	
	avg.	533.61	532.91	1,068.79	586.85	1,655.64	558.85	2,221.45	557.12	2,778.60	647.91	3,434.55	752.25	4,186.80	682.74	4,869.54	653.48	5,523.00	377.89	5,900.89	422.78	6,326.73	554.65	6,878.73			
117	2010 total	4.60	4.59	9.21	5.06	14.27	4.82	19.15	4.80	23.95	5.59	29.61	6.48	36.09	5.89	41.98	5.63	47.61	3.26	50.87	3.64	54.54	4.78	59.30	4.04	-10.72	
	avg.	1.75	5.91	7.66	2.74	10.40	2.97	13.37	6.12	19.49	7.24	26.73	5.62	32.35	9.58	41.93	2.26	44.19	0.39	44.58	2.32	46.90	1.58	48.49			
118	2011 total	535.36	538.82	1,076.45	589.59	1,666.04	561.82	2,234.81	563.24	2,798.09	655.15	3,461.28	757.87	4,219.15	692.32	4,911.47	655.74	5,567.19	378.29	5,945.47	425.10	6,373.64	556.23	6,927.21			
	avg.	4.58	4.61	9.20	5.04	14.24	4.80	19.10	4.81	23.92	5.60	29.58	6.48	36.06	5.92	41.98	5.60	47.58	3.23	50.82	3.63	54.48	4.75	59.21			
119	2012 total	2.99	1.59	4.59	6.49	11.08	0.27	11.35	0.90	12.25	4.18	16.42	11.48	27.91	1.57	29.48	9.99	39.47	0.14	39.61	1.66	41.27	0.78	42.04	3.50	-17.02	
	avg.	538.35	540.42	1,081.04	596.08	1,677.12	562.09	2,246.17	564.13	2,810.34	659.33	3,477.71	769.35	4,247.06	693.89	4,940.95	665.73	5,606.66	378.43	5,985.08	426.76	6,414.91	557.00	6,969.26			
120	2013 total	4.56	4.58	9.16	5.05	14.21	4.76	19.04	4.78	23.82	5.59	29.47	6.52	35.99	5.88	41.87	5.64	47.51	3.21	50.72	3.62	54.36	4.72	59.06			
	avg.	1.74	3.38	5.12	6.16	11.28	8.14	19.42	2.45	21.87	4.84	26.71	12.89	39.60	17.79	57.39	3.83	61.22	0.15	61.36	2.13	63.50	2.30	65.80	5.48	6.68	
121	2014 total	540.09	543.79	1,086.16	602.24	1,688.39	570.23	2,265.58	566.58	2,832.21	664.17	3,504.42	782.25	4,286.66	711.68	4,998.34	669.55	5,667.88	378.57	6,046.45	428.90	6,478.40	559.30	7,035.06			
	avg.	4.54	4.57	9.13	5.06	14.19	4.79	19.04	4.76	23.80	5.58	29.45	6.57	36.02	5.98	42.00	5.63	47.63	3.18	50.81	3.60	54.44	4.70	59.12			
122	2015 total	5.14	6.82	11.96	0.55	12.51	12.51	25.01	4.51	29.52	4.55	34.08	4.43	38.51	4.58	43.09	5.44	48.53	2.19	50.72	2.81	53.53	4.48	58.01	4.83	-1.10	
	avg.	545.24	550.61	1,098.12	602.78	1,700.90	582.74	2,290.60	571.09	2,861.73	668.72	3,538.49	786.68	4,325.17	716.26	5,041.43	674.99	5,716.41	380.76	6,097.17	431.71	6,531.94	563.78	7,093.07			
123	2016 total	2.72	6.54	9.26	6.44	15.70	2.19	17.89	7.68	25.57	6.41	31.98	6.49	38.47	4.74	43.21	4.20	47.41	1.94	49.35	1.47	50.82	3.70	54.52	4.54	-4.55	
	avg.	547.96	557.15	1,107.37	609.22	1,716.60	584.93	2,308.48	578.78	2,887.30	675.13	3,570.47	793.17	4,363.64	721.00	5,084.64	679.19	5,763.82	382.71	6,146.52	433.17	6,582.76	567.49	7,147.60			
124	2017 total	4.76	1.65	6.41	4.21	10.62	11.29	21.91	6.86	28.78	2.75	31.53	4.32	35.85	2.59	38.45	4.15	42.60	5.21	47.81	5.52	53.33	6.76	60.09	5.01	1.01	
	avg.	552.72	558.80	1,113.79	613.43	1,727.22	596.22	2,330.40	585.64	2,916.08	677.88	3,602.00	797.50	4,399.50	723.59	5,123.09	683.34	5,806.41	387.92	6,194.33	438.69	6,636.08	574.25	7,207.68			
125	2018 total	4.53	4.58	9.13	5.03	14.16	4.887	19.10162	4.80	23.90	5.56	29.52	6.54	36.06	5.93	41.99	5.60	47.59	3.1796	50.7732	3.5958	54.39412	4.707	59.08			
	avg.	4.67	2.48	7.15	6.99	14.14	11.73	25.87	5.62	31.49	8.16	39.65	4.34	43.99	7.63	51.62	3.58	55.20	0.02	55.22	3.92	59.14	4.7	63.84	5.32	4.72	
126	2019 total	557.39	561.28	1,118.67	620.42	1,739.09	607.95	2,356.27	591.26	2,947.53	686.04	3,633.57	801.84	4,443.49	731.22	5,174.71	686.92	5,861.63	387.94	6,249.57	442.61	6,692.18	578.95	7,271.13			
	avg.	4.53	4.56	9.09	5.0441	14.14	4.9427	19.15664	4.807	23.9636	5.5775794	29.54121	6.519	36.12592	5.945	42.07081	5.5847	47.65556	3.154	50.809511	3.5985	54.40798	4.7069	59.11488			
127	2020 total	5.21	1.7	6.91	4.46	11.37	5.5	16.87	10.56	27.43	10.84	38.27	6.79	45.06	14.13	59.19	1.47	60.66	7.16	67.82	0.22	68.04	5.01	73.05	6.09	13.82	
	avg.	562.60	562.98	1,125.58	624.88	1,750.46	613.45	2,363.91	601.82	2,965.73	696.88	3,662.61	808.63	4,471.24	745.35	5,216.59	688.39	5,904.98	395.10	6,300.08	442.83	6,742.91	583.96	7,344.18			
128	2021 total	4.54	4.54	9.08	5.0394	14.12	4.9472	19.06377	4.8534	23.9172	5.6200183	29.53717	6.5212	36.05837	6.011	42.06927	5.5516	47.62084	3.1863	50.807096	3.5712	54.37832	4.7093	59.22726			
	avg.	3.52	2.7	6.26	3.83	10.09	5.2	15.31	3.58	18.89	5.60	24.49	6.79	31.28	7.52	38.80	5.80	44.60	6.28	50.88	5.85	56.73	4.67	61.40	5.12	2.29	
129	2022 total	566.12	565.72	1,131.84	628.71	1,760.55	618.67	2,379.22	605.40	2,984.62	702.48	3,687.10	815.42	4,502.52	752.87	5,255.39	694.19	5,949.58	401.38	6,350.96	448.68	6,799.64	588.63	7,388.27			
	avg.	4.53	4.53	9.05	5.0300	14.08	4.9500	19.03000	4.8400	23.8800	5.6200000	29.50000	6.5200	36.02000	6.020	42.04000	5.5500	47.60000	3.2100	50.810000	3.5900	54.40000	4.7100	59.11000			

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**COST OF OPERATIONS IDENTIFICATION PROGRAM  
BENCHMARKING 2018**

**ADMINISTRATIVE SERVICES DEPARTMENT**

**Insurance Cost per Employee:**

Workers' Compensation	\$	3,033,610
Auto Liability	\$	196,945
General Liability	\$	2,472,323

**ENGINEERING DEPARTMENT**

Total Capital Program Design and Construction Contracts Cost Growth		9.5%
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**ENVIRONMENTAL DEPARTMENT**

Cost of Typical Industry Sampling Event	\$	2,379.77
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**FACILITY MAINTENANCE DEPARTMENT**

Cost to set 5/8" water meter	\$	124.50
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**MANAGEMENT SERVICES DEPARTMENT**

**FINANCE:**

Cost to Process a Miscellaneous Invoice	\$	40.94
Cost to Process a Vendor Invoice	\$	13.35
Cost to Process a Paycheck	\$	5.73

**PERSONNEL:**

Cost to Hire an Employee	\$	271.26
Employee Turnover Rate		20.12%

**PURCHASING:**

Cost to Process a Sundry Purchase Order	\$	65.25
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**REVENUE:**

Cost to Read a Meter	\$	2.54
Cost to Render a Bill (Less Meter Reading)	\$	0.73
Cost to Manage a Customer by Phone	\$	2.91
Cost to Manage a Customer by Mail	\$	1.07
Cost to Manage a Walk-in Customer	\$	2.84
Cost to Process a Mail-in Payment	\$	10.58
Cost to Process a Walk-in Payment	\$	2.64

**SUPPORT SERVICES DEPARTMENT**

Average Annual Maintenance Cost	\$	1,469.03
Per Piece of Equipment		10%-15%

# THANK YOU



General Superintendent Robert Turner, left, and Executive Director Ghassan Korban exit a building at the Carrollton Water Plant.