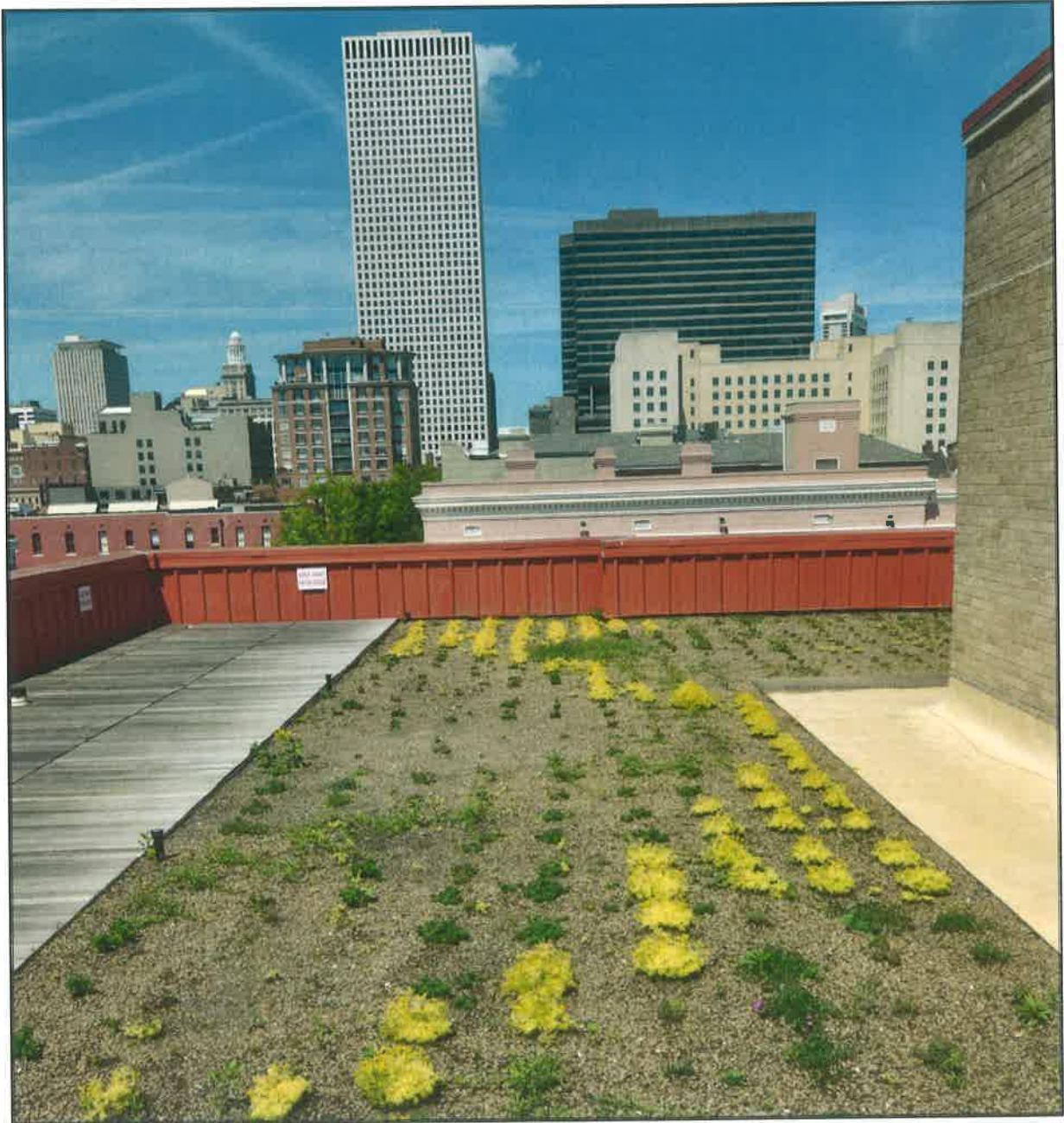




# Sewerage and Water Board

OF NEW ORLEANS, LOUISIANA



COMPREHENSIVE ANNUAL  
FINANCIAL REPORT  
FOR THE YEARS ENDED  
DECEMBER 31, 2016 and 2015

### **About The Cover**

*Sewerage and Water Board's main office on St. Joseph Street has a new roof. It is a green or vegetated roof that will catch and hold rainwater to help reduce flooding and improve storm water quality. The roof will also provide additional insulation for the building and lower temperatures in the surrounding area. This project is part of the Board's Green Infrastructure Program.*

*The Sewerage and Water Board (S&WB) developed and implemented the Green Infrastructure Plan as a formal commitment to address a consent decree from the Environmental Protection Agency and the Department of Justice. This includes green infrastructure demonstration projects, education, outreach, tours and science programming. The S&WB works closely with various departments, City agencies and many community stakeholders to implement the new program.*

**SEWERAGE AND WATER BOARD  
OF NEW ORLEANS**

**Comprehensive Annual Financial Report  
For The Year Ended  
December 31, 2016 and 2015**

**Prepared by:  
Finance Administration  
Rosita P. Thomas  
Finance Administrator**

## **Mission, Vision, and Values**

***Our mission*** is to provide safe drinking water to everyone in New Orleans; to remove waste water for safe return to the environment; to drain away storm water; to provide water for fire protection; to provide information about products and services; and to do all of this continuously at a reasonable cost to the community.

***Our vision*** is to have the trust and confidence of our customers for reliable and sustainable water services.

***We believe in these values*** as the foundation for how we will perform our mission and pursue our vision:

- We will focus on our customers and stakeholders.
- We will treat each customer and employee with dignity and respect.
- We will value each employee, their work, and their commitment.
- We will be truthful, trustworthy and transparent.
- We will be knowledgeable and diligent in the performance of our duties.
- We will use financial resources prudently.
- We will be accountable for our performance.
- We will continuously improve our performance.
- We will ensure that the systems that provide our services remain viable for future generations.
- We will remain on the job and will be prepared for storms and other risks.

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

Comprehensive Annual Financial Report  
Year ended December 31, 2016 and 2015

## TABLE OF CONTENTS

---

<b>I.</b>	<b>INTRODUCTORY SECTION</b>	<b><u>PAGE(S)</u></b>
	Transmittal Letter	I-1 to I-15
	Graph	I-16
	Certificate of Achievement for Excellence in Financial Report	I-17
	Officers of the Sewerage and Water Board of New Orleans	I-18
	Members of Sewerage and Water Board of New Orleans	I-19
	Committees of the Sewerage and Water Board of New Orleans	I-20
	Organizational Chart	I-21
	Executive Staff	I-22
	Division Heads	I-23 to I-30
<b>II.</b>	<b>FINANCIAL SECTION</b>	
	Independent Auditors' Report	II-1
	Management's Discussion and Analysis (Required Supplementary Information)	II-4
	Basic Financial Statements:	
	Government – Wide Financial Statements – Enterprise Fund:	
	Statements of Net Position	II-20
	Statements of Revenues, Expenses and Changes in Net Position	II-22
	Statements of Cash Flows	II-23
	Fund Financial Statements – Fiduciary Fund	
	Statements of Fiduciary Net Position – Pension Trust Fund	II-25
	Statements of Changes in Fiduciary Net Position – Pension Trust Fund	II-26
	Notes to Financial Statements	II-27
	Required Supplementary Information under	
	GASB Statement No. 67, 68, and 71	II-66
	GASB Statement No. 67, 68, and 71	II-67
	GASB Statement No. 45	II-68
	Supplementary Information:	
	Net Position by Department	
	Enterprise Fund – Schedule 1	II-69
	Revenues, Expenses, and Changes in Net Position by Department	
	Enterprise Fund – Schedule 2	II-71
	Schedule of Property, Plant, and Equipment in Service by Department	
	Schedule 3	II-72
	Schedule of Bonds Payable	
	Schedule 4	II-73
	Schedule of Cash Receipts and Disbursements –	
	Debt Service and Debt Service Reserve Required by Bond Resolution	
	Schedule 5	II-74

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

Comprehensive Annual Financial Report  
Year ended December 31, 2016 and 2015

## TABLE OF CONTENTS

<b>II.</b>	<b>FINANCIAL SECTION (continued)</b>	<b><u>PAGE(S)</u></b>
	Schedule of Changes in Self-Insurance Liabilities by Department Schedule 6	II-75
	Schedule of Compensation, Benefits, and Other Payments to the Executive Director Schedule 7	II-76
<b>III.</b>	<b>STATISICAL INFORMATION (UNAUDITED)</b>	
	This part of the Board's comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the Board's overall financial health.	
	Summary of Statistical Information	III-0
	Financial Trends	
	<i>These schedules contain trend information to help the reader understand how the Board's financial performance and well-being have changed over time.</i>	
	Net Position by Component – Last Ten Years	III-1
	Changes in Net Position by Component – Last Ten Fiscal Years	III-2
	Revenues and Expenses by Source – Enterprise Fund Last Ten Fiscal Years	III-3
	Revenue Capacity	
	<i>These schedules contain information to help the reader assess the Board's most significant local revenue source, the property tax.</i>	
	Assessed and Estimated Actual Value of Taxable Property – Last Ten Fiscal Years	III-4
	Property Tax Rates – Direct and Overlapping Governments Number of Mills – Last Ten Years	III-5
	Ten Largest Taxpayers – December 31, 2016 and Nine Years Ago	III-6
	Property Tax Levies and Collections by the City of New Orleans Last Ten Fiscal Years	III-7
	Water and Sewer Rates – Last Ten Fiscal Years	III-8
	Debt Capacity	
	<i>These schedules present information to help the reader assess the affordability of the Board's current levels of understanding debt and the Board's ability to issue additional debt in the future.</i>	
	Ratio of Outstanding Debt by Type – Last Ten Fiscal Years	III-9
	Computation of Direct and Overlapping Debt – December 31, 2016	III-10
	Revenue Bonds Debt Service Coverage:	
	Water Bonds – Last Ten Fiscal Years	III-11
	Sewer Bonds – Last Ten Fiscal Years	III-12
	Unrestricted Cash and Cash Equivalents Days of Operating and Maintenance Expense at Year End:	
	Water System – Last Four Fiscal Years	III-13
	Sewer System – Last Four Fiscal Years	III-14

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

Comprehensive Annual Financial Report  
Year ended December 31, 2016 and 2015

## TABLE OF CONTENTS

---

<b>III. STATISICAL INFORMATION (UNAUDITED) (continued)</b>	<b><u>PAGE(S)</u></b>
Demographic and Economic Information <i>These schedules offer demographic and economic indicators to help the reader understand the environment within which the Board's financial activities take place.</i>	
Demographic Statistics – Last Ten Fiscal Years	III-15
New Orleans Area Principal Employers (Non-Public) – Last Ten Fiscal Years	III-16
Operating Information <i>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.</i>	
Capital Expenditures by Department – Enterprise Fund Last Ten Fiscal Years	III-17
Schedule of Future Debt Payments:	
Water	III-18
Sewer	III-19
Drainage	III-20
Total	III-21
Property Value, New Construction and Bank Deposits Last Ten Fiscal Years	III-22
Capital Asset Statistics by Function – Last Ten Fiscal Years	III-23
Active Government Employees – Last Nine Fiscal Years	III-24
<b>IV. SUPPLEMENTAL INFORMATION (UNAUDITED)</b>	
2016 Actual Capital Expenditures – Water Department	IV-1
2016 Actual Capital Expenditures – Sewerage Department	IV-2
2016 Actual Capital Expenditures – Drainage Department	IV-3
2016 Actual Capital Expenditures – Power Projects	IV-4
2016 Actual Capital Expenditures – General Budget Items	IV-5
Analysis of Pumping and Power Department Power Purchased and Produced – 2007 through 2016	IV-6
Pumping and Power Department – 2016	IV-7
Gallons Metered – Pay Water Consumption – 2016	IV-8
Monthly Water and Sewerage Rate Collections – 2016	IV-9
Table of Water Purification Operations and Table of Water and Sewerage Distribution System	IV-10 thru IV-32
Table of Rainfall in New Orleans – Last Ten Years	IV-33
Benchmarking	IV-34

# INTRODUCTORY SECTION



*The Water Quality Laboratory is located within the Carrollton Water Purification Plant. It monitors river water and finished water from both the East Bank and Algiers. The Water Quality Master Plan for the Water Purification Division was finalized and approved in 2016. The Water Quality Laboratory assures the safety and purity of the city's water by testing for organic, inorganic and microbiological compounds.*



*A new Customer Service Management System was launched October 24, 2016. This new system provides easier access to information needed to better serve customers. The system includes improved payment options, better internet access, and better "real time" information. Customers can also access their account balances by phone and make payments 24 hours a day.*







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

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

**MITCHELL J. LANDRIEU, President**  
**SCOTT JACOBS, President Pro-Tem**  
**CEDRIC GRANT, Executive Director**

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

June 27, 2017

TO: THE HONORABLE PRESIDENT AND MEMBERS OF  
SEWERAGE AND WATER BOARD OF NEW ORLEANS

We are pleased to present the Comprehensive Annual Financial Report of Sewerage and Water Board of New Orleans for the years ended December 31, 2016 and 2015. Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rest solely with the Board. It is our belief that the data, as presented, is accurate in all material aspects and is presented in a manner designed to fairly set forth the financial position, results of operations, and cash flows of the Board's Enterprise and Pension Trust Funds. All disclosures are necessary to enable the reader to gain an understanding of the Board's financial activities have been included.

## **COMPREHENSIVE ANNUAL FINANCIAL REPORT SECTIONS**

The Comprehensive Annual Financial Report is presented in four (4) major sections: Introductory, Financial, Statistical and Supplemental. The Introductory Section includes the transmittal letter and listings of the officers, members and committees of the Board of Directors. This section also includes the Board's organizational chart and a reproduction of the 2015 Certificate of Achievement for Excellence in Financial Reporting awarded by the Government Finance Officers Association. The Financial Section includes the independent auditors' report, along with the basic financial statements, required supplementary information, accompanying notes and other supplementary information. The individual fund statements for the Enterprise and Pension Trust Funds are included. Required supplementary includes management's discussion and analysis and a schedule of pension funding progress and contributions. The Statistical Section includes selected financial and demographic information, generally in a multi-year presentation. Additional information relative to the Board's operations is included in the Supplemental Section.

The independent audit of the financial statements of the Board was part of a broader, federally mandated "Single Audit" designed to meet the special needs of federal grantor agencies. The standards governing Single Audit engagements require the independent auditor to report not only on the fair presentation of the financial statements, but also on the audited government's internal controls and compliance with legal requirements, with special emphasis on internal controls and legal requirements involving the administration of federal awards. These reports are available in the Board's separately issued Single Audit Report. The Board's internal control over financial reporting is a process designed by, or under the supervision of, the Board'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 purposes in accordance with generally accepted accounting principles. The Board's internal control over financial

reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Board; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Board are being made only in accordance with authorizations of management and Board of Directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Board's assets that could have a material effect on the financial statements. Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

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.

GAAP require that management provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement MD&A and should be read in conjunction with it. The Sewerage and Water Board's MD&A can be found immediately following the report of the independent auditors.

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

Sewerage and Water Board of New Orleans is a political subdivision created in 1899 by Louisiana State Statutes. The Board is charged with construction, operation, and maintenance of Water, Sewerage and Drainage Systems for the City of New Orleans. By agreement, approximately 2,550 acres of adjoining Jefferson Parish is served by the Board's drainage facilities for which Jefferson Parish pays its pro rata share of expenses. In addition, the Board provides sewerage services to Jefferson Parish businesses the majority of which are restaurants located in the West End neighborhood near the Lakefront. Additionally, the Board provides water and sewerage services to the Plaquemines Parish Industrial Park. The Board was established as a "special board" operating independently of city government. Effective January 1, 2015, the Board's makeup changed to eleven members, including the Mayor to serve as the President of the Board of Directors, two (2) members of the Board of Liquidation, City Debt and eight (8) citizens, as designated by the State Statutes. The initial terms of office shall be staggered from one year to four years, as designated by State Statutes, as well.

## **ECONOMIC GROWTH AND OUTLOOK**

The history of the Sewerage and Water Board of New Orleans shows that its service area includes the Civil Parish of Orleans in the state of Louisiana which covers 364 square miles. Based upon the 2010 census, the population was 369,250. In 2016, the major industries were Health Care & Social Assistance and Leisure & Hospitality. In the Professional & Business Services, the Administrative, Support, & Waste Management had areas of growth as well.

According to the University of New Orleans (UNO) Metropolitan Report, Economic Indicators for the New Orleans Area – May 2017 below are some highlights from its data of information:

- During the calendar year 2016 overall 500 jobs (-0.1%) were lost between 2015 and 2016. There were employment gains in such areas as Health Care, Leisure and Hospitality and job losses in the areas of Government, Information and Construction (Table 1).

- Airport travel increased in 2016, suggesting more visitors are arriving and local residents are traveling as well (Figure 4).
- Gaming admissions and revenues weakened in 2016 (Figure 6) while hotel sales have increased since 2006 (Figure 7).
- Construction showed a substantial increase in residential, non-residential and non-building construction in 2016 (Figure 8).
- In 2016, visitation and spending increased by 7% over 2015 (Figure 9).
- Population in the metropolitan area during 2016 has grown to 92% of the pre-Katrina population numbers (Figure 10).

## METROPOLITAN STATISTICAL AREA (MSA) EMPLOYMENT

Table 1: New Orleans MSA Employment – Quarterly Actuals, 2015:4 – 2016:4

Sectors <sup>1</sup>	2015:4	2016:1	2016:2	2016:3	2016:4	2016:3 to 2016:4	2015:4 to 2016:4	2015FY to 2016FY
	Number of Jobs					Percent Change <sup>2</sup>		
<b>Total Nonfarm Employment</b>	<b>581,967</b>	<b>573,333</b>	<b>577,667</b>	<b>573,233</b>	<b>579,500</b>	<b>1.1</b>	<b>-0.4</b>	<b>-0.1</b>
Mining and Logging	6,400	5,867	5,533	5,467	5,300	-3.0	-17.2	-20.6
Construction	31,633	29,933	29,367	29,667	30,267	2.0	-4.3	-6.2
Manufacturing	30,633	30,033	30,133	29,900	30,033	0.4	-2.0	-2.0
Durable Goods	12,000	11,500	11,500	11,467	11,433	-0.3	-4.7	-5.5
Transportation Equipment	2,800	2,367	2,400	2,500	2,467	-1.3	-11.9	-13.4
Nondurable Goods	18,633	18,533	18,633	18,433	18,600	0.9	-0.2	0.3
Chemical Manufacturing	5,167	5,233	5,167	5,133	5,167	0.6	0.0	0.3
Wholesale Trade	23,367	23,233	23,167	23,233	23,567	1.4	0.9	-0.3
Retail Trade	65,767	63,867	64,200	63,900	66,067	3.4	0.5	0.5
Grocery Stores	10,400	10,233	10,267	10,100	10,333	2.3	-0.6	-1.6
General Merchandise Stores	14,433	13,600	13,800	13,933	15,133	8.6	4.8	1.9
Transp., Warehousing, and Utilities	29,533	28,800	28,433	28,467	28,433	-0.1	-3.7	-2.6
Information	9,467	8,233	7,400	7,367	6,867	-6.8	-27.5	-16.9
Financial Activities	29,733	29,500	29,800	30,100	30,600	1.7	2.9	1.6
Depository Credit (banking)	6,100	6,067	6,067	6,067	6,000	-1.1	-1.6	-1.5
Professional and Business Services	75,033	73,967	75,933	74,767	75,400	0.8	0.5	0.1
Professional, Scientific, Technical	32,333	32,267	31,867	31,667	31,200	-1.5	-3.5	-3.3
Management of Companies	8,000	8,000	8,000	7,867	7,733	-1.7	-3.3	0.2
Admin, Support, Waste Mgmt.	34,700	33,700	36,067	35,233	36,467	3.5	5.1	3.5
Educational Services	30,100	29,500	30,033	29,933	31,300	4.6	4.0	2.5
Health Care and Social Assistance	67,667	67,900	68,467	69,633	70,133	0.7	3.6	5.7
Ambulatory Health Care	25,867	25,933	26,267	26,333	26,600	1.0	2.8	3.9
Hospitals (private)	22,767	22,767	23,000	24,100	24,633	2.2	8.2	10.7
Leisure and Hospitality	86,367	86,633	88,000	86,733	87,233	0.6	1.0	2.2
Arts, Entertainment, and Rec.	12,000	11,767	11,933	11,867	11,400	-3.9	-5.0	0.9
Accommodation	14,567	14,500	14,967	14,833	14,667	-1.1	0.7	2.4
Food Services and Drinking Places	59,800	60,367	61,100	60,033	61,167	1.9	2.3	2.4
Other Services	23,900	23,767	23,967	24,033	24,133	0.4	1.0	0.7
Government	72,367	72,100	73,233	70,033	70,167	0.2	-3.0	-2.1
Federal Government	12,033	12,167	12,333	12,433	12,600	1.3	4.7	4.1
State Government	13,300	12,767	12,167	11,367	12,467	9.7	-6.3	-7.0
Local Government	47,033	47,167	48,733	46,233	45,100	-2.5	-4.1	-2.4
Unemployment Rate (%) <sup>3</sup>	5.1	5.5	5.7	6.2	5.1	-1.2	0.0	-0.3
Unemp Claims weekly – Initial <sup>4</sup>	473	-	-	-	-	-	-	-
Unemp Claims weekly – Continued <sup>4</sup>	5,041	-	-	-	-	-	-	-

Source: Bureau of Labor Statistics (BLS) and Division of Business and Economic Research (DBER).

1 – Some industries are volatile or subject to seasonality, including information and educational services.

2 – Percent changes may not be exact due to rounding.

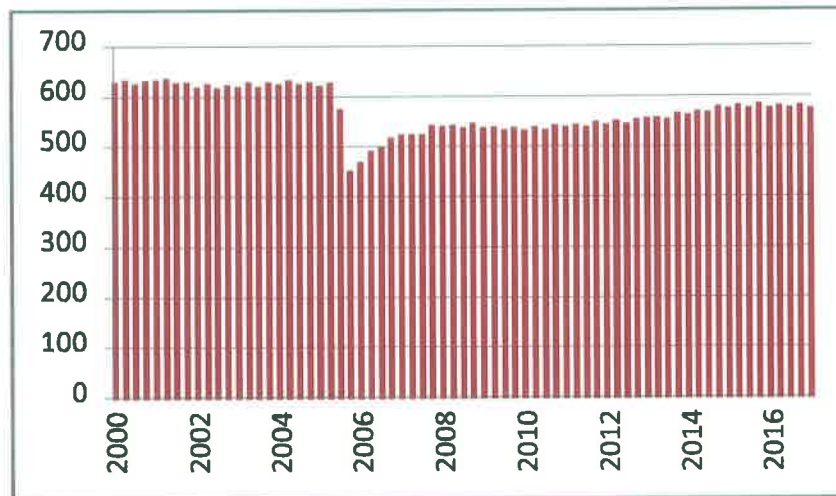
3 – Percent changes for these figures represent percentage points.

4 – Unemployment claims data is no longer available.

The NOMSA economy lost about 500 jobs (-0.1%) between the 2015 and 2016 calendar years (Table 1). In terms of number of jobs added, the most noticeable employment gains were in Health Care and Social Assistance (3,700 jobs or 5.7%), Leisure and Hospitality (1,900 jobs or 2.2%), and Administrative, Support, and Waste Management (1,200 jobs or 3.5%). Significant job losses were incurred in Mining and Logging (1,400 jobs or -20.6%), Information (1,500 jobs or -16.9%), Government (1,600 jobs or -2.1%), and Construction (2,000 jobs or -6.2%).

## EMPLOYMENT

Figure 1: Total Employment - New Orleans MSA Quarterly (Thousands of Jobs)

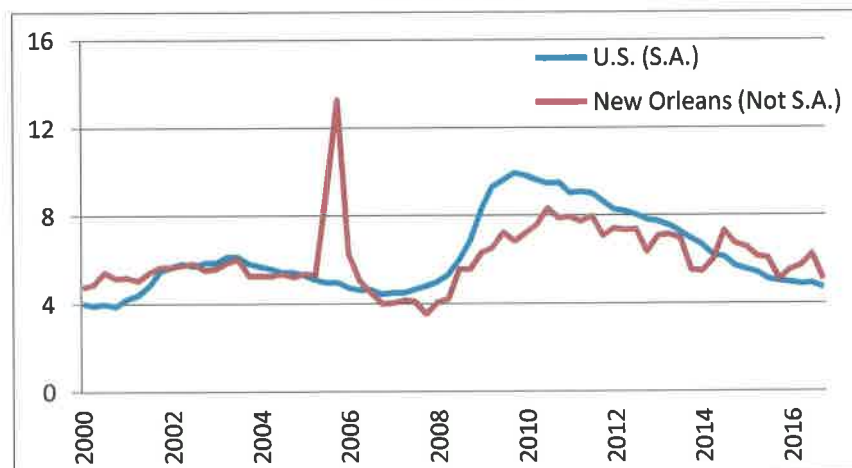


Source: BLS and DBER

Total nonfarm employment in the New Orleans Metro Area (NOMSA) has grown slowly over the years. During 2016, employment decreased slightly (-0.1%) over the previous year. Although most of the employment segments continue to recover from the recession, the number of jobs available in the area continue to lag employment figures registered before the storm in 2005 (Figure 1).

## UNEMPLOYMENT

Figure 2: Unemployment Rate - New Orleans MSA vs. U.S. Quarterly (%)

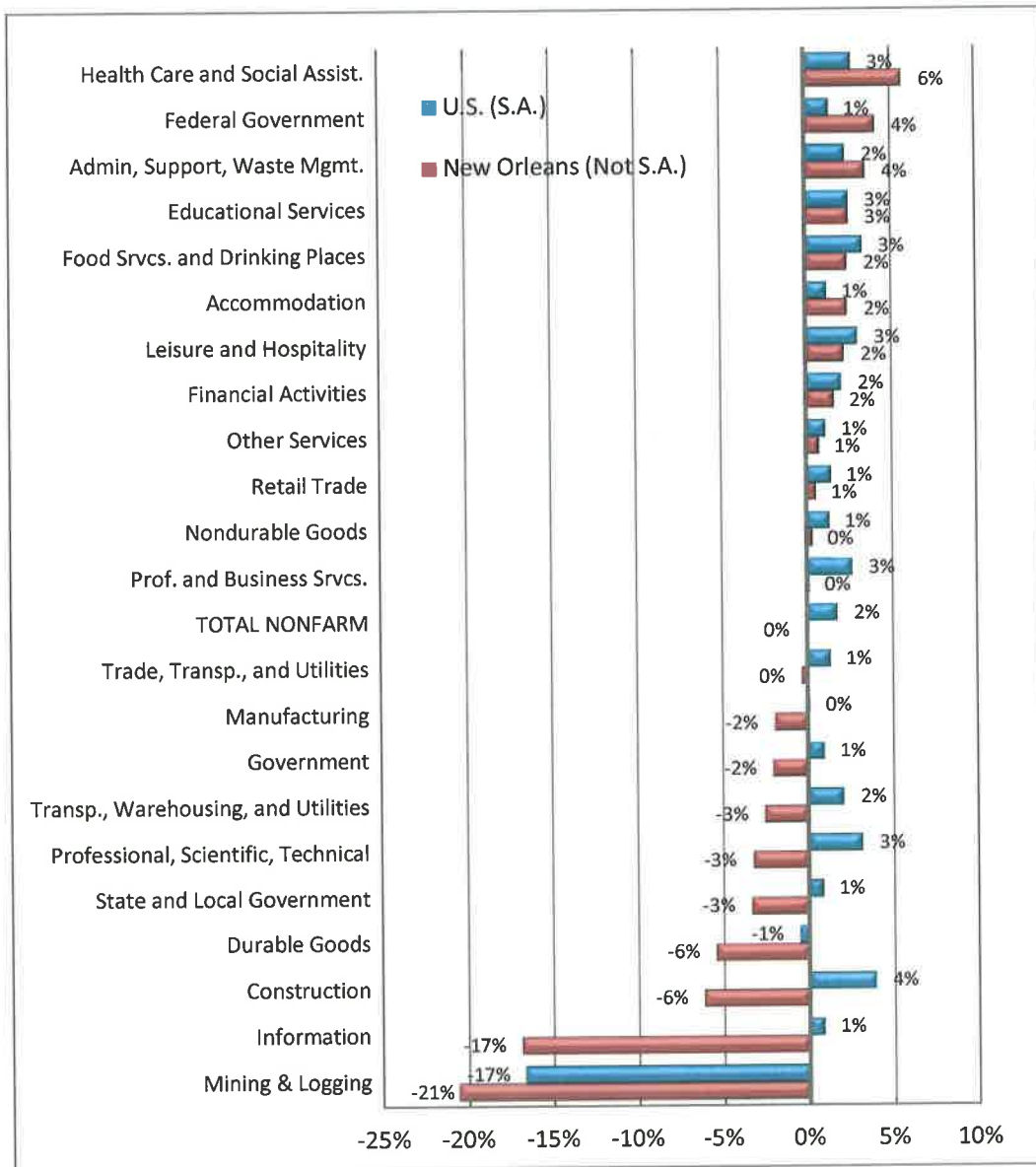


Source: BLS and DBER

After spiking in late 2014, unemployment in the New Orleans area had been declining, reaching a low of 5.1% in Q4 2015. However, the local unemployment rate has remained volatile since then and continues to exceed the national average. By last quarter of 2016, the national rate was 4.7%, down from 5.0% during the Q4 2015. The New Orleans metro area rate was 5.1%, on par with the rate recorded in the same quarter last year (Figure 2).

# EMPLOYMENT GROWTH

**Figure 3: Employment Growth - New Orleans MSA vs. U.S. 2015 FY over 2016 FY (%)**



Source: BLS and DBER.

Between 2015 and 2016, the U.S. Employment had an overall growth of 1.7%, while the New Orleans metropolitan area experienced a slight decrease of -0.1% (Figure 3). The most significant job losses in the New Orleans area in terms of growth rate were observed in Mining and Logging (-20.6%), Information (-16.9%), Construction (-6.2%), and Durable Goods (-5.5%). The U.S. as a whole had an increase on Information (0.8%) and Construction (3.9%), while it had a decrease on Mining and Logging (-16.7%) and Durable Goods (-0.6%).

Even though the Employment growth in the local area outpaced national growth in several sectors, including Health Care and Social Assistance (5.7% vs 2.7%), Federal Government (4.1% vs. 1.4%), Administrative, Support and Waste Management (3.5% vs. 2.3%), and Accommodation (2.4% vs. 1.2%), there were job losses in mining and logging.

## METROPOLITAN STATISTICAL AREA (MSA) ECONOMIC INDICATORS

Table 2: New Orleans MSA Economic Indicators – Quarterly Actuals, 2015:4 – 2016:4

Economic Indicators	2015:4	2016:1	2016:2	2016:3	2016:4	2016:3 to 2016:4	2015:4 to 2016:4	2015FY to 2016FY
	Percent Change <sup>6</sup>							
Crude Oil Price (\$ per barrel)	41.95	33.18	45.41	44.85	49.14	9.6	17.1	-11.4
Foreign Trade (Thou short tons)	8,384	8,812	8,342	8,309	8,384	0.9	0.0	0.8
Imports (Thou short tons)	3,081	3,735	3,934	3,827	3,081	-19.5	0.0	-2.9
Exports (Thou short tons)	5,304	5,077	4,408	4,482	5,304	18.3	0.0	3.8
Air Freight Cargo (Short tons)	11,594	11,618	4,106	13,799	13,995	1.4	20.7	-2.0
Hotel Room Sales (\$Mill) <sup>1</sup>	271.4	270.1	387.6	315.8	280.5	-11.2	3.4	-0.2
Convention Room Nights (Thou)	267	313	458	287	281	-2.3	5.2	0.0
Passenger Deplanements (Thou) <sup>7</sup>	1,382	1,338	1,482	1,286	1,453	13.0	5.2	4.3
Airport Capacity (Avg. Daily Seats)	18,202	18,397	19,059	17,241	18,911	9.7	3.9	3.4
Casino Admissions (Thou)	1,773	1,775	1,701	1,732	1,658	-4.3	-6.5	-6.5
Total Gambling Revenues (\$Mill)	126.1	128.1	124.0	121.8	122.4	0.5	-3.0	-6.8
Riverboat Casino Revenues (\$Mill)	54.8	56.0	56.7	56.5	54.4	-3.8	-0.8	-0.5
Harrah's Casino Revenues (\$Mill)	71.3	72.1	67.3	65.3	68.0	4.2	-4.6	-11.3
Construction Contracts (\$Mill) <sup>2</sup>	433.1	1,033.0	1,488.5	315.7	361.1	14.4	-16.6	92.6
Residential (\$Mill)	163.3	189.5	495.5	186.9	148.4	-20.6	-9.1	45.8
Non-Residential (\$Mill)	269.8	843.5	993.0	128.8	212.7	65.1	-21.2	126.7
Construction Contracts Non-Building (\$Mill) <sup>2</sup>	67.8	42.7	38.3	211.8	47.7	-77.5	-29.7	44.0
Construction Contracts in Progress (\$Mill) <sup>2</sup>	1,799	2,513	3,645	3,558	3,417	-4.0	89.9	83.7
Residential (\$Mill)	532	553	848	872	831	-4.7	56.3	41.3
Non-Residential (\$Mill)	1,268	1,960	2,797	2,686	2,586	-3.7	104.0	102.5
Construction Contracts in Progress Non-Building (\$Mill) <sup>2</sup>	1,946	1,879	1,634	1,957	1,731	-11.6	-11.1	-27.6
Housing Starts <sup>2</sup>	863	950	798	279	566	102.9	-34.4	-7.6
Foreclosures	422	453	392	338	292	-13.7	-30.8	-23.2
Bankruptcies (LA)	821	737	830	860	732	-14.9	-10.8	-5.3

1 – Hotel sales include Orleans and Jefferson parishes only.

2 – Construction figures are supplied by McGraw Hill Construction, Dodge.

3 – Population figures were revised for 2010 Census data released in April 2011 and Census Intercensal Estimates released in April 2017. Quarterly figures are a combination of data produced by U.S. Department of Census and DBER estimates using data from the Greater New Orleans Community Data Center.

4 – Per capita personal income was revised to include Census Intercensal Estimates figures released in April 2017.

5 – Motor vehicle sales are for all 7 parishes.

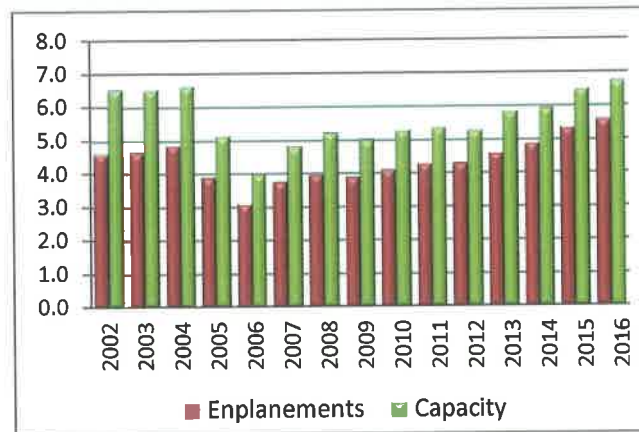
6 – Percent changes may not be exact due to rounding.

7 – Due to lag in data, figures are preliminary estimates.

Table 2 includes additional economic indicators for the New Orleans metro area. Overall, estimates indicate that the area has stabilized in terms of growth, with some indicators increasing, while others presented an overall decrease.

## AIRPORT

**Figure 4: Airport Activity - New Orleans MSA Annually (Millions)**

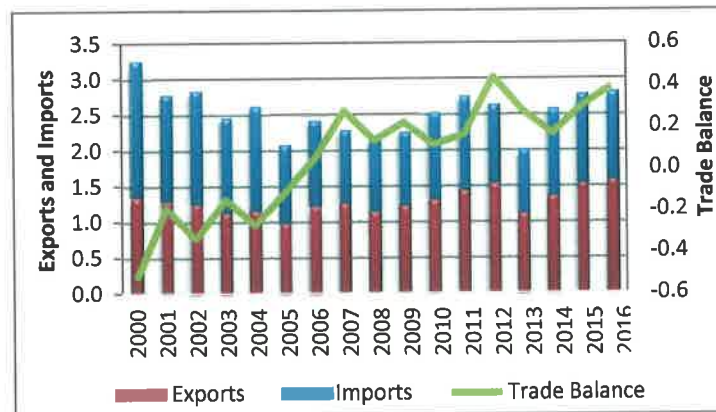


Source: Louis Armstrong International Airport (MSY), Bureau of Transportation Statistics (BTS).

Airport traffic has continued on an overall upward trend for both passengers and capacity (Figure 4). Quarterly traffic exceeded pre-Katrina figures for the first time in Q2 2015 and reached new records in 2016. The increase in passenger activity suggests that more visitors are arriving to the metro area, and that more travel is being consumed by local residents. Airport capacity also surpassed 2004 figures during 2016, adding nearly 600 average daily airplane seats over the past year.

## PORT

**Figure 5: Port Cargo - New Orleans  
Monthly Average (Millions of Short Tons)**



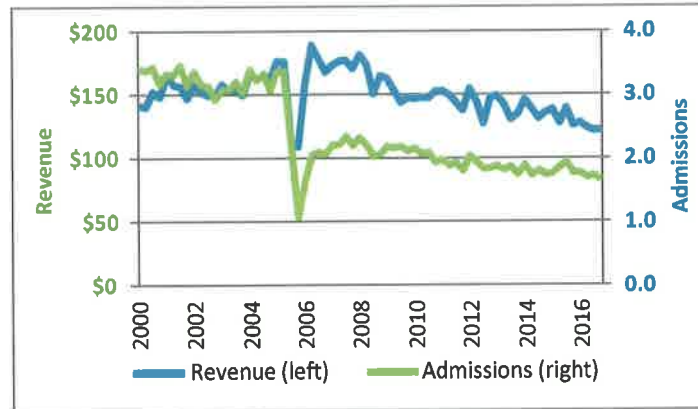
Source: Port of New Orleans

After reaching a post-Katrina low in 2013, foreign trade tonnage at the Port of New Orleans has climbed in recent years. Estimates show a modest 0.8% increase in overall port tonnage between 2015 and 2016, with a 3.8% increase in exports being balanced by a 2.9% decrease in imports. These trade indicators continue to display a lot of volatility. The trade balance reached a high of 2.2 million short tons in both Q4 of 2015 and 2016 (Figure 5).



## GAMING

**Figure 6: Casino Activity - New Orleans MSA Quarterly (Millions)**

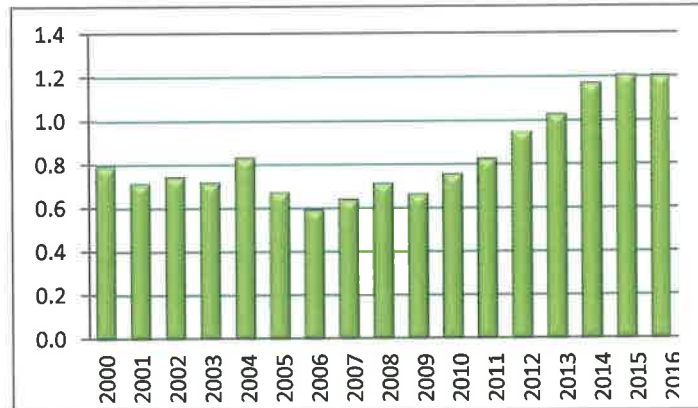


Source: Louisiana Gaming Commission

Admissions and revenues at casinos continued to weaken in 2016. These trends began immediately after Katrina and have continued since then (Figure 6). Admissions decreased by 6.5% over the previous year, and by 4.3% over the most recent quarter. While declining admissions have contributed to declining revenues, the annual decrease in casino spending was slightly higher than admissions (-6.8%).

## HOTEL SALES

**Figure 7: Hotel Taxable Sales - Orleans and Jefferson Parishes Annually (Billions)**

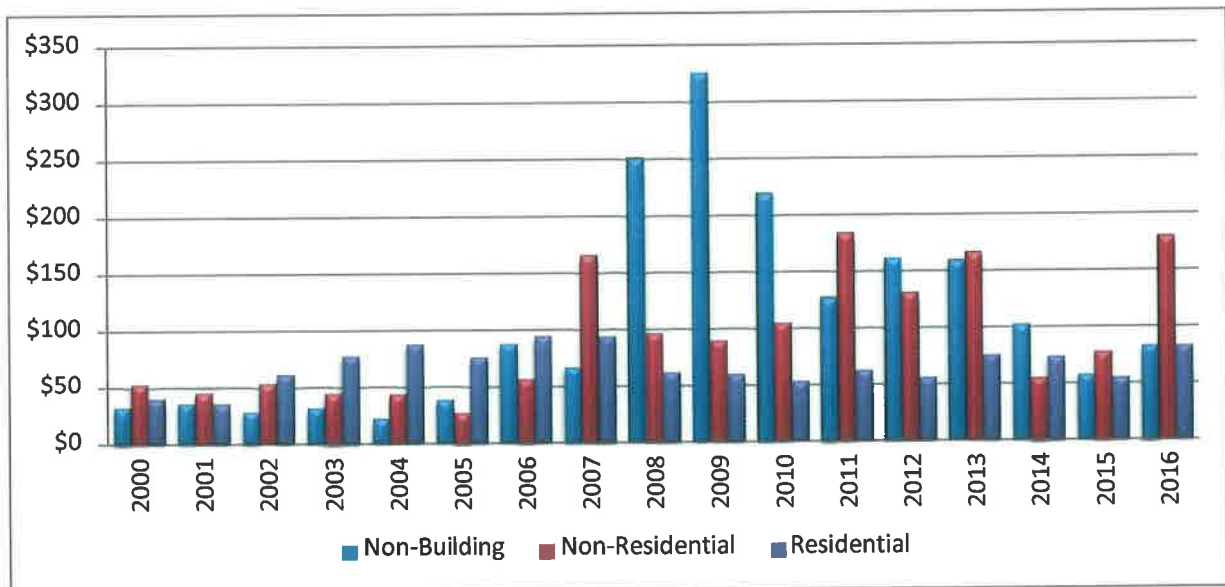


Source: Louisiana Department of Revenue

With an increasing number of out-of-town visitors who are willing to spend more money every year, hotels have experienced a solid growth in room sales over the last decade. Room sales have been increasing yearly since 2006. In 2006, room sales totaled nearly \$0.6 billion, while in 2014 this amount almost doubled, reaching \$1.2 billion. In 2016, hotel sales were at approximately \$1.3 billion, a slight decrease (-0.2%) over 2015 estimates (Figure 7).

## CONSTRUCTION

**Figure 8: Construction Contracts - New Orleans MSA Monthly Averages (Millions)**

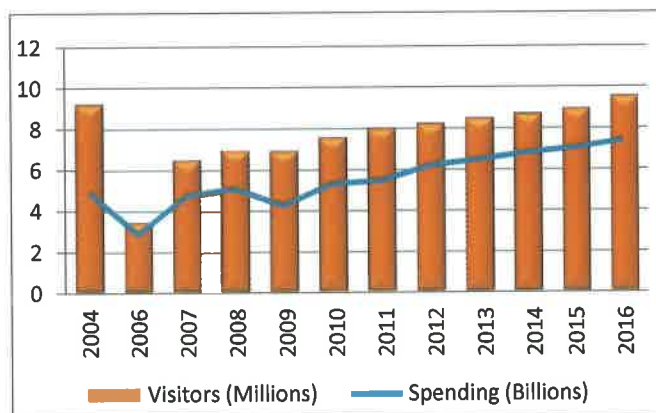


Source: McGraw Hill Construction, Dodge.

All types of construction increased substantially over the spending in the last two years. Between 2015 and 2016, residential construction increased by 46%, while non-residential grew significantly by 127%. Similarly, non-building construction gained 44% in activity. Spending activity in 2016 paralleled that of 2007 (Figure 8).

## VISITATION AND SPENDING

**Figure 9: Visitation and Spending - New Orleans MSA Annually**

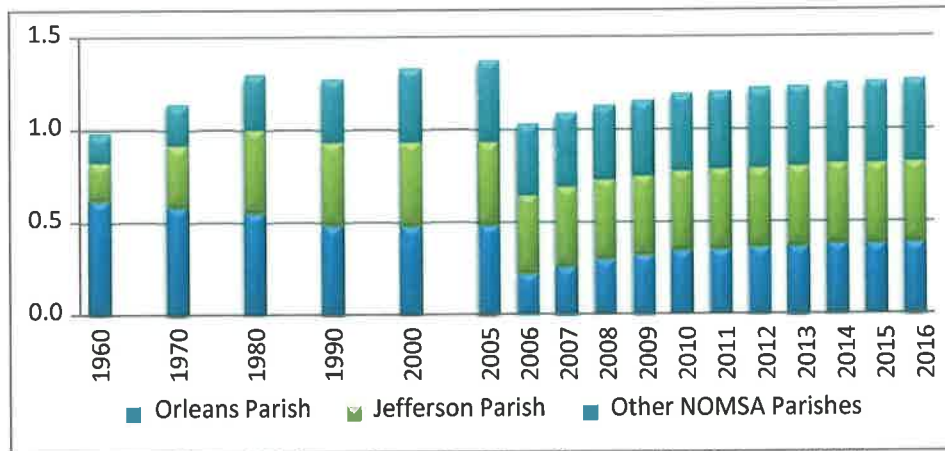


Source: Hospitality Research Center (HRC) Before 2012, spending estimates exclude gambling.

During 2016, nearly 10.45 million visitors came to the New Orleans area, representing a 7% increase over the 9.78 million visitors in 2015. Visitor spending, including gambling, reached \$7.41 billion, an increase of 5% over the \$7.05 billion in the previous year (Figure 9).

## POPULATION

**Figure 10: Population - New Orleans MSA  
Annually (Millions)**



*Source: U.S. Census, Greater New Orleans Community Data Center, and DBER.*

Over the last six years, population in the MSA area has grown modestly at a rate of about 1% annually has stabilized. Most recent 2016 estimates indicate that population increased by 0.8% compared 2015. With nearly 1.3 million residents, the current population is at 92% of the pre-Katrina population. Current population estimates are comparable to the figures recorded during 1990 (Figure 10).

## WATER SYSTEM MAJOR INITIATIVES

### Carrollton Water Purification Plant

- Painting of four 4 million gallon concrete ground storage tanks in progress.
- Rehabilitation of L3 flocculation basin completed.
- Rehabilitation of Filters 1A/B and 5A/B completed.
- Study of water storage tank mixing completed.
- Construction of new instrument air system for Sycamore Filter Gallery (\$1.3M) in progress.
- Design of new filter backwash pump for Sycamore Filter Gallery in progress.
- Design for replacement of the valves, actuators, and controls at Sycamore Filter Gallery in progress.
- Design of new sludge line to the river in progress.
- Design of new chemical bulk storage and feed facility in progress.
- Construction of two new elevated water storage tanks (\$36M) in progress.
- Design of Filter Backwash Recycle Pump Station improvements in progress.
- Conceptual design of Head House Renovations and Engineering Complex Hardening in progress.
- Conceptual design for the demolition of basins C7 and C8 in progress.
- Design of improvements to Claiborne Ave and Panola Pumping Stations in progress.
- Conceptual study of new electrical substation of west side of facility in progress.
- Conceptual study of Resiliency Complex including hardening of Engineering Building, rehabilitation of Head House Facility and new Infill Building in progress.

### Algiers Water Purification Plant

- Design of water storage tank mixing in progress.

- Design for improvements to the Algiers Water Plant in progress including replacement of Clarifier 1, improvements to Clarifiers 2, 3, and 4, a new fluorosilicic acid storage and feed system, and SCADA improvements.
- Purchase and installation of new sodium hypochlorite feed pumps and bulk storage tank completed.

### **Water Quality Laboratory**

- Cryptosporidium sampling for EPA's Long Term 2 Enhanced Surface Water Treatment Rule – Round 2 in progress.
- Completed triennial lead testing required by EPA's Lead and Copper Rule.

### **Water Distribution System**

- Contract for repairs and improvements to the Michoud Water Tank has been bid.
- Contract for construction of booster chloramination facility has been bid.
- Ongoing coordination with the Department of Public Works (DPW) to rehabilitate water mains associated with Joint Infrastructure Recovery Roads Program and other roadway rehabilitation projects.
- Managing twenty-two engineering consultants designing water main replacement projects for approximately sixty-two neighborhoods with a total program value of \$185M.

### **Water Pumping and Power**

- Turbine Generator 4 Refurbishment in progress.
- Installation of new 60Hz feeders from Carrollton Plant to DPS1 and new feeders RS-T6, RSC, and RSE completed.
- Installation of new generator load bank in progress.
- Contract for the refurbishment of Oak St. Pump Station has been bid.
- Construction for emergency fuel storage improvements in progress.
- Refurbishment of Boilers 1, and 3-6 and repairs to Boiler 2 in progress.
- Design of new boiler controls, piping, and SCADA in progress.
- Structural improvements to the power plant in progress.
- Design of refurbishment of Turbine Generators 3 and 5 in progress.
- Refurbishment of Pumps A and B is completed.
- Emergency repairs to Panola Pump Station are completed.
- Design for improvements to the three finished water pumping stations at the Carrollton Plant (Claiborne, Panola, and A&B) is in progress.
- Improvements to various 25Hz power distribution cables in progress.

## **SEWER SYSTEM MAJOR INITIATIVES**

### **Sewerage Pumping Stations**

- Construction completed for improvements to Sewer Pumping Stations 6, Dodt, Plum Orchard, and Lawrence.
- Construction completed for Sewer Pumping Stations Victoria, Bullard, Lake Forest, and Burke
- Design for structural improvements to SPSA and SPSD/DPS17 in progress.
- Improvements to Algiers Sewer Pumping Stations in progress.

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

- Construction of wetlands expansion cells and demonstration cells completed.
- Installation of automatic transfer switch completed.
- Installation of new waste sludge pump in South Pump House complete.
- Repair of process air blower complete.

- Demolition of Multiple Hearth Incinerator complete.
- Installation of new pure oxygen tank for the VSA complete.
- Design for the rehabilitation of the South Return Activated Sludge Pump House in progress.
- Installation of new emission control equipment for the fluidized bed incinerator in progress.
- Refurbishment of Clarifier #2 in progress.
- Installation of new bleach disinfection system in progress.
- Installation of transformer #5 and 5 new variable frequency drives for the effluent pump house in progress.
- Design for the installation of a sludge dryer in progress.
- Design for the purchase and installation of new switchgear and motor control centers in progress.
- Bio Reactor LEL replacement in progress.

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

- Installation of a new bleach disinfection system completed.
- Refurbishment of Primary Clarifier # 1 completed.
- Rebuild of Bar Screen # 3 completed.
- Replacement of Primary Scum Tanks completed.
- Rebuild of number three (3) main pump completed.
- Replacement of all three (3) grit pumps in headworks completed.
- West Bank auto transfer switch installation in progress.

### **Sewer Collection System**

- All sewer rehabilitation construction projects for the Ninth Ward Basin is complete.
- Design continuing for multiple point repair and replacement of sanitary sewers in the Carrollton, Mid-City and South Shore areas.
- Construction of sewer projects in the New Orleans East Basin in progress.
- Ongoing coordination with the City of New Orleans Department of Public Works in rehabilitating sewer, water and drainage systems as well as routine reconstruction and maintenance activities.

## **DRAINAGE SYSTEM MAJOR INITIATIVES**

### **Pumping Stations**

- Design to install emergency generators at five underpass pumping stations in progress.
- Engineering design and repair work to several underpass drainage pumping stations in progress funded by FEMA.
- Construction of the three new lakefront pumping stations (17<sup>th</sup> St., Orleans Ave., and London Ave.) is in progress by the Army Corps of Engineers.
- Design improvements for the Broad St. Underpass Station in progress.

### **Canals**

- Construction of Florida Ave Canal Phases II and II (\$119M) from Peoples Ave to Alvar St is 43% complete.
- Construction of Florida Ave Canal Phase IV (\$147.5M) is 29% complete.
- Napoleon Ave Canal Phase III (\$38.1M) from Carondelet St to Constance St is 98% complete.
- Construction of S. Claiborne Ave Phase I (\$27.1) from Monticello to Leonidas is 98% complete.
- Construction of S. Claiborne Ave Canal Phase II (\$27.8M) from Leonidas to Lowerline St is 100% complete.
- Jefferson Ave Canal Phase I (\$56M) from S. Claiborne Ave to Dryades is 70% complete.
- Jefferson Ave Canal Phase II (\$46.2M) from Dryades to Constance is 100% complete.

- Louisiana Ave Canal (\$82.6M) from S. Claiborne Ave. to Constance is in construction and is 79% complete.
- General de Gaulle Canal Improvements from Shirley Dr. to Holiday Dr. is in design and 85% complete.
- Green infrastructure projects from the creation of K-4<sup>th</sup> grade education program, providing professional workshops, and demonstration bioswales, green roofs and rain garden projects are in the permitting and construction phases.

### **Central Yard**

- Construction of Garage 1 and Garage 2 are is 100% and 75% complete, respectively.

## **FINANCIAL INFORMATION**

The Enterprise Fund's Water and Sewerage systems are financed by user fees. The unique characteristics of the services provided by the Drainage System of New Orleans require the use of Enterprise Fund accounting in order to obtain a meaningful measure of the cost of providing the services and capital maintenance. On November 14, 2012 the Board approved an eight-year program of sewer and water rate increases commencing January 1, 2013.

The sewer and water rates increase approximately 10% each year until the year 2020. This increase was approved by the New Orleans City Council on December 6, 2012. Revenues from the three-(3) mill, six-(6) mill and nine-(9) mill ad valorem taxes, which are restricted exclusively for drainage services, finance the Drainage System. These ad valorem taxes are the operating revenues of the drainage system. Also, there exists a potential for additional financing by additional user service charges.

### **Budgetary Control:**

The Board maintains an internal budgetary control through the preparation and monitoring of an annual operating and capital budget for the Water, Sewerage, and Drainage funds. Monthly statements of revenues, expenses, and changes in net assets, statements of net assets, and statements of cash flow are prepared for the water, sewer, and drainage system. Also, monthly budget reports are provided to department level managers to assist them in their fiscal responsibilities.

### **General Operations:**

The change in net position for the year ended December 31, 2016 was an increase of approximately \$140.7 million, as opposed to approximately \$153.4 million for the year ended December 31, 2015. The Board's total operating revenues increased by 5.5% to approximately \$192.7 million due primarily for rate increases effective January 1, 2016, and total non-operating revenue increased by 12.9% to approximately \$58.0 million.

### **Debt Administration 2016:**

Sewerage and Water Board of New Orleans sold bonds on December 2, 2015 for its water and sewer systems to fund its capital improvement program. The \$100,000,000 water system revenue bonds and \$100,000,000 sewer system revenue bonds were sold by the Board of Liquidation through a negotiated underwriting process.

The capital improvement program for the water system received \$104.2 million and the sewer system received \$103.9 million.

No additional debt was issued in 2016.

### **Sewerage and Water Board Achievements in 2016:**

S&WB completed 28,661 work orders in 2016. This includes emergency requests such as sewer overflows and customers without water. S&WB also completed the following work in 2016:

- Respond to 16,044 service requests in 2015 within an average of 59 minutes from when the call was received;
- Complete repaired 1,241 sewer mains repairs, 1,263 water mains repairs, 9,777 water service repairs, 738 hydrant repairs, and 915 valve repairs; and
- Met or exceeded all requirements of the consent decree, including inspecting 9,930 sewer mains, cleaned 1,273,826 feet of sewer main, and inspected 943,623 feet of sewer main.
- Performed preventive maintenance on 1,915 water main valves and 6,303 water hydrants.

As part of the City's Integrated Infrastructure Management System, S&WB is implementing opportunities to facilitate, link, and leverage with City assets. S&WB is also collaborating with the New Orleans Redevelopment Authority on green infrastructure pilot projects like rain gardens in neighborhoods across the city.

Delgado Community College began training the next generation of certified water infrastructure personnel to work at S&WB with the assistance of a \$1.5 million grant announced by the GE Foundation to fund the program. This work aligns with Mayor Landrieu's Economic Opportunity Strategy focused on job training based on employer needs and creating pathways to prosperity for all New Orleans residents.

S&WB successfully implemented a new Customer Service Management System and took over responsibilities for servicing calls for the sanitation system.

Citizens of New Orleans approved continuance of an ad valorem tax in the amount of 4.46 mills on property subject to taxation beginning in 2017 and ending in 2016, providing an estimated \$15,400,000 for the purposes of construction, operating, and maintaining the drainage system.

### **Looking Forward to 2017**

In 2017, S&WB is scheduled to begin construction on over \$221 million in capital improvements, including a number of important water, sewer and drainage projects. Highlights include the water hammer mitigation project, major improvements to the S&WB's power generation system, water and sewer system line replacements, water point repairs, drainage canal improvements, and drainage pumping projects.

The Board is performing a readiness assessment for implementing Automated Metering Infrastructure and is looking forward to implementation of a Human Resources, Timekeeping, and Payroll System and expanded utilization of Geographic Information System capabilities in 2017.

S&WB is contemplating issuance of additional revenue bonds for the sewerage system in fourth quarter of 2017.

### **Other Information**

State Statutes and covenants governing outstanding bond issues require an annual audit of the Board's financial records by independent certified public accountants. The accounting firm of Postlethwaite & Netterville was selected by the Board to perform this audit through a competitive bid process. The independent auditors' report on the basic financial statements is included in the Financial Section of the report. The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to Sewerage and Water Board of New Orleans for its Comprehensive Annual Financial Report for the fiscal year ended December 31, 2015. 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 comprehensive annual financial report whose contents conform to program standards. Such CAFR must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one (1) year only. The Sewerage and Water Board of New Orleans has received a Certificate of Achievement for thirty-three (33) years. We believe our current report continues to conform to the Certification of Achievement Program requirements and we are submitting it to GFOA.

## ACKNOWLEDGMENTS

The Comprehensive Annual Financial Report was prepared by the dedicated staff of the Director's Office, particularly the Finance Administration and Printing Department. Additionally, we realize that the cooperation of each Department of the Sewerage & Water Board of New Orleans is essential, and we appreciate the willingness to work together toward this endeavor.

We also wish to thank the members of the Board for their interest and support in our efforts to achieve greater fiscal efficiency and accountability.

Yours very truly,



Cedric S. Grant  
Executive Director



Robert K. Miller  
Deputy Director/Chief Financial Officer



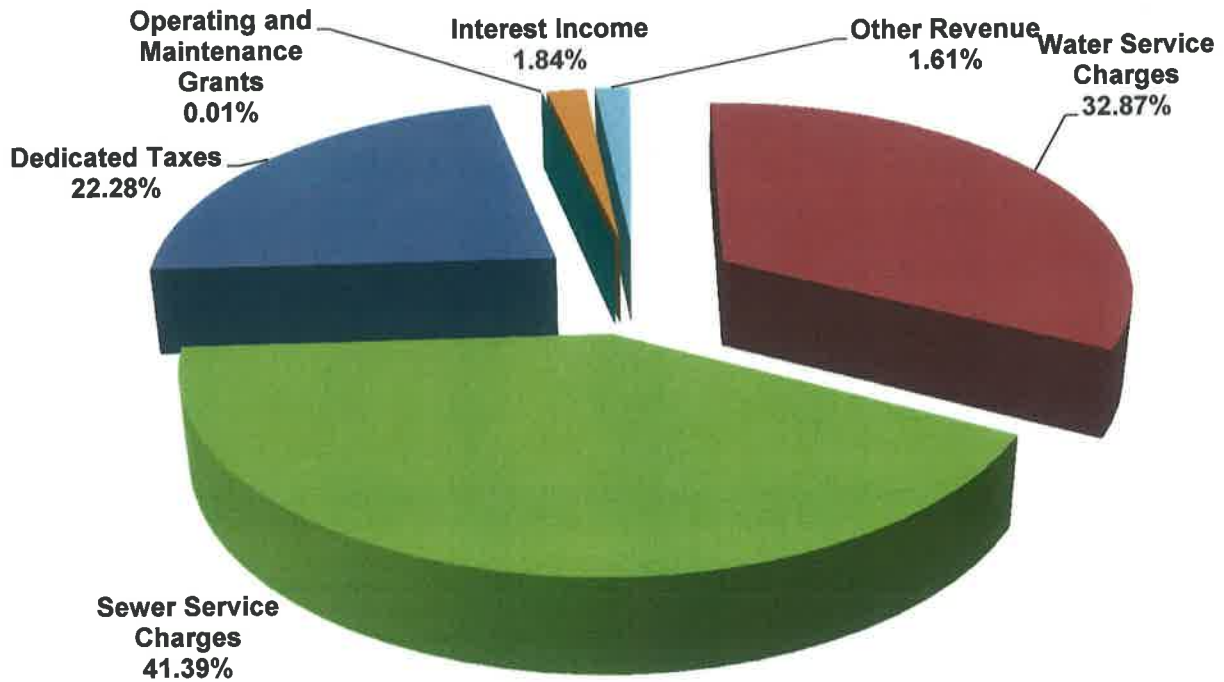
Rosita P. Thomas  
Finance Administrator



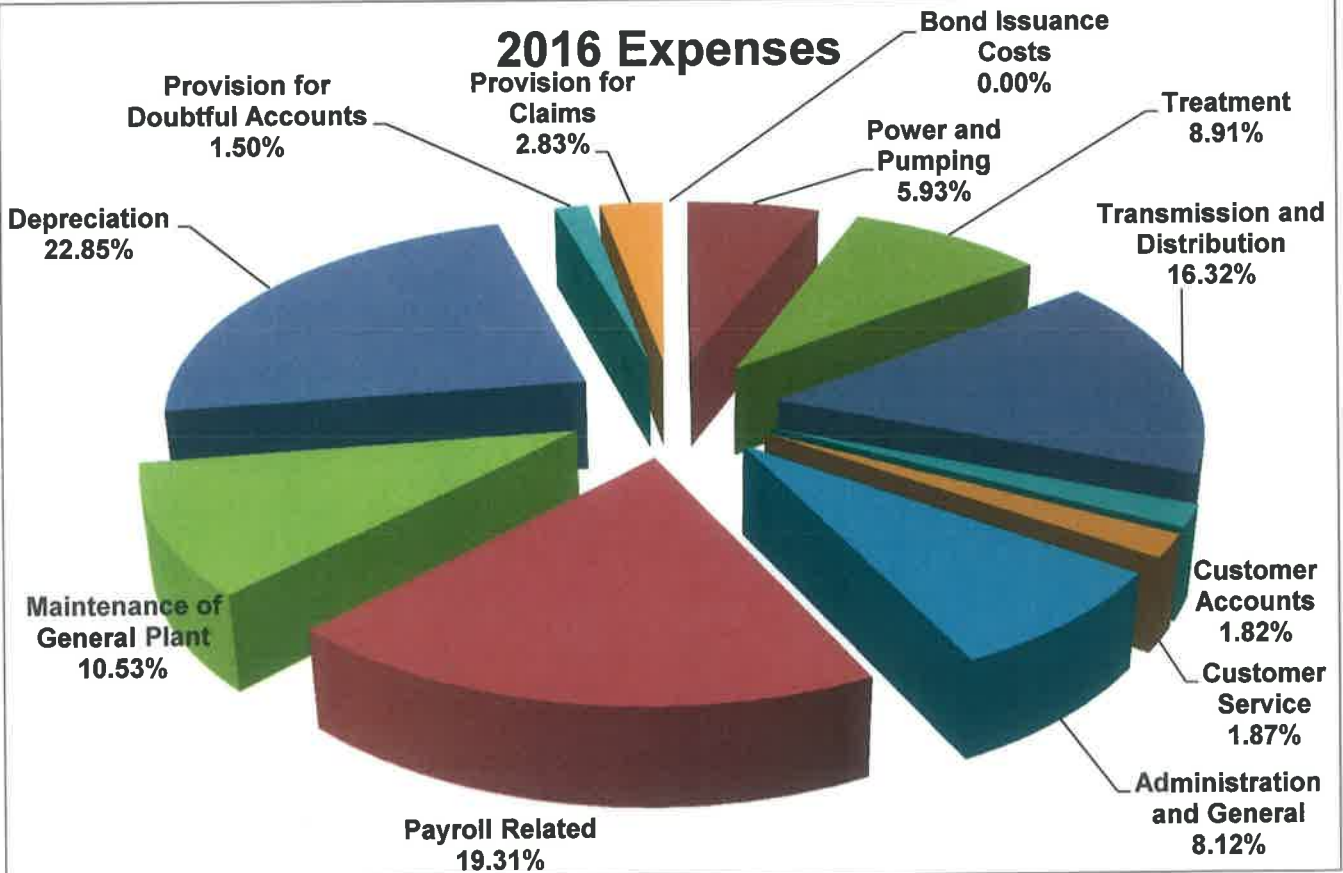
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Sewerage and Water Board of New Orleans

2016 Revenue



2016 Expenses



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Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Sewerage and Water Board  
of New Orleans, Louisiana**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**December 31, 2015**

Executive Director/CEO

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**OFFICERS  
of  
SEWERAGE AND WATER BOARD  
OF NEW ORLEANS**

December 31, 2016

---

MITCHELL J. LANDRIEU.....President  
(Mayor of City of New Orleans)

SCOTT JACOBS.....President Pro-Tem

CEDRIC S. GRANT.....Executive Director

ROBERT MILLER.....Deputy Director/Chief Financial Officer

RONALD DOUCETTE.....Deputy Director/Security

KIMBERLY JOHNSON.....Deputy Director/Continuous Improvement

SHARON JUDKINS.....Deputy Director/Administration

LISA MARTIN.....Deputy Director/Communications

VALERIE RIVERS.....Deputy Director/Logistics

BRUCE ADAMS.....Deputy General Superintendent

JOSEPH BECKER.....General Superintendent

NOLAN LAMBERT.....Special Counsel

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

December 31, 2016

---

MITCHELL J. LANDRIEU.....Mayor  
SCOTT JACOBS.....President Pro-Tem  
ALAN ARNOLD.....Board of Liquidation Appointment  
RALPH JOHNSON.....Board of Liquidation Appointment  
ROBIN BARNES.....At-Large Appointment  
ERIC BLUE.....Council District A Appointment  
SCOTT JACOBS.....Council District B Appointment  
KERRI KANE.....Council District C Appointment  
MARION BRACY.....Council District D Appointment  
Dr. TAMIKA DUPLESSIS.....Council District E Appointment  
JOSEPH PEYCHAUD.....Consumer/Community Advocate  
KIMBERLY THOMAS, JD.....Consumer/Community Advocate

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

December 31, 2016

---

**BOARD OF DIRECTOR'S MEETING**

MAYOR MITCHELL LANDRIEU, President

SCOTT JACOBS – President Pro-Tem

ALAN ARNOLD  
MARION BRACY  
KERRI KANE

ROBIN BARNES  
DR. TAMIKA DUPLESSIS  
JOSEPH PEYCHARD

ERIC BLUE  
SCOTT JACOBS  
KIMBERLY THOMAS

**BOARD OF TRUSTEES MEETING**

MAYOR MITCHELL LANDRIEU, President

SCOTT JACOBS – President Pro-Tem

ALAN ARNOLD  
MARION BRACY  
RALPH JOHNSON  
CHANTE' POWELL-PIERRE  
JOHN WILSON III

ROBIN BARNES  
DR. TAMIKA DUPLESSIS  
KERRI KANE  
MARVIN RUSSELL, JR.

ERIC BLUE  
HAROLD HELLER, JR.  
JOSEPH PEYCHARD  
KIMBERLY THOMAS

**AUDIT COMMITTEE MEETING**

DR. TAMIKA DUPLESSIS - Chairperson

MARION BRACY - Vice Chairperson

ROBIN BARNES

ERIC BLUE

SCOTT JACOBS

**FINANCE AND ADMINISTRATION COMMITTEE MEETING**

SCOTT JACOBS – Chairperson

JOSEPH PEYCHAUD – Vice Chairperson

DR. TAMIKA DUPLESSIS

KERRI KANE

KIMBERLY THOMAS

**GOVERNANCE COMMITTEE MEETING**

KERRI KANE – Chairperson

ALAN ARNOLD – Vice Chairperson

ROBIN BARNES

KIMBERLY THOMAS

**PENSION COMMITTEE MEETING**

JOSEPH PEYCHAUD – Chairperson

SCOTT JACOBS – Vice Chairperson

ALAN ARNOLD  
RALPH JOHNSON  
JOHN WILSON III

ERIC BLUE  
CHANTE POWELL-PIERRE

HAROLD HELLER, JR.  
MARVIN RUSSELL, JR.

**PLUMBING CONFERENCE COMMITTEE MEETING**

ALAN ARNOLD – Chairperson

JOSEPH BECKER

JAY ARNOLD  
RONNIE CROSBY

JIM FINLEY

MARION BRACY

**STRATEGY COMMITTEE MEETING**

MARION BRACY – Chairperson

ROBIN BARNES – Vice Chairperson

DR. TAMIKA DUPLESSIS

KERRI KANE

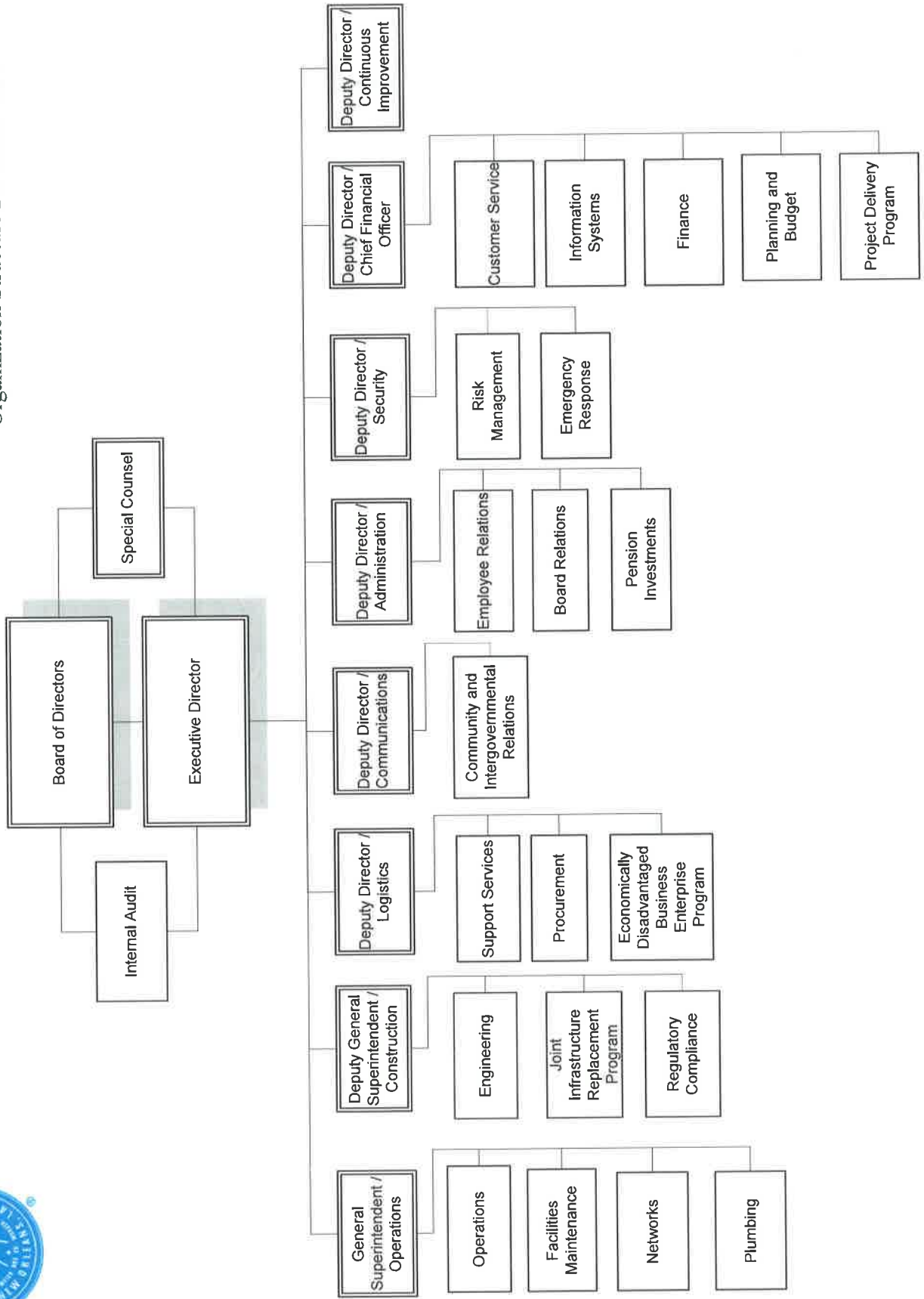
KIMBERLY THOMAS

**MICHAEL CONEFRY & COMPANY, ACTUARY**



# SEWERAGE AND WATER BOARD OF NEW ORLEANS

Organization Structure December 2016



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

December 31, 2016

**EXECUTIVE DIRECTOR**  
CEDRIC S. GRANT

**DEPUTY DIRECTOR/SECURITY**  
RONALD DOUCETTE

**DEPUTY DIRECTOR/CONTINUOUS IMPROVEMENT**  
KIMBERLY JOHNSON

**DEPUTY DIRECTOR/ADMINISTRATION**  
SHARON JUDKINS

**DEPUTY DIRECTOR/COMMUNICATIONS**  
LISA MARTIN

**DEPUTY DIRECTOR/CHIEF FINANCIAL OFFICER**  
ROBERT MILLER

**DEPUTY DIRECTOR/LOGISTICS**  
VALERIE RIVERS

**DEPUTY GENERAL SUPERINTENDENT/CONSTRUCTION**  
BRUCE ADAMS

**GENERAL SUPERINTENDENT/OPERATIONS**  
JOSEPH BECKER

**SPECIAL COUNSEL**  
NOLAN LAMBERT

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
DIVISION HEADS OF DEPUTY DIRECTOR**

December 31, 2016

**RONALD DOUCETTE  
DEPUTY DIRECTOR/SECURITY**

---

**RISK MANAGEMENT, SAFETY, and WORKERS COMPENSATION**

FELICIA LOVINCE

**EMERGENCY RESPONSE**

JASON HIGGINBOTHAM

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
DIVISION HEADS OF DEPUTY DIRECTOR**

December 31, 2016

**KIMBERLY JOHNSON  
DEPUTY DIRECTOR/CONTINUOUS IMPROVEMENT**

---

VACANT

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
DIVISION HEADS OF DEPUTY DIRECTOR**

December 31, 2016

**SHARON JUDKINS  
DEPUTY DIRECTOR/ADMINISTRATION**

---

**BOARD INFORMATION and RECORDS CUSTODIAN**

KATHLEEN LaFRANCE

**COMPENSATION/ RECRUITMENT**

VERNON MARTIN, III

**LABOR RELATIONS/PENSION/WORK PLANNING and EVALUATIONS**

TARA BROWN

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
DIVISION HEADS OF DEPUTY DIRECTOR**

December 31, 2016

**LISA MARTIN  
DEPUTY DIRECTOR / COMMUNICATIONS**

---

**COMMUNITY and INTERGOVERNMENTAL RELATIONS**

**ROBERT JACKSON**

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
DIVISION HEADS OF DEPUTY DIRECTOR**

December 31, 2016

**ROBERT K. MILLER  
DEPUTY DIRECTOR/CHIEF FINANCIAL OFFICER**

---

**FINANCE ADMINISTRATION**  
ROSITA THOMAS

**INFORMATION SYSTEMS ADMINISTRATION**  
MELINDA NELSON

**OPERATING/ CAPITAL BUDGET AND FINANCIAL PLANNING**  
DEXTER JOSEPH

**PROJECT DELIVERY UNIT**  
KATIE DIGNAN

**REVENUE AND CUSTOMER SERVICES ADMINISTRATION**  
JACQUELINE SHINE

**INTERNAL AUDIT**  
RAYMOND GABLE

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
DIVISION HEADS OF DEPUTY DIRECTOR/LOGISTICS**

December 31, 2016

**VALERIE RIVERS  
DEPUTY DIRECTOR /LOGISTICS**

---

**WAREHOUSE/BUILDING MAINTENANCE/CANAL MAINTENANCE/FLEET MANAGEMENT**

JOHN WILSON

**PURCHASING**

WILLIE MINGO

**ECONOMICALLY DISADVANTAGED BUSINESS PROGRAM**

VACANT



**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
DIVISION HEADS OF GENERAL SUPERINTENDENT**

December 31, 2016

**JOSEPH BECKER  
GENERAL SUPERINTENDENT/OPERATIONS**

---

**WATER DISTRIBUTION MAINTENANCE and SEWER  
COLLECTION MAINTENANCE**

STEVE BASS

**POWER PRODUCTION and DISTRIBUTION/WATER TREATMENT and PUMPING/  
WASTEWATER TREATMENT OPERATION/SEWER PUMPING and DRAINAGE  
PUMPING/STREET DRAINAGE MAINTENANCE**

VINCENT FOUCHI

**FACILITY MAINTENANCE**

GABE SIGNORELLI

**PLUMBING**

JAY ARNOLD

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
DIVISION HEADS OF DEPUTY GENERAL SUPERINTENDENT**

December 31, 2016

**BRUCE ADAMS  
DEPUTY GENERAL SUPERINTENDENT/CONSTRUCTION**

---

**CAPITAL PLANNING/WATER TREATMENT, WASTEWATER TREATMENT, PUMPING,  
ELECTRICAL and NETWORKS ENGINEERING**

RON SPOONER

**ENVIRONMENTAL AFFAIRS and REGULATORY COMPLIANCE**

ANN WILSON

**JOINT INFRASTRUCTURE REPLACEMENT PROGRAM**

RICK HOFFER

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# FINANCIAL SECTION



*Filter media in Claiborne Filter No. 5 is being replaced as part of a comprehensive rehabilitation of the rapid sand filters at the Claiborne Filter Gallery. Rapid Sand Filtration to remove fine particulate matter is the final step in our treatment process. These filters consist of layers of sand and anthracite supported by gravel. The filters are cleaned by backwashing at least once per week and the filter media in them is replaced every ten years. In these pictures, workers have removed the old filter media and are installing the gravel layer of the new filter media.*



*Sewerage and Water Board is making system-wide upgrades to its water, sewer, drainage and power systems. This electrical feeder cable installation is an upgrade to the power generation system. The Board's Power Generation System went on-line in the early 1900s and has served the city well through the years. This project will upgrade, replace or retire many of the service lines, thereby enhancing the life of the power system for years to come. These underground electrical lines or cables called feeders provide power to critical sewer and drainage pumping stations through many distribution routes around the city. This photo captures a cable being pulled underground approximately 1,000 feet to a manhole that leads to a pumping station. It will provide more reliable power to the station.*



30<sup>th</sup> Floor, Energy Centre, 1100 Poydras Street - New Orleans, LA 70163-3000  
One Galleria Boulevard, Suite 2100 - Metairie, LA 70001  
800-201-7332 Phone - 504-837-5990 Phone - 504-834-3609 Fax - [pncpa.com](http://pncpa.com)

A Professional Accounting Corporation

## **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) as of and for the years ended December 31, 2016 and 2015, 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, 2016 and 2015, 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.

## 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-19 and the schedules presented on pages II-66 through II-68 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 Information, and Supplementary Information 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 27, 2017, 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 27, 2017

## SEWERAGE & WATER BOARD OF NEW ORLEANS

### MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2016 AND 2015

This section of Sewerage & Water Board of New Orleans' (the Board) annual financial report presents a discussion and analysis of the Board's financial performance during the fiscal years that ended December 31, 2016 and 2015. 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

The Board adopted a financial plan for 2011 through 2020 that resulted in improved debt service coverage, increased liquidity, increased funding for operations and maintenance, and full funding for the capital improvement programs. This financial plan was updated in late 2016 to cover 2017 through 2020.

Recovery from Hurricane Katrina and the resulting flooding continued to be a significant event during 2016. Repairs and replacements to the water, sewerage, and drainage systems, and rehabilitation and replacement of buildings will continue through 2025.

#### Enterprise Fund

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

##### 2016

- The Board's additions to its major systems approximated \$266.1 million.
- The Southeast Louisiana (SELA) drainage system project, a major upgrade by the Corps of Engineers, resulted in additions of approximately \$122.3 million to work in progress during the year.
- Federal Emergency Management Agency (FEMA) Disaster Public Assistance grants revenues totaled approximately \$21.9 million in Disaster Assistance grants and \$18.6 million in Hazard Mitigation grants for capital contributions.
- Revenues from Water and Sewer services increased by approximately \$14.3 million to a total of approximately \$188.6 million for the year ended December 31, 2016.

##### 2015

- The Board's additions to its major systems approximated \$258.2 million.
- The Southeast Louisiana (SELA) project, which is a major upgrade to the drainage system by the Corps of Engineers, resulted in additions of approximately \$131.8 million to work in progress during the year.
- Federal Emergency Management Agency (FEMA) Disaster Public Assistance grants revenues totaled approximately \$24.8 million in Disaster Assistance grants and \$14.3 million in Hazard Mitigation grants for capital contributions.



## SEWERAGE & WATER BOARD OF NEW ORLEANS

### MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2016 AND 2015

#### **Pension Trust Fund**

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

#### **2016**

The net appreciation of the fair value of investments was \$11.8 million in 2016 compared to a net depreciation of \$5.0 million in 2015. The net position restricted for pension benefits increased \$1.9 million during 2016 to \$224.4 million at December 31, 2016.

#### **2015**

The net depreciation of the fair value of investments was \$5.0 million in 2015 compared to a net appreciation of \$10.8 million in 2014. The net position restricted for pension benefits decreased \$14.1 million during 2015 to \$222.4 million at December 31, 2015.

#### **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.

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2016 AND 2015**

**Fund Financial Statements – Pension Trust Fund**

The Board's 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.

**FINANCIAL ANALYSIS OF THE BOARD**

**ENTERPRISE FUND**

**2016 Net Position**

The Board's total assets and deferred outflows at December 31, 2016 were approximately \$3.2 billion, a 6.1% increase from December 31, 2015 (see Table A-1).

Table A-1 Sewerage & Water Board of New Orleans Net Position				
	2016	2015	Increase (Decrease)	Increase (Decrease)
Current unrestricted assets	\$ 219,980,110	\$ 187,055,968	\$ 32,924,142	17.6%
Restricted assets	219,761,583	283,787,405	(64,025,822)	-22.6%
Property, plant, and equipment - net	2,744,691,660	2,526,881,205	217,810,455	8.6%
Other assets	11,824,788	11,230,019	594,769	5.3%
<b>Total assets</b>	<b>3,196,258,141</b>	<b>3,008,954,597</b>	<b>187,303,544</b>	<b>6.2%</b>
Deferred outflows of resources	20,506,855	23,034,899	(2,528,044)	-11.0%
<b>Total deferred outflows of resources</b>	<b>20,506,855</b>	<b>23,034,899</b>	<b>(2,528,044)</b>	<b>-11.0%</b>
<b>Total assets and deferred outflows</b>	<b>\$ 3,216,764,996</b>	<b>\$ 3,031,989,496</b>	<b>\$ 184,775,500</b>	<b>6.1%</b>
Current liabilities	\$ 119,385,673	\$ 112,494,485	\$ 6,891,188	6.1%
Long-term liabilities	866,560,942	833,881,798	32,679,144	3.9%
<b>Total liabilities</b>	<b>985,946,615</b>	<b>946,376,283</b>	<b>39,570,332</b>	<b>4.2%</b>
Deferred inflows of resources	2,396,433	2,924,898	(528,465)	-18.1%
<b>Total deferred inflows of resources</b>	<b>2,396,433</b>	<b>2,924,898</b>	<b>(528,465)</b>	<b>-18.1%</b>
Net position:				
Net investment in capital assets	2,415,192,603	2,009,322,572	405,870,031	20.2%
Restricted	217,654,082	281,919,904	(64,265,822)	-22.8%
Unrestricted	(404,424,737)	(208,554,161)	(195,870,576)	93.9%
<b>Total net position</b>	<b>2,228,421,948</b>	<b>2,082,688,315</b>	<b>145,733,633</b>	<b>7.0%</b>
<b>Total liabilities, deferred inflows, and net position</b>	<b>\$ 3,216,764,996</b>	<b>\$ 3,031,989,496</b>	<b>\$ 184,775,500</b>	<b>6.1%</b>

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

### **MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2016 AND 2015**

The net increase in total assets of \$187.3 million resulted primarily due to an increase in property, plant, and equipment of \$217.8 million and an increase in current unrestricted assets of \$32.9 million. The increase in current unrestricted assets is due primarily to the increase in cash and cash equivalents of \$18.9 million as a result of an increase in revenue and cash receipts from customer accounts. Restricted assets decreased \$64.0 million in 2016 mainly due to a decrease in restricted investments of approximately \$65.5 million used for capital expenditures. Long-term liabilities increased by \$32.7 million primarily due to an increase in the Southeast Louisiana Project liability of \$48.2 million. Deferred outflows of resources and deferred inflows of resources decreased by \$2.5 million and \$528,000, respectively, due to changes in actuary's assumption on investment returns and demographic factors related to the pension plan.

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2016 AND 2015**

**2015 Net Position**

The Board's total assets at December 31, 2015 were approximately \$3.0 billion, a 15.7% increase from December 31, 2014 (see Table A-2).

	2015	2014	Increase (Decrease)	Increase (Decrease)
Current unrestricted assets	\$ 187,055,968	\$ 142,627,550	\$ 44,428,418	31.1%
Restricted assets	283,787,405	126,226,933	157,560,472	124.8%
Property, plant, and equipment - net	2,526,881,205	2,319,999,281	206,881,924	8.9%
Other assets	11,230,019	10,753,170	476,849	4.4%
<b>Total assets</b>	<b>3,008,954,597</b>	<b>2,599,606,934</b>	<b>409,347,663</b>	<b>15.7%</b>
Deferred outflows of resources	23,034,899	8,101,400	14,933,499	184.3%
<b>Total deferred outflows of resources</b>	<b>23,034,899</b>	<b>8,101,400</b>	<b>14,933,499</b>	<b>184.3%</b>
<b>Total assets and deferred outflows</b>	<b>\$ 3,031,989,496</b>	<b>\$ 2,607,708,334</b>	<b>\$ 424,281,162</b>	<b>16.3%</b>
Current liabilities	\$ 112,494,485	\$ 120,746,138	\$ (8,251,653)	-6.8%
Long-term liabilities	833,881,798	556,181,825	277,699,973	49.9%
<b>Total liabilities</b>	<b>946,376,283</b>	<b>676,927,963</b>	<b>269,448,320</b>	<b>39.8%</b>
Deferred inflows of resources	2,924,898	1,475,322	1,449,576	98.3%
<b>Total deferred inflows of resources</b>	<b>2,924,898</b>	<b>1,475,322</b>	<b>1,449,576</b>	<b>98.3%</b>
Net position:				
Net investment in capital assets	2,009,322,572	2,013,060,377	(3,737,805)	-0.2%
Restricted	281,919,904	99,356,835	182,563,069	183.7%
Unrestricted	(208,554,161)	(183,112,163)	(25,441,998)	13.9%
<b>Total net position</b>	<b>2,082,688,315</b>	<b>1,929,305,049</b>	<b>153,383,266</b>	<b>8.0%</b>
<b>Total liabilities, deferred inflows, and net position</b>	<b>\$ 3,031,989,496</b>	<b>\$ 2,607,708,334</b>	<b>\$ 424,281,162</b>	<b>16.3%</b>

The net increase in total assets of \$409.3 million resulted primarily due to an increase in property, plant, and equipment of \$206.9 million, an increase of \$157.6 million in restricted assets, and an increase in current unrestricted assets of \$44.4 million. The increase in restricted assets was primarily due to unspent 2015 bond proceeds that are restricted for debt service and capital projects. The increase in current unrestricted assets is due primarily to the increase in cash and cash equivalents designated for capital projects of \$46.7 million as a result of reimbursements from the governments in addition to an increase in revenue and cash receipts from customer accounts. Long-term liabilities increased by \$277.7 million primarily due to an increase in long-term portion of bonds payable of \$209.0 million as a result of the issuance of the Series 2015 Water Revenue Bonds and Series 2015 Sewerage Revenue Bonds, in addition to an increase of \$49.0 million in the Southeast Louisiana Project liability. Furthermore, the net pension liability increased by \$17.3 million in 2015 to a total of \$77.0 million compared to a total of \$59.7 million in 2014. Deferred outflows of resources and deferred inflows of resources increased by \$14.9 million and \$1.4 million, respectively, due to changes in actuary's assumption on investment returns and demographic factors related to the pension plan.

## SEWERAGE & WATER BOARD OF NEW ORLEANS

### MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2016 AND 2015

#### 2016 Changes in Net Position

The change in net position for the year ended December 31, 2016 was an increase of approximately \$145.7 million, as opposed to approximately \$153.4 million for the year ended December 31, 2015. The Board's total operating revenues, excluding other revenue, increased by 8.2% to approximately \$188.6 million due primarily to rate increases effective January 1, 2016, and other revenue decreased by \$4.2 million due to a decrease in legal settlement in 2016. Total non-operating revenue increased by 19.2% to approximately \$61.3 million due to a combination of increases in property taxes. Capital contributions from federal grants and construction of Board property was approximately \$119.6 million resulting primarily from capital additions reimbursable under the FEMA Disaster Public Assistance and FEMA Hazard Mitigation grants of approximately \$21.9 million and \$18.6 million, respectively, and approximately \$79.5 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>2016</b>	<b>2015</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Operating revenues:				
Sales of water and delinquent fees	\$ 83,158,940	\$ 78,007,937	\$ 5,151,003	6.6%
Sewerage service charges	104,795,184	95,636,966	9,158,218	9.6%
Plumbing inspection and license fees	638,502	610,768	27,734	4.5%
Other revenue	4,078,380	8,290,157	(4,211,777)	-50.8%
<b>Total operating revenues</b>	<b>192,671,006</b>	<b>182,545,828</b>	<b>10,125,178</b>	<b>5.5%</b>
Operating expenses (Table A-4)	227,798,026	212,448,361	15,349,665	7.2%
Operating loss	(35,127,020)	(29,902,533)	(5,224,487)	-17.5%
Non-operating revenues:				
Property taxes	56,029,548	49,855,922	6,173,626	12.4%
Other taxes	564,050	581,395	(17,345)	-3.0%
Operating and maintenance grants	24,738	2,405	22,333	928.6%
Bond issuance costs	-	(1,510,657)	1,510,657	-100.0%
Investment income	4,634,999	2,457,528	2,177,471	88.6%
<b>Total non-operating revenues</b>	<b>61,253,335</b>	<b>51,386,593</b>	<b>9,866,742</b>	<b>19.2%</b>
Income before capital contributions	26,126,315	21,484,060	4,642,255	21.6%
Capital contributions	119,607,318	131,899,206	(12,291,888)	-9.3%
<b>Change in net position</b>	<b>145,733,633</b>	<b>153,383,266</b>	<b>(7,649,633)</b>	<b>-5.0%</b>
Net position, beginning of year	2,082,688,315	1,929,305,049	153,383,266	8.0%
Net position, end of year	\$ 2,228,421,948	\$ 2,082,688,315	\$ 145,733,633	7.0%

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2016 AND 2015**

<b>Table A-4</b>				
<b>Sewerage &amp; Water Board</b>				
<b>Operating Expenses</b>				
	<b>2016</b>	<b>2015</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Power and pumping	\$ 13,499,216	\$ 13,139,255	\$ 359,961	2.7%
Treatment	20,300,344	18,740,637	1,559,707	8.3%
Transmission and distribution	37,174,706	35,878,137	1,296,569	3.6%
Customer accounts	4,151,027	3,807,405	343,622	9.0%
Customer service	4,271,555	3,973,344	298,211	7.5%
Administration and general	18,506,107	16,848,253	1,657,854	9.8%
Payroll related	43,990,879	36,349,834	7,641,045	21.0%
Maintenance of general plant	23,979,309	27,148,505	(3,169,196)	-11.7%
Depreciation	52,060,674	51,661,651	399,023	0.8%
Provision for doubtful accounts	3,413,404	2,466,131	947,273	38.4%
Provision for claims	6,450,805	2,435,209	4,015,596	164.9%
<b>Total operating expenses</b>	<b>\$ 227,798,026</b>	<b>\$ 212,448,361</b>	<b>\$ 15,349,665</b>	<b>7.2%</b>

Total operating expenses increased by approximately \$15.3 million or 7.2% compared to 2015. Increase in provision for claims was mainly attributable to a \$4.2 million increase in general liabilities claims from 2015. In addition, payroll related costs increased by approximately \$7.6 million as a result of a \$5.4 million non-cash expense related to pension benefits and \$2.2 million increase in personnel costs. Maintenance of general plant decreased \$3.2 million as a result of a \$1.5 million decrease in expenditures on the central yard administrative building and a \$1.5 million decrease in expenditures on overall maintenance.

**2015 Changes in Net Position**

The change in net position for the year ended December 31, 2015 was an increase of approximately \$153.4 million, as opposed to approximately \$151.9 million for the year ended December 31, 2014. The Board's total operating revenues increased by 11.9% to approximately \$182.5 million due primarily for rate increases effective January 1, 2015, and total non-operating revenue increased by 11.1% to approximately \$51.4 million due to a combination of increases in property taxes and investment income. Capital contributions from federal grants and construction of Board property was approximately \$130.5 million resulting primarily from capital additions reimbursable under the FEMA Disaster Public Assistance and FEMA Hazard Mitigation grants of approximately \$24.8 million and \$14.3 million, respectively, and approximately \$85.7 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.

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2016 AND 2015**

<b>Table A-5</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Revenues , Expenses and Change in Net Position</b>				
	<b>2015</b>	<b>2014</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Operating revenues:				
Sales of water and delinquent fees	\$ 78,007,937	\$ 70,818,255	\$ 7,189,682	10.2%
Sewerage service charges	95,636,966	86,553,262	9,083,704	10.5%
Plumbing inspection and license fees	610,768	678,352	(67,584)	-10.0%
Other revenue	8,290,157	5,024,480	3,265,677	65.0%
<b>Total operating revenues</b>	<b>182,545,828</b>	<b>163,074,349</b>	<b>19,471,479</b>	<b>11.9%</b>
Operating expenses (Table A-4)	212,448,361	199,360,096	13,088,265	6.6%
Operating loss	(29,902,533)	(36,285,747)	6,383,214	17.6%
Non-operating revenues:				
Property taxes	49,855,922	47,534,646	2,321,276	4.9%
Other taxes	581,395	572,083	9,312	1.6%
Operating and maintenance grants	2,405	1,502	903	60.1%
Bond issuance costs	(1,510,657)	(2,649,339)	1,138,682	-43.0%
Investment income	2,457,528	811,263	1,646,265	202.9%
<b>Total non-operating revenues</b>	<b>51,386,593</b>	<b>46,270,155</b>	<b>5,116,438</b>	<b>11.1%</b>
Income before capital contributions	21,484,060	9,984,408	11,499,652	115.2%
Capital contributions	131,899,206	141,873,884	(9,974,678)	-7.0%
<b>Change in net position</b>	<b>153,383,266</b>	<b>151,858,292</b>	<b>1,524,974</b>	<b>1.0%</b>
Net position, beginning of year	1,929,305,049	1,777,446,757	151,858,292	8.5%
Net position, end of year	\$ 2,082,688,315	\$ 1,929,305,049	\$ 153,383,266	8.0%

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2016 AND 2015**

<b>Table A-6</b>				
<b>Sewerage &amp; Water Board</b>				
<b>Operating Expenses</b>				
	<b>2015</b>	<b>2014</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Power and pumping	\$ 13,139,255	\$ 13,227,389	\$ (88,134)	-0.7%
Treatment	18,740,637	19,527,000	(786,363)	-4.0%
Transmission and distribution	35,878,137	27,186,606	8,691,531	32.0%
Customer accounts	3,807,405	3,514,360	293,045	8.3%
Customer service	3,973,344	3,717,925	255,419	6.9%
Administration and general	16,848,253	16,976,430	(128,177)	-0.8%
Payroll related	36,349,834	32,488,264	3,861,570	11.9%
Maintenance of general plant	27,148,505	28,178,593	(1,030,088)	-3.7%
Depreciation	51,661,651	50,157,869	1,503,782	3.0%
Provision for doubtful accounts	2,466,131	1,940,782	525,349	27.1%
Provision for claims	2,435,209	2,444,878	(9,669)	-0.4%
<b>Total operating expenses</b>	<b>\$ 212,448,361</b>	<b>\$ 199,360,096</b>	<b>\$ 13,088,265</b>	<b>6.6%</b>

Total operating expenses increased by approximately \$13.1 million or 6.6% compared to 2014. Increase in transmission and distributions costs were mainly attributable to an increase of \$4.0 million in water point repairs and \$4.2 million in sewer point repairs in 2015 compared to 2014. In addition, payroll related costs increased by approximately \$3.9 million as a result of a \$3.4 million non-cash expense related to pension benefits.



**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2016 AND 2015**

**PENSION TRUST FUND**

**2016 Plan Net Position**

The Board's total plan assets and net position of its pension trust fund at December 31, 2016 was approximately \$224.4 million, a 0.9% increase from December 31, 2015 (see table A-7).

Plan net position increased by approximately \$1.9 million in 2016 primarily due to appreciation in fair market value of investment by approximately \$12.6 million and contributions of \$10.1 million offset by benefit payments and other deductions totaling \$20.7 million in 2016.

<b>Table A-7</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Pension Trust Fund Net Position</b>				
	<b>2016</b>	<b>2015</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Cash	\$ 40,495	\$ 317,096	\$ (276,601)	-87.2%
Investments	224,250,456	221,077,262	3,173,194	1.4%
Receivables	111,733	105,336	6,397	6.1%
Other assets	-	927,833	(927,833)	-100.0%
<b>Total assets</b>	<b>224,402,684</b>	<b>222,427,527</b>	<b>1,975,157</b>	<b>0.9%</b>
Other liabilities	\$ 46,423	\$ -	\$ 46,423	0.0%
<b>Total liabilities</b>	<b>46,423</b>	<b>-</b>	<b>46,423</b>	<b>0.0%</b>
<b>Plan net position</b>	<b>\$ 224,356,261</b>	<b>\$ 222,427,527</b>	<b>\$ 1,928,734</b>	<b>0.9%</b>

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2016 AND 2015**

**2015 Plan Net Position**

The Board's total plan assets and net position of its pension trust fund at December 31, 2015 was approximately \$222.4 million, a 6.0% decrease from December 31, 2014 (see table A-8).

Plan net position decreased by approximately \$14.1 million in 2015 primarily due to depreciation in fair market value of investments, by approximately \$4.1 million and contributions of \$10.3 million offset by benefit payments and other deductions totaling \$20.2 million in 2015.

<b>Table A-8</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Plan Net Position</b>				
	<b>2015</b>	<b>2014</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
Cash	\$ 317,096	\$ 1,950,862	\$ (1,633,766)	-83.7%
Investments	221,077,262	233,026,769	(11,949,507)	-5.1%
Receivables	105,336	146,366	(41,030)	-28.0%
Other assets	927,833	1,432,674	(504,841)	-35.2%
<b>Total assets</b>	<b>222,427,527</b>	<b>236,556,671</b>	<b>(14,129,144)</b>	<b>-6.0%</b>
<b>Plan net position</b>	<b>\$ 222,427,527</b>	<b>\$ 236,556,671</b>	<b>\$ (14,129,144)</b>	<b>-6.0%</b>

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2016 AND 2015**

**2016 Changes in Plan Net Position**

Change in net position increased by \$16.1 million mainly attributable to a \$12.6 million net investment income compared to a net investment loss of \$4.1 million in 2015. The increase in net investment income is due to overall market conditions and earnings from investments.

<b>Table A-9</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Change in Plan Net Position</b>				
	<b>2016</b>	<b>2015</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
<b>Additions:</b>				
Contributions	\$ 10,101,344	\$ 10,259,600	\$ (158,256)	-1.5%
Net (loss) income on investments	12,569,604	(4,144,141)	16,713,745	-403.3%
<b>Total additions</b>	<b>22,670,948</b>	<b>6,115,459</b>	<b>16,555,489</b>	<b>270.7%</b>
<b>Deductions:</b>				
Benefits	(15,757,292)	(15,281,673)	(475,619)	3.1%
Employee refunds	(421,087)	(351,266)	(69,821)	19.9%
Employee DROP contributions	(4,563,835)	(4,611,664)	47,829	-1.0%
<b>Total deductions</b>	<b>(20,742,214)</b>	<b>(20,244,603)</b>	<b>(497,611)</b>	<b>2.5%</b>
<b>Change in net position</b>	<b>1,928,734</b>	<b>(14,129,144)</b>	<b>16,057,878</b>	<b>-113.7%</b>
Plan net position, beginning of year	222,427,527	236,556,671	(14,129,144)	-6.0%
Plan net position, end of year	<b>\$ 224,356,261</b>	<b>\$ 222,427,527</b>	<b>\$ 1,928,734</b>	<b>0.9%</b>

**SEWERAGE & WATER BOARD OF NEW ORLEANS**

**MANAGEMENT'S DISCUSSION AND ANALYSIS  
YEARS ENDED DECEMBER 31, 2016 AND 2015**

**2015 Changes in Plan Net Position**

Net income (loss) on investments decreased by \$15.5 million or 136.5% during 2015 compared to 2014 due to market conditions, changes in investment mix, and deductions exceeding the additions in 2015. The decrease in plan net position of \$14.1 million resulted primarily from the decrease noted above in unrealized loss on investments of \$16.9 million and realized gain on sales of investments of \$11.9 million in 2015.

<b>Table A-10</b>				
<b>Sewerage &amp; Water Board of New Orleans</b>				
<b>Change in Plan Net Position</b>				
	<b>2015</b>	<b>2014</b>	<b>Increase (Decrease)</b>	<b>Increase (Decrease)</b>
<b>Additions:</b>				
Contributions	\$ 10,259,600	\$ 9,592,835	\$ 666,765	7.0%
Net (loss) income on investments	(4,144,141)	11,354,226	(15,498,367)	-136.5%
<b>Total additions</b>	<b>6,115,459</b>	<b>20,947,061</b>	<b>(14,831,602)</b>	<b>-70.8%</b>
<b>Deductions:</b>				
Benefits	(15,281,673)	(13,973,343)	(1,308,330)	9.4%
Employee refunds	(351,266)	(140,938)	(210,328)	149.2%
Employee DROP contributions	(4,611,664)	(4,634,674)	23,010	-0.5%
<b>Total deductions</b>	<b>(20,244,603)</b>	<b>(18,748,955)</b>	<b>(1,495,648)</b>	<b>8.0%</b>
<b>Change in net position</b>	<b>(14,129,144)</b>	<b>2,198,106</b>	<b>(16,327,250)</b>	<b>-742.8%</b>
Plan net position, beginning of year	236,556,671	234,358,565	2,198,106	0.9%
Plan net position, end of year	<b>\$ 222,427,527</b>	<b>\$ 236,556,671</b>	<b>\$ (14,129,144)</b>	<b>-6.0%</b>

## SEWERAGE & WATER BOARD OF NEW ORLEANS

### MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2016 AND 2015

#### CAPITAL ASSET AND DEBT ADMINISTRATION

##### 2016 Capital Assets

As of December 31, 2016, the Board had invested approximately \$3.67 billion in capital assets. Net of accumulated depreciation, the Board's net capital assets at December 31, 2016 totaled approximately \$2.74 billion. This amount represents a net increase (including additions and disposals, net of depreciation) of approximately \$214.6 million, or 8.5%, over December 31, 2015.

At December 31, 2016, the Board's budget for its 10 year capital improvements program totaled approximately \$2.68 billion including approximately \$1 billion for water, \$684.3 million for sewerage and \$935.7 million for 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, 2016, the Board has committed or appropriated \$49.5 million in investments for use in future capital projects and has approximately \$186.3 million remaining in restricted cash, cash equivalents, and investments for construction.

The capital improvements budget for 2017 is \$369.2 million, including \$111.3 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, 2016 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 2016.

##### 2015 Capital Assets

As of December 31, 2015, the Board had invested approximately \$3.40 billion in capital assets. Net of accumulated depreciation, the Board's net capital assets at December 31, 2015 totaled approximately \$2.53 billion. This amount represents a net increase (including additions and disposals, net of depreciation) of approximately \$206.9 million, or 8.9%, over December 31, 2014.

At December 31, 2015, the Board's budget for its 10 year capital improvements program totaled approximately \$2.57 billion including approximately \$1 billion for water, \$673.8 million for sewerage and \$919.1 million for 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, 2015, the Board has committed or appropriated \$68.9 million in investments for use in future capital projects and has approximately \$235.7 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, 2016 AND 2015

The capital improvements budget for 2016 is \$379.1 million, including \$185.7 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, 2015 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 2015.

#### **2016 Debt Administration**

The Board continues to make its regularly scheduled payments on its bonds. During 2016, \$14.8 million in principal payments were made.

The Louisiana Department of Environmental Quality has committed to loan the Board up to \$9 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 \$7.3 million at December 31, 2016.

See Note 6 for detailed long term debt activity during 2016.

#### **2015 Debt Administration**

During 2015, the Board issued \$100,000,000 in Series 2015 Sewerage Service Revenue Bonds with an original issue premium of \$12,826,410 and a final maturity of December 1, 2045. The Board also issued \$100,000,000 in Series 2015 Water Service Revenue Bonds with an original issue premium of \$12,686,122 and a final maturity of December 1, 2045. Bond proceeds of \$104,193,000 and \$103,936,000 were restricted for capital projects for Sewerage and Water, respectively.

The Board continues to make its regularly scheduled payments on its bonds. During 2015, \$12.9 million in principal payments were made.

The Louisiana Department of Environmental Quality has committed to loan the Board up to \$9 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 \$7.6 million at December 31, 2015.

See Note 6 for detailed long term debt activity during 2015.

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

### **MANAGEMENT'S DISCUSSION AND ANALYSIS YEARS ENDED DECEMBER 31, 2016 AND 2015**

#### **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. The Board also authorized a study to identify the long-term revenue requirement for the drainage system and implementation methodologies for potential new revenue streams.

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 maintain 90 days of cash monthly. The Board has exceeded the goals by 189 days and 389 days in the Water and Sewer system, respectively.

The total number of open accounts continues to increase modestly on an annual basis. The total open accounts in 2016 were 135,027, an increase of 1,123 over 2015 open accounts of 133,904.

#### **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.

## **BASIC FINANCIAL STATEMENTS**



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**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**STATEMENTS OF NET POSITION**  
**December 31, 2016 and 2015**

	<b>2016</b>	<b>2015</b>
<b>ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</b>		
Current assets:		
Unrestricted and undesignated		
Cash and cash equivalents	\$ 43,595,508	\$ 24,689,703
Accounts receivable:		
Customers, net of allowance	26,394,894	18,367,590
Taxes	9,863,262	8,044,268
Grants	63,578,486	52,808,428
Miscellaneous	1,703,577	3,415,995
Inventory of supplies	4,756,195	5,303,745
Prepaid expenses	617,810	1,379,165
Total unrestricted and undesignated	150,509,732	114,008,894
Designated cash, cash equivalents, and investments:		
Cash and cash equivalents designated for capital projects	65,578,148	68,926,336
Other	3,892,230	4,120,738
Total designated cash, cash equivalents, and investments	69,470,378	73,047,074
Total current assets	219,980,110	187,055,968
Noncurrent assets:		
Restricted cash, cash equivalents, and investments:		
Cash and cash equivalents restricted for capital projects	170,436,101	235,720,245
Debt service reserve	47,217,981	46,199,659
Health insurance reserve	2,107,501	1,867,501
Total restricted cash, cash equivalents, and investments	219,761,583	283,787,405
Property, plant and equipment	3,669,235,817	3,403,857,647
Less: accumulated depreciation	924,544,157	876,976,442
Property, plant and equipment, net	2,744,691,660	2,526,881,205
Other assets:		
Designated cash for customer deposits	11,773,473	11,178,704
Deposits	51,315	51,315
Total other assets	11,824,788	11,230,019
Total noncurrent assets	2,976,278,031	2,821,898,629
Total assets	3,196,258,141	3,008,954,597
Deferred outflows of resources		
Deferred amounts related to net pension liability	16,904,538	19,080,030
Deferred loss on bond refunding	3,602,317	3,954,869
Total deferred outflows of resources	20,506,855	23,034,899
Total assets and deferred outflows of resources	\$ 3,216,764,996	\$ 3,031,989,496

(Continued)

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**STATEMENTS OF NET POSITION**  
**December 31, 2016 and 2015**  
**(Continued)**

	2016	2015
LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION		
Current liabilities (payable from current unrestricted assets):		
Accounts payable	\$ 40,019,085	\$ 38,939,024
Due to City of New Orleans	394,882	154,760
Disaster Reimbursement Revolving Loan (Note 13)	11,098,232	14,094,172
Retainers and estimates payable	9,593,411	8,320,253
Due to pension trust fund	150,212	132,932
Accrued salaries	840,861	571,197
Accrued vacation and sick pay	9,822,495	9,500,827
Claims payable	15,654,076	10,682,012
Debt Service Assistance Fund loan payable	4,627,616	4,422,414
Advances from federal government	6,369,909	7,561,533
Other liabilities	106,388	153,791
	<u>98,677,167</u>	<u>94,532,915</u>
Total current liabilities (payable from current unrestricted assets):		
Current liabilities (payable from current restricted assets):		
Accrued interest	2,236,098	2,768,828
Bonds payable	17,627,000	14,827,000
Retainers and estimates payable	845,408	365,742
	<u>20,708,506</u>	<u>17,961,570</u>
Total current liabilities (payable from current restricted assets):		
Total current liabilities	<u>119,385,673</u>	<u>112,494,485</u>
Long-term liabilities:		
Claims payable	1,550,695	2,490,568
Net pension liability	80,749,658	76,967,564
Other postretirement benefits liability	73,580,341	67,579,016
Bonds payable, net of current maturities	482,308,158	502,731,633
Southeast Louisiana Project liability	163,995,508	115,703,588
Debt Service Assistance Fund loan payable, net of current maturities	52,603,109	57,230,725
Customer deposits	11,773,473	11,178,704
	<u>866,560,942</u>	<u>833,881,798</u>
Total long-term liabilities		
Total liabilities	<u>985,946,615</u>	<u>946,376,283</u>
Deferred inflows of resources:		
Deferred amounts related to net pension liability	2,396,433	2,924,898
	<u>2,396,433</u>	<u>2,924,898</u>
Total deferred inflows of resources		
Net position:		
Net investment in capital assets	2,415,192,603	2,009,322,572
Restricted for debt service	47,217,981	46,199,659
Restricted for capital improvements	170,436,101	235,720,245
Unrestricted	(404,424,737)	(208,554,161)
	<u>2,228,421,948</u>	<u>2,082,688,315</u>
Total net position		
Total liabilities, deferred inflows of resources, and net position	<u>\$ 3,216,764,996</u>	<u>\$ 3,031,989,496</u>

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, 2016 and 2015**

	<u>2016</u>	<u>2015</u>
Operating revenues:		
Sales of water and delinquent fees	\$ 83,158,940	\$ 78,007,937
Sewerage service charges	104,795,184	95,636,966
Plumbing inspection and license fees	638,502	610,768
Other revenue	4,078,380	8,290,157
	<u>192,671,006</u>	<u>182,545,828</u>
Total operating revenues		
Operating expenses:		
Power and pumping	13,499,216	13,139,255
Treatment	20,300,344	18,740,637
Transmission and distribution	37,174,706	35,878,137
Customer accounts	4,151,027	3,807,405
Customer service	4,271,555	3,973,344
Administration and general	18,506,107	16,848,253
Payroll related	43,990,879	36,349,834
Maintenance of general plant	23,979,309	27,148,505
Depreciation	52,060,674	51,661,651
Provision for doubtful accounts	3,413,404	2,466,131
Provision for claims	6,450,805	2,435,209
	<u>227,798,026</u>	<u>212,448,361</u>
Total operating expenses		
Operating loss	<u>(35,127,020)</u>	<u>(29,902,533)</u>
Non-operating revenues (expenses):		
Three-mill tax	16,043,825	14,139,193
Six-mill tax	16,215,799	14,290,667
Nine-mill tax	23,762,398	21,421,102
Two-mill tax	7,526	4,960
Other taxes	564,050	581,395
Federal noncapital grants	24,738	2,405
Interest income	4,667,470	2,511,046
Bond issuance costs	-	(1,510,657)
Interest expense	(32,471)	(53,518)
	<u>61,253,335</u>	<u>51,386,593</u>
Total non-operating revenues		
Income before capital contributions	26,126,315	21,484,060
Capital contributions	<u>119,607,318</u>	<u>131,899,206</u>
Change in net position	145,733,633	153,383,266
Net position, beginning of year	<u>2,082,688,315</u>	<u>1,929,305,049</u>
Net position, end of year	<u>\$ 2,228,421,948</u>	<u>\$ 2,082,688,315</u>

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, 2016 and 2015**

	<u>2016</u>	<u>2015</u>
Cash flows from operating activities		
Cash received from customers	\$ 177,348,307	\$ 169,633,900
Cash payments to suppliers for goods and services	(74,377,935)	(55,136,121)
Cash payments to employees for services	(76,371,844)	(89,256,648)
Other revenue	6,429,300	7,887,156
	<u>33,027,828</u>	<u>33,128,287</u>
Cash flows from noncapital financing activities		
Proceeds from property taxes	54,774,604	50,523,996
Proceeds from federal noncapital grants	24,738	2,405
	<u>54,799,342</u>	<u>50,526,401</u>
Cash flows from capital and related financing activities		
Acquisition and construction of capital assets	(121,191,935)	(119,361,237)
Principal payments and refundings of bonds payable	(14,474,448)	(12,906,475)
Proceeds from bonds payable	-	225,512,532
Payments for bond issuance costs	-	(1,510,657)
Principal payments on Debt Service Assistance Fund loan	(4,422,414)	(4,225,892)
Interest paid on bonds payable	(26,982,130)	(18,853,374)
Payments to construction fund	(3,632,953)	(3,803,850)
Proceeds from construction fund	2,759	9,662
Capital contributed by developers and federal grants	28,169,723	39,068,314
	<u>(142,531,398)</u>	<u>103,929,023</u>
Cash flows from investing activities		
Investment income	6,602,284	3,063,263
	<u>6,602,284</u>	<u>3,063,263</u>
Net (decrease) increase in cash	(48,101,944)	190,646,974
Cash at the beginning of the year	386,811,162	196,164,188
Cash at the end of the year	<u>\$ 338,709,218</u>	<u>\$ 386,811,162</u>
Reconciliation of cash, designated cash, and restricted cash (Note 2)		
Current assets - cash	\$ 43,595,508	\$ 24,689,703
Designated assets - cash	77,993,851	80,975,778
Restricted assets - cash	217,119,859	281,145,681
Total cash	<u>\$ 338,709,218</u>	<u>\$ 386,811,162</u>

(Continued)

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**STATEMENTS OF CASH FLOWS**  
**ENTERPRISE FUND**  
**For the years ended December 31, 2016 and 2015**  
**(Continued)**

	<b>2016</b>	<b>2015</b>
Reconciliation of operating loss to net cash provided by operating activities is as follows:		
Operating loss	\$ (35,127,020)	\$ (29,902,533)
Adjustments to reconcile net operating loss to net cash provided by operating activities:		
Depreciation	52,060,674	51,661,651
Provision for claims	6,450,805	2,435,209
Provision for doubtful accounts	3,413,404	2,466,131
Change in operating assets and liabilities:		
Increase in customer receivables	(11,440,708)	(4,482,440)
Decrease in inventory	547,550	163,356
(Increase) decrease in prepaid expenses and other receivables	2,473,773	(1,490,217)
Increase in deferred outflows of resources related to net pension liability	2,175,492	(15,286,024)
Increase in net pension obligation	3,782,094	17,279,512
Increase in accounts payable	4,194,015	5,337,677
Increase (decrease) in accrued salaries, due to pension and accrued vacation and sick pay	608,612	(1,268,497)
Increase in customer deposits	594,769	476,849
Increase in net other postretirement benefits liability	6,001,325	6,370,271
Decrease in other liabilities	(2,178,492)	(2,082,234)
Increase (decrease) in deferred outflows of resources related to net pension liability	(528,465)	1,449,576
Net cash provided by operating activities	\$ 33,027,828	\$ 33,128,287
Schedule of non-cash capital and related financing activities		
Contributions of capital assets	\$ 91,437,595	\$ 92,830,892
Additions of property, plant and equipment in accounts payable	\$ 18,657,727	\$ 21,771,681

See accompanying notes to financial statements.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**STATEMENTS OF FIDUCIARY NET POSITION**  
**PENSION TRUST FUND**  
**December 31, 2016 and 2015**

	2016	2015
Assets:		
Cash	\$ 40,495	\$ 317,096
Receivables:		
Investment income	77,982	75,514
Employee contributions receivable	33,751	29,822
Due from other fund	-	927,833
Investments:		
Money market	1,715,931	808,697
LAMP	13,779,922	13,160,048
Debt securities	79,742,033	76,945,620
Hedge funds	20,487,315	21,009,019
Equities	108,525,255	109,153,878
Total assets	224,402,684	222,427,527
Liabilities:		
Due to other fund	46,423	-
Total Liabilities	46,423	-
Net position - restricted for pension benefits	\$ 224,356,261	\$ 222,427,527

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, 2016 and 2015**

	<b>2016</b>	<b>2015</b>
<b>Additions:</b>		
<b>Contributions:</b>		
Employee contributions	\$ 2,064,387	\$ 1,905,689
Employer contributions	6,407,201	6,506,652
City annuity and other transfers in	1,629,756	1,847,259
Total contributions	10,101,344	10,259,600
<b>Investment income:</b>		
Interest income	252,515	215,889
Dividend income	1,321,127	1,659,812
Net appreciation (depreciation)	11,840,116	(5,013,057)
	13,413,758	(3,137,356)
Less: investment expense	844,154	1,006,785
Net investment income (loss)	12,569,604	(4,144,141)
Total additions	22,670,948	6,115,459
<b>Deductions:</b>		
Benefits	(15,757,292)	(15,281,673)
Employee refunds	(421,087)	(351,266)
Employee contributions to DROP	(4,563,835)	(4,611,664)
Total deductions	(20,742,214)	(20,244,603)
Change in net position	1,928,734	(14,129,144)
Net position restricted for pension benefits at beginning of year	222,427,527	236,556,671
Net position restricted for pension benefits at end of year	\$ 224,356,261	\$ 222,427,527

See accompanying notes to financial statements.



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**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

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.

Effective January 1, 2014, the Board's makeup was changed to eleven members, including the Mayor of the City as the President of the Board, two members of the Board of Liquidation, City Debt, and eight citizens, as designated by State statutes. The terms of office are staggered from one year to four years, as designated by State statutes.

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. 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)

(A) 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:

- (a) 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.
- (b) Budget Approval. The Board is solely responsible for reviewing, approving, and revising its budget.
- (c) 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.
- (d) Designation of Management. The Board controls the hiring of management and employees.
- (e) Special Financial Relationship. The Board has no special financial relationships with any other governmental unit.
- (f) 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*. 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. 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)

(B) 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.

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)

(C) 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.

(D) Investments

Investments are reported at fair value, except for short-term investments (maturity of one year or less), which are reported at amortized cost, which approximates fair value. Securities traded in a national or international exchange are valued at the last reported sales price at current exchange rates. Investments that do not have an established market are reported 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.

(E) Inventory of Supplies

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

(F) 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, 2016 and 2015 is approximately \$13,894,262 and \$13,549,000, respectively. The amount included in the statements of net position as of December 31, 2016 and 2015 is \$9,822,495 and \$9,500,827, respectively, which represents the annual leave and the converted sick leave since virtually all employees convert their sick leave to cash. Therefore, the Board books the compensated absences as a current 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.

Year	Beginning of Year Liability	Current Year Earned and Changes in Estimate	Payments	End of Year Liability
2016	\$ 9,500,827	\$ 3,744,057	\$ (3,422,389)	\$ 9,822,495
2015	\$ 9,202,614	\$ 3,647,221	\$ (3,349,008)	\$ 9,500,827

(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 estimated fair 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.

## SEWERAGE AND WATER BOARD OF NEW ORLEANS

### NOTES TO FINANCIAL STATEMENTS

(Continued)

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(1) Summary of Significant Accounting Policies (continued)

(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 reported 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.

(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 will not be recognized as an outflow of resources (expense) until then. Deferred inflows of resources represent an acquisition of net position that applies to future periods and will not be recognized as an inflow of resources (revenue) until that time. The deferred charge on refunding reported 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. See Note 3 for the components of deferred outflows and inflows of resources related to the pension plans.

(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.



# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## NOTES TO FINANCIAL STATEMENTS (Continued)

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(1) Summary of Significant Accounting Policies (continued)

(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.

(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 reported 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 reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenue and expenditures during the period. Actual results could differ from those estimates.

(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, 2016, the Board's interest bearing deposits with banks consisted of cash and money market funds totaling \$296,814,483 and certificates of deposit of \$273,486. At December 31, 2015, the Board's interest bearing deposits with banks consisted of cash and money market funds totaling \$345,570,241 and certificates of deposit of \$273,347. The Board's cash bank balances and all certificates of deposit for 2016 and 2015 were covered by federal depository insurance or collateral held by custodial agents of the financial institutions in the name of the Board.

In accordance with GASB 40, unless there is information to the contrary, obligations of the U.S. Government are not considered to have credit risk and do not require disclosure of credit quality.

**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:

<u>2016</u>	<u>Unrestricted</u>	<u>Restricted</u>	<u>Total</u>
Enterprise Fund:			
Cash and money market funds	\$ 121,315,874	\$ 217,119,859	\$ 338,435,733
Certificates of deposit	273,485	-	273,485
	<u>121,589,359</u>	<u>217,119,859</u>	<u>338,709,218</u>
Investments - LAMP	3,250,000	2,641,724	5,891,724
Total cash and investments at fair value	<u>\$ 124,839,359</u>	<u>\$ 219,761,583</u>	<u>\$ 344,600,942</u>

<u>2015</u>	<u>Unrestricted</u>	<u>Restricted</u>	<u>Total</u>
Enterprise Fund:			
Cash and money market funds	\$ 105,392,134	\$ 281,145,681	\$ 386,537,815
Certificates of deposit	273,347	-	273,347
	<u>105,665,481</u>	<u>281,145,681</u>	<u>386,811,162</u>
Investments - LAMP	3,250,000	2,641,724	5,891,724
Total cash and investments at fair value	<u>\$ 108,915,481</u>	<u>\$ 283,787,405</u>	<u>\$ 392,702,886</u>

(A) Fair Value Measurement

To the extent available, the Board's investments are recorded at fair value as of December 31, 2016. 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 Fund's invests along with the Fair value hierarchy levels of each type of investment is as follows:

	12/31/2016	Fair Value Hierarchy		
		Quoted Prices in Active Markets (Level 1 Inputs)	Significant Other Observable Inputs (Level 2 Inputs)	Significant Unobservable Inputs (Level 3 Inputs)
Investment by Fair Value Level:				
Equities	\$ 108,525,255	\$ 108,525,255	\$ -	\$ -
Debt Securities	79,742,033	-	79,742,033	-
Hedge Funds	20,487,315	-	20,487,315	-
<b>Total Investments at Fair Value Level</b>	<b>\$ 208,754,603</b>	<b>\$ 108,525,255</b>	<b>\$ 100,229,348</b>	<b>\$ -</b>
Investment measured at the net asset value (NAV):				
Money market funds	\$ 285,016,120			
LAMP	19,671,645			
Certificate of Deposit	273,486			
<b>Total Investments at NAV</b>	<b>\$ 304,961,251</b>			
<b>Total Investments at Fair Value</b>	<b>\$ 513,715,854</b>			

*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, 2016 is as follows:

	<u>Enterprise</u>	<u>Pension</u>	<u>Total</u>
Money market	\$ 283,300,189	\$ 1,715,931	\$ 285,016,120
LAMP	5,891,723	13,779,922	19,671,645
Certificate of Deposit	273,486	-	273,486
Other investments	-	208,754,603	208,754,603
	<u>\$ 289,465,398</u>	<u>\$ 224,250,456</u>	<u>\$ 513,715,854</u>

## 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)

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.

LAMP is a 2a7-like investment pool. The following facts are relevant for 2a7 like 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.
- 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 75 as of December 31, 2016.
- Foreign currency risk: Not applicable to 2a7-like pools.

The investments in LAMP are stated at fair value based on quoted market rates. 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.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**NOTES TO FINANCIAL STATEMENTS**  
**(Continued)**

(2) Cash and Investments (continued)

(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.

Following are the credit risk ratings of the Pension Trust Fund's investments in debt securities as of December 31, 2016:

Rating	Corporate Bonds	Foreign Government Bonds	Government Bonds and U.S. Treasury Notes	Other	Total	Percentage of Total
AAA	\$ -	\$ -	\$ 19,919,181	\$ 14,311,575	\$ 34,230,756	42.87%
AA+	130,821	-	-	69,908	200,729	0.25%
AA	92,738	-	-	369,843	462,581	0.58%
AA-	337,259	-	-	705,390	1,042,649	1.31%
A+	1,265,653	-	-	195,724	1,461,377	1.83%
A	3,533,573	19,760	-	714,178	4,267,511	5.34%
A-	5,764,628	38,222	-	188,514	5,991,364	7.50%
BBB+	3,395,461	-	-	2,565,903	5,961,364	7.47%
BBB	4,771,163	148,644	-	100,235	5,020,042	6.29%
BBB-	5,582,274	295,503	-	701,179	6,578,956	8.24%
BB+	1,674,724	50,710	-	96,877	1,822,311	2.28%
BB	766,273	267,656	-	1,186,890	2,220,819	2.78%
BB-	1,101,823	173,585	-	144,094	1,419,502	1.78%
B+	924,767	144,147	-	25,560	1,094,474	1.37%
B	440,465	208,459	-	210,459	859,383	1.08%
B-	518,269	170,795	-	142,123	831,187	1.04%
CCC+	194,437	-	-	9,362	203,799	0.26%
CCC	-	-	-	-	-	0.00%
CCC-	65,223	36,914	-	60,958	163,095	0.20%
CC	11,845	-	-	20,397	32,242	0.04%
C	18,603	-	-	39	18,642	0.02%
D	-	-	-	-	-	0.00%
Not Rated	141,961	51,133	1,612,948	4,154,206	5,960,248	7.46%
Total	\$ 30,731,960	\$ 1,605,528	\$ 21,532,129	\$ 25,973,414	\$ 79,843,031	100%

**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, 2015:

Rating	Corporate Bonds	Foreign Government Bonds	Government Bonds and U.S. Treasury Notes	Other	Total	Percentage of Total
AAA	\$ -	\$ -	\$ 10,260,998	\$ 3,015,226	\$ 13,276,224	17.25%
AA+	599,968	-	-	30,768	630,736	0.82%
AA	92,303	-	-	169,222	261,525	0.34%
AA-	476,898	153,838	469,206	38,460	1,138,402	1.48%
A+	1,684,527	7,692	-	292,292	1,984,511	2.58%
A	6,191,982	61,535	7,692	1,061,483	7,322,692	9.52%
A-	6,038,144	38,460	1,038,407	192,298	7,307,309	9.50%
BBB+	4,138,244	1,146,094	207,681	46,151	5,538,170	7.20%
BBB	5,922,765	123,070	7,692	107,687	6,161,214	8.01%
BBB-	6,038,144	730,731	-	699,963	7,468,838	9.71%
BB+	1,384,542	1,030,715	-	30,768	2,446,025	3.18%
BB	1,007,639	7,692	-	192,298	1,207,629	1.57%
BB-	1,223,013	246,141	-	176,914	1,646,068	2.14%
B+	1,330,699	46,151	-	30,768	1,407,618	1.83%
B	469,206	84,611	-	146,146	699,963	0.91%
B-	646,120	76,919	-	46,151	769,190	1.00%
CCC+	338,444	-	-	7,692	346,136	0.45%
CCC	76,919	153,838	-	107,687	338,444	0.44%
CCC-	-	-	-	23,076	23,076	0.03%
CC	84,611	-	-	7,692	92,303	0.12%
C	7,692	-	-	15,384	23,076	0.03%
D	-	-	-	46,151	46,151	0.06%
Not Rated	76,919	207,681	-	16,525,720	16,810,320	21.85%
Total	\$ 37,828,779	\$ 4,115,168	\$ 11,991,676	\$ 23,009,997	\$ 76,945,620	100%

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.

**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, 2016, 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	\$ 3,179,391	\$ 13,226,936	\$ 11,182,301	\$ 3,016,635	\$ 126,698	\$ 30,731,961
Foreign Government Bonds	127,300	564,103	609,634	304,492	-	1,605,529
Government Bonds and U.S. Treasury Notes	-	10,474,838	6,605,338	4,350,953	-	21,431,129
Other	3,495,397	11,454,351	9,620,717	1,307,733	95,216	25,973,414
<b>Total</b>	<b>\$ 6,802,088</b>	<b>\$ 35,720,228</b>	<b>\$ 28,017,990</b>	<b>\$ 8,979,813</b>	<b>\$ 221,914</b>	<b>\$ 79,742,033</b>

As of December 31, 2015, 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	\$ 3,443,434	\$ 16,922,571	\$ 13,428,447	\$ 3,898,641	\$ 135,686	\$ 37,828,779
Foreign Government Bonds	311,907	1,584,301	1,280,933	938,027	-	4,115,168
Government Bonds and U.S. Treasury Notes	17,999	5,478,173	2,639,707	3,855,797	-	11,991,676
Other	4,283,928	14,594,309	4,011,097	11,999	108,664	23,009,997
<b>Total</b>	<b>\$ 8,057,268</b>	<b>\$ 38,579,354</b>	<b>\$ 21,360,184</b>	<b>\$ 8,704,464</b>	<b>\$ 244,350</b>	<b>\$ 76,945,620</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, 2016 and 2015. The value of securities lent at December 31, 2016 and 2015 was \$41,519,835 and \$49,795,269, respectively. The market value of the cash collateral at December 31, 2016 and 2015 was \$42,465,707 and \$51,153,684, respectively.

(3) Defined Benefit Pension Plan



**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

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

**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, 2016 and 2015 was \$35,363,156 and \$33,672,902, respectively; such amounts exclude overtime and standby payroll. At December 31, the PTF membership consisted of:

	<u>2016</u>	<u>2015</u>
Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	861	841
Current employees:		
Vested	513	513
Non-vested	<u>485</u>	<u>458</u>
	<u>998</u>	<u>971</u>
 Total	 <u>1,859</u>	 <u>1,812</u>

*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 PTF. 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 ten 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.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

(3) Defined Benefit Pension Plan (continued)

**Plan Descriptions (continued)**

*Benefits Provided (continued)*

The retirement allowance for retirees over age 62 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.

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, 2016 and 2015, 121 and 123 employees, respectively, participated in the plan. The amount of plan assets segregated for these individuals was \$11,328,708 and \$11,310,510 as of December 31, 2016 and 2015, respectively.

**Funding Policy**

The actuarially determined contribution requirement for the Board was 36.175% and 37.073% for 2016 and 2015. The contribution requirement for employees for the year ended December 31, 2015 was 6.0%. The employee contribution remained at 6.0% for January 1, 2016. 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:

	<u>2016</u>		<u>2015</u>
Employer and other transfers	\$ 8,036,957	\$	8,353,911
Employee	2,064,387		1,905,689
Total contributions	\$ <u>10,101,344</u>	\$	<u>10,259,600</u>

**Net Pension Liability**

The Board's Net Pension Liability was measured as of December 31, 2016 and 2015. The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS**

**(Continued)**

**(3) Defined Benefit Pension Plan (continued)**

**Actuarial Assumptions**

The total pension liability was determined by an actuarial valuation as of December 31, 2016 and 2015, using the following actuarial assumptions:

	<u>2016</u>	<u>2015</u>
Investment rate of return	7.00%	7.00%
Inflation	2.00%	2.50%
Salary increases including inflation	5.00%	5.00%

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, 2016 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 2016 and 2015 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, 2016 and 2015, the annual money-weighted rates of return on pension plan investments, net of pension plan investment expenses, were 5.79% and -1.79%, respectively.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS**

**(Continued)**

(3) Defined Benefit Pension Plan (continued)

**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, 2016, 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%
Total pension liability	\$ 333,051,219	\$ 305,105,919	\$ 281,298,180
Fiduciary net position	224,356,261	224,356,261	224,356,261
Net pension liability	108,694,958	80,749,658	56,941,919

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

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a)-(b)
Balances at December 31, 2016	\$ 299,395,091	\$ 222,427,527	\$ 76,967,564
Changes for the year:			
Service cost	3,030,914	-	3,030,914
Interest	20,957,657	-	20,957,657
Difference between expected and actual experience	834,712	-	834,712
Changes of assumptions	-	-	-
Contributions – employer	-	6,407,201	(6,407,201)
Contributions – employee	-	2,064,387	(2,064,387)
Contributions – fines	-	-	-
Net investment income	-	12,569,601	(12,569,601)
Benefit payments, including refunds of employee contributions	(19,112,455)	(19,112,455)	-
Administrative expense	-	-	-
Other changes	-	-	-
Net changes	5,710,828	1,928,734	3,782,094
Balances at December 31, 2016	\$ 305,105,919	\$ 224,356,261	\$ 80,749,658

For the year ended December 31, 2016, the Board will recognize a Pension Expense of \$11,836,322 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)**

(3) Defined Benefit Pension Plan (continued)

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

On December 31, 2016, the Board reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 2,396,433
Net difference between projected and actual earnings on pension plan investments	16,904,538	-
<b>Total</b>	<b>\$ 16,904,538</b>	<b>\$ 2,396,433</b>

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

2017	\$ 5,108,325
2018	5,108,325
2019	4,159,823
2020	101,191
2021	(178,237)
2022	104,339
2023	104,339
	<u>\$ 14,508,105</u>

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

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

(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:

	2016			Ending Balance
	Beginning Balance	Additions	Deletions/ Reclassifications	
<b>Cost</b>				
Real estate rights, non depreciable	\$ 13,930,960	1,701	(385,384)	\$ 13,547,277
Power and pumping stations - buildings	378,753,917	678,497	-	379,432,414
Power and pumping stations - machinery	317,318,704	5,330,730	-	322,649,434
Distribution systems	252,342,832	19,706,914	(1,961,146)	270,088,600
Sewerage collection	490,556,101	30,929,165	(1,610,987)	519,874,279
Canals and subsurface drainage	622,989,487	82,516,810	-	705,506,297
Treatment plants	200,451,465	260,521	-	200,711,986
Connections and meters	98,488,474	1,779,136	(23,932)	100,243,678
Power transmission	31,409,715	408,233	-	31,817,948
General plant and buildings	282,546,927	2,381,645	(333,106)	284,595,466
Total property, plant, and equipment in service	2,688,788,582	143,993,352	(4,314,555)	2,828,467,379
Construction in progress	715,069,065	269,692,725	(143,993,352)	840,768,438
Total property, plant, and equipment	3,403,857,647	413,686,077	(148,307,907)	3,669,235,817
<b>Accumulated Depreciation</b>				
Power and pumping stations - buildings	139,335,381	6,617,813	-	145,953,194
Power and pumping stations - machinery	169,223,128	8,078,527	-	177,301,655
Distribution systems	52,226,728	3,208,521	(1,961,146)	53,474,103
Sewerage collection	55,812,167	6,914,328	(1,610,987)	61,115,508
Canals and subsurface drainage	85,985,428	7,100,851	-	93,086,279
Treatment plants	68,620,505	4,014,240	-	72,634,745
Connections and meters	36,554,319	2,001,608	(23,932)	38,531,995
Power transmission	15,683,623	635,488	-	16,319,111
General plant and buildings	253,535,163	12,925,510	(333,106)	266,127,567
Total accumulated depreciation	876,976,442	51,496,886	(3,929,171)	924,544,157
Net property, plant, and equipment	\$ 2,526,881,205	\$ 362,189,191	\$ (144,378,736)	\$ 2,744,691,660

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

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

	<b>2015</b>			
	Beginning Balance	Additions	Deletions/ Reclassifications	Ending Balance
<b>Cost</b>				
Real estate rights, non depreciable	\$ 13,575,258	\$ 355,702	\$ -	\$ 13,930,960
Power and pumping stations - buildings	368,676,632	10,077,285	-	378,753,917
Power and pumping stations - machinery	302,403,973	14,915,732	-	317,319,705
Distribution systems	227,823,078	25,802,516	(1,282,763)	252,342,831
Sewerage collection	452,858,359	39,508,551	(1,810,809)	490,556,101
Canals and subsurface drainage	551,928,776	71,060,711	-	622,989,487
Treatment plants	194,886,446	5,565,019	-	200,451,465
Connections and meters	94,138,623	4,450,609	(100,758)	98,488,474
Power transmission	28,187,555	3,222,160	-	31,409,715
General plant	268,271,605	7,280,540	(227,832)	275,324,313
General buildings	7,221,614	-	-	7,221,614
Total property, plant, and equipment in service	2,509,971,919	182,238,825	(3,422,162)	2,688,788,582
Construction in progress	639,095,470	258,212,420	(182,238,825)	715,069,065
Total property, plant, and equipment	3,149,067,389	440,451,245	(185,660,987)	3,403,857,647
<b>Accumulated Depreciation</b>				
Power and pumping stations - buildings	132,245,387	7,097,427	-	139,342,814
Power and pumping stations - machinery	161,191,489	8,031,639	-	169,223,128
Distribution systems	50,027,464	3,482,027	(1,282,763)	52,226,728
Sewerage collection	51,098,580	6,524,396	(1,810,809)	55,812,167
Canals and subsurface drainage	79,653,460	6,331,968	-	85,985,428
Treatment plants	64,611,476	4,009,029	-	68,620,505
Connections and meters	34,646,578	2,008,499	(100,758)	36,554,319
Power transmission	15,050,667	632,956	-	15,683,623
General plant	233,453,215	12,923,691	(227,832)	246,149,074
General buildings	7,089,792	288,864	-	7,378,656
Total accumulated depreciation	829,068,108	51,330,496	(3,422,162)	876,976,442
Net property, plant, and equipment	\$ 2,319,999,281	\$ 389,120,749	\$ (182,238,825)	\$ 2,526,881,205

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

(4) Property, Plant and Equipment (continued)

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

	<b>2016</b>		<b>2015</b>	
Interest income	\$	4,097,035	\$	2,192,700
Interest expense		(26,369,526)		(19,166,588)
Net interest capitalized	\$	(22,272,491)	\$	(16,973,888)

(5) Customer Receivables

Customer receivables as of December 31 consist of the following:

		<b>Customer Accounts</b>	<b>Allowance for Doubtful Accounts</b>	<b>Net</b>
2016	Water	\$ 17,554,149	\$ 4,883,220	\$ 12,670,929
	Sewer	18,182,832	4,458,867	13,723,965
		\$ 35,736,981	\$ 9,342,087	\$ 26,394,894
2015	Water	\$ 13,999,474	\$ 4,089,042	\$ 9,910,432
	Sewer	12,067,540	3,610,382	8,457,158
		\$ 26,067,014	\$ 7,699,424	\$ 18,367,590



**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

(6) Changes in Long-Term Obligations

(A) Bonds Payable

Bonds payable consisted of the following as of December 31:

	<b>Principal Balances</b>	
	<b>2016</b>	<b>2015</b>
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.	\$ 7,333,000	\$ 7,755,000
2.00% to 4.00% drainage system 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.	11,100,000	12,750,000
2.00% to 5.00% sewerage service revenue bonds (initial average interest cost 3.86%); series 2014, due in annual principal installments ranging from \$1,970,000 to \$12,970,000; final payment due June 1, 2044.	135,335,000	147,765,000
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.	103,200,000	103,525,000
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.	100,000,000	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
Plus: bond premiums	456,968,000	471,795,000
Total	42,967,158	45,763,633
Less: current maturities	499,935,158	517,558,633
Bond payable, long-term	(17,627,000)	(14,827,000)
	\$ 482,308,158	\$ 502,731,633

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**NOTES TO FINANCIAL STATEMENTS**  
**(Continued)**

(6) Changes in Long-Term Obligations (continued)

(A) Bonds Payable (continued)

The changes in long-term debt were as follows:

	<u>2016</u>	<u>2015</u>
Balance, beginning of year	\$ 471,795,000	\$ 285,054,000
Payments	(14,827,000)	(13,259,000)
Refunded	-	-
Proceeds	-	200,000,000
Balance, end of year	<u>\$ 456,968,000</u>	<u>\$ 471,795,000</u>

The annual requirements to amortize bonds payable as of December 31, 2016, are as follows:

<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2017	\$ 17,627,000	\$ 21,806,665	\$ 39,433,665
2018	17,461,000	21,004,668	38,465,668
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
2022-2026	56,898,000	83,746,804	140,644,804
2027-2031	56,884,000	71,236,951	128,120,951
2032-2036	72,006,000	56,158,694	128,164,694
2037-2041	92,045,000	36,127,500	128,172,500
2042-2045	91,875,000	10,665,000	102,540,000
	<u>\$ 456,968,000</u>	<u>\$ 358,921,328</u>	<u>\$ 815,889,328</u>

The amount of revenue bonds and tax bonds payable as of December 31, 2016, are as follows:

<u>Year</u>	<u>Revenue Bonds</u>	<u>Tax Bonds</u>	<u>Total</u>
2017	\$ 15,937,000	\$ 1,690,000	\$ 17,627,000
2018	15,716,000	1,745,000	17,461,000
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	19,453,000
2022-2026	54,898,000	2,000,000	54,898,000
2027-2031	56,884,000	-	56,884,000
2032-2036	72,006,000	-	72,006,000
2037-2041	92,045,000	-	92,045,000
2042-2045	91,875,000	-	91,875,000
	<u>\$ 445,868,000</u>	<u>\$ 11,100,000</u>	<u>\$ 456,968,000</u>

SEWERAGE AND WATER BOARD OF NEW ORLEANS

NOTES TO FINANCIAL STATEMENTS

(Continued)

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(6) Changes in Long-Term Obligations (continued)

(A) Bonds Payable (continued)

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 \$28,810,199 and \$27,791,877 at December 31, 2016 and 2015, respectively; the accumulated balance at December 31, 2016 and 2015 was \$28,810,199 and \$27,791,877 respectively. Monthly deposits to the debt service funds were temporarily suspended due to debt service payments being paid directly by the State of Louisiana through a Cooperative Endeavor Agreement and resumed as of June 2008. See note (6) (D) for additional information.
2. A debt service reserve is required for an amount equal to but not less than 50% of the amount required to be credited in said month to the debt service fund until there shall be accumulated in the debt service reserve account the largest amount required in any future calendar year to pay the principal and interest on outstanding bonds, except for the water and sewer bonds. 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. There is no debt service reserve required for the 1998 and 2002 drainage 9 mill tax 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 and \$18,407,782 at December 31, 2016 and 2015 respectively; the accumulated balance at December 31, 2016 and 2015 was \$18,407,782 and \$18,407,782, respectively.

The Board was in compliance with the requirements of its long-term debt agreements for the Water Department and Sewer Department for the years ended December 31, 2016 and 2015.

(B) Sewerage Service Subordinate 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. Annual principal payments are due beginning November 1, 2013 and 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, 2016 and 2015, \$7,333,000 and \$7,755,000 is included as bonds payable, respectively.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**NOTES TO FINANCIAL STATEMENTS**  
**(Continued)**

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(6) Changes in Long-term Obligations (continued)

(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.

(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 are to be used to finance capital improvements.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS**

**(Continued)**

(6) Changes in Long-term Obligations (continued)

(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 will be made as debt service payments become due. No principal or interest shall be 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, 2016, debt service requirements relating to the bonds are as follows:

<u>Years Ending December 31</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2017	\$ 4,627,616	\$ 2,655,525	\$ 7,283,141
2018	4,841,852	2,440,826	7,282,678
2019	5,066,514	2,216,164	7,282,678
2020	5,301,601	1,981,077	7,282,678
2021	5,547,595	1,735,083	7,282,678
2022-2026	31,845,981	4,566,948	36,412,929
	<u>\$ 57,231,159</u>	<u>\$ 15,595,623</u>	<u>\$ 72,826,782</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

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(6) Changes in Long-term Obligations (continued)

(G) 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 as of December 31, 2016 and 2015 is \$163,995,508 and \$115,703,588, respectively.

(7) 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 \$2,435,653 and \$8,739,076 at December 31, 2016 and 2015, respectively.

(8) 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.

The assessed value of the property is determined by an elected Assessor. The assessed value for 2016 and 2015 was \$3,653,953,630 and \$3,345,017,798, respectively. The combined tax rate dedicated for the Board for the years ended December 31, 2016 and 2015 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).

SEWERAGE AND WATER BOARD OF NEW ORLEANS

NOTES TO FINANCIAL STATEMENTS

(Continued)

(9) Commitments

(A) Capital Improvements

At December 31, 2016, the Board's budget for its ten year capital improvements program totaled \$2,675,017,000 including \$1,054,974,000 for water, \$684,340,000 for sewerage and \$935,703,000 for 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, 2016, the Board has committed or appropriated \$49,491,125 in investments for use in future capital projects and has \$186,283,124 of cash and cash equivalents restricted for future capital projects

The capital improvements budget for 2017 is \$369,236,000, including \$111,252,000 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, 2016 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

(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 provision for 2016 and 2015 amounted to \$4,417,197 and \$1,006,238, respectively.

Worker's compensation expense provision for 2016 and 2015 amounted to \$2,959,527 and \$1,529,476, respectively.

The hospitalization self-insurance benefits are administered by HealthSmart Benefit Solutions. The Board's expense provision in excess of employee contributions for 2016 and 2015 was \$22,055,034 and \$15,863,624, respectively, and is included in payroll related expenses.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**NOTES TO FINANCIAL STATEMENTS**  
**(Continued)**

(9) Commitments (continued)

(B) Self-insurance (continued)

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

	<u>2016</u>	<u>2015</u>
Beginning of Year	\$ 13,172,580	\$ 12,814,193
Current Year Claims and Estimate Change	29,126,683	17,688,582
Claim Payments	<u>(25,094,492)</u>	<u>(17,330,195)</u>
End of Year	<u>\$ 17,204,771</u>	<u>\$ 13,172,580</u>

The composition of claims payable is as follows:

	<u>2016</u>	<u>2015</u>
Short-term:		
Workers' compensation	\$ 1,465,740	\$ 958,860
Health insurance	2,107,501	1,867,600
General liability	<u>12,080,835</u>	<u>7,855,552</u>
Total short-term	<u>15,654,076</u>	<u>10,682,012</u>
Long-term:		
Workers' compensation	<u>1,550,695</u>	<u>2,490,568</u>
Total long-term	<u>1,550,695</u>	<u>2,490,568</u>
Total	<u>\$ 17,204,771</u>	<u>\$ 13,172,580</u>

(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 2019.



## SEWERAGE AND WATER BOARD OF NEW ORLEANS

### NOTES TO FINANCIAL STATEMENTS (Continued)

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(9) Commitments (continued)

(C) Regulatory Matters

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, 2016 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.

(D) Post-employment Healthcare 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.

The retirement eligibility (D.R.O.P. entry) provisions are as follows: 30 years of service at any age; age 62 and 10 years of service; age 65 and 5 years of service; age 70 regardless of service; or, if age plus service equals at least 80. Complete plan provisions are contained in the official plan documents. Currently, the Board provides post-employment medical benefits to 584 retired employees.

Contribution Rates - Employees do not contribute to their post-employment benefits costs until they become retirees and begin receiving those benefits. The plan provisions and contribution rates are contained in the official plan documents.

Fund Policy - Until 2007, the Board recognized the cost of providing post-employment medical benefits (the Board's portion of the retiree medical benefit premiums) as an expense when the benefit premiums were due and thus financed the cost of the post-employment benefits on a pay-as-you-go basis. In 2016 and 2015, the Board's portion of health care funding cost for retired employees totaled \$6,301,229 and \$6,603,088 respectively.

Effective January 1, 2007, the Board implemented Governmental Accounting Standards Board Statement Number 45, Accounting and Financial Reporting by Employers for Post-employment Benefits Other than Pensions (GASB 45). This amount was applied toward the Net OPEB Benefit Obligation as shown in the following tables.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

(9) Commitments (continued)

(D) Post-employment Healthcare Benefits (continued)

Annual Required Contribution - The Board's Annual Required Contribution (ARC) is an amount actuarially determined in accordance with GASB 45. The ARC is the sum of the Normal Cost plus the contribution to amortize the Unfunded Actuarial Accrued Liability (UAAL). A level dollar, open amortization period of 30 years (the maximum amortization period allowed by GASB 43/45) has been used for the post-employment benefits. The actuarially computed ARC is as follows:

	<u>2016</u>		<u>2015</u>	
Normal cost	\$	4,057,594	\$	4,342,774
30-year UAL amortization amount		9,449,908		9,721,952
Annual required contribution (ARC)	\$	<u>13,507,502</u>	\$	<u>14,064,726</u>

Net Post-employment Benefit Obligation - The table below shows the Board's Net Other Post-employment Benefit (OPEB) Obligation for fiscal years ending December 31:

	<u>2016</u>		<u>2015</u>	
Beginning Net OPEB Obligation	\$	67,579,016	\$	61,208,742
Annual required contribution		13,507,502		14,046,726
Interest on net OPEB obligation		2,703,161		2,448,350
ARC adjustment		<u>(3,908,109)</u>		<u>(3,521,714)</u>
OPEB cost		12,302,554		12,973,362
Contribution		-		-
Current year retiree premium		<u>(6,301,229)</u>		<u>(6,603,088)</u>
Change in net OPEB obligation		<u>6,001,325</u>		<u>6,370,274</u>
Ending net OPEB obligation	\$	<u>73,580,341</u>	\$	<u>67,579,016</u>

The following table shows the Board's annual other post-employment benefits cost, percentage of the cost contributed, and the net unfunded post-employment benefits liability:

<u>Fiscal Year Ended</u>	<u>Annual OPEB Cost</u>	<u>Percentage of Annual Cost Contributed</u>	<u>Net OPEB Liability (Asset)</u>
December 31, 2016	\$ 12,302,554	51.22%	\$73,580,341
December 31, 2015	\$ 12,973,362	50.90%	\$ 67,579,016
December 31, 2014	\$ 13,398,088	52.75%	\$ 61,208,745

Funded Status and Funding Progress - In 2016 and 2015, the Board made no contributions to its post-employment benefits plan. The plan is not funded, has no assets, and hence has a funded ratio of zero. Based on the January 1, 2016 actuarial valuation, the most recent actuarial valuation, the Actuarial Accrued Liability (AAL) at the end of the year December 31, 2016 was \$163,407,162 which is defined as that portion, as determined by a particular actuarial cost method (the Board uses the Unit Credit Cost Method), of the actuarial present value of post-employment plan benefits and expenses which is not provided by normal cost.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

(9) Commitments (continued)

(D) Post-employment Healthcare Benefits (continued)

The required schedule of funding progress following the notes to the financial statements presents multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits. Additional information for the actuarial valuation is as follows:

	<b>2016</b>		<b>2015</b>
Actuarial Accrued Liability (AAL)	\$ 163,407,162	\$	168,111,644
Actuarial Value of Plan Assets (AVP)	-		-
Unfunded Act. Accrued Liability (UAAL)	\$ 163,407,162	\$	168,111,644
Funded Ratio (AVP/AAL)	0.00%		0.00%
Covered Payroll (active plan members)	\$ 37,607,035	\$	37,973,934
UAAL as a percentage of covered payroll	434.51%		442.70%

Actuarial Methods and Assumptions - Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. The actuarial valuation for post-employment benefits includes estimates and assumptions regarding (1) turnover rate, (2) retirement rate, (3) health care cost trend rate, (4) mortality rate, (5) discount rate (investment return assumption), and (6) the period to which the costs apply (past, current, or future years of service by employees). Actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

The actuarial calculations are based on the types of benefits provided under the terms of the substantive plan (the plan as understood by the Board and its employee plan members) at the time of the valuation and on the pattern of sharing costs between the Board and its plan members to that point. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations on the pattern of cost sharing between the Board and plan members in the future. Consistent with the long-term perspective of actuarial calculations, the actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial liabilities and the actuarial value of assets.

Actuarial Cost Method - The ARC is determined using the Projected Unit Credit Cost Method. The employer portion of the cost for retiree medical care in each future year is determined by projecting the current cost levels using the healthcare cost trend rate and discounting this projected amount to the valuation date using the other described pertinent actuarial assumptions, including the investment return assumption (discount rate), mortality, and turnover.

Actuarial Value of Plan Assets – Since the OPEB obligation has not as yet been funded, there are not any plan assets. It is anticipated that in future valuations, should funding take place, plan assets will be valued using a smoothed market value method consistent with Actuarial Standards Board ASOP 6, as provided in paragraph number 125 of GASB Statement 45.

## SEWERAGE AND WATER BOARD OF NEW ORLEANS

### NOTES TO FINANCIAL STATEMENTS

(Continued)

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(9) Commitments (continued)

(D) Post-employment Healthcare Benefits (continued)

Turnover Rate - An age-related turnover scale based on actual experience has been used. The rates, when applied to the active employee census, produce a composite average annual turnover of approximately 8%. In addition to age related turnover, it has additionally been assumed that 10% of future eligible retirees will decline coverage upon retirement.

Post-employment Benefit Plan Eligibility Requirements - It is assumed that entitlement to benefits will commence five years after earliest eligibility for retirement (D.R.O.P. entry). The five years is to accommodate the anticipated period of the D.R.O.P. Also, if the initial eligibility for D.R.O.P. entry is prior to age 55, an additional one year delay has been assumed, and it has been assumed that members eligible for the "Rule of 80" retirement formula delay three years beyond that earliest retirement date. Medical benefits are provided to employees upon actual retirement. The retirement eligibility (D.R.O.P. entry) provisions are as follows: 30 years of service at any age; age 62 and 10 years of service; age 65 and five years of service; age 70 regardless of service; or, if age plus service equals at least 80. Entitlement to benefits continues through Medicare to death.

Investment Return Assumption (Discount Rate) - GASB Statement 45 states that the investment return assumption should be the estimated long-term investment yield on the investments that are expected to be used to finance the payment of benefits (that is, for a plan which is funded). Based on the assumption that the ARC will not be funded, a 4% annual investment return has been used in this valuation.

Health Care Cost Trend Rate - The expected rate of increase in medical cost is based on a graded schedule beginning with 8% annually, down to an ultimate annual rate of 5.0% for ten years out and later.

Mortality Rate - The 1994 Group Annuity Reserving (94GAR) table, projected to 2002, based on a fixed blend of 50% of the unloaded male mortality rate and 50% of the unloaded female mortality rates, was used. This is a published mortality table which was designed to be used in determining the value of accrued benefits in defined benefit pension plans.

Method of Determining the Value of Benefits - The "value of benefits" has been assumed to be the portion of the premium after retirement date expected to be paid by the employer for each retiree and has been used as the basis for calculating the actuarial present value of OPEB benefits to be paid. The current premium schedules for active and retired are "unblended" rates, as required by GASB 45.

Inflation Rate - Included in both the Investment Return Assumption and the Healthcare Cost Trend rates above is an implicit inflation assumption of 2.50% annually.

Projected Salary Increases - This assumption is not applicable since neither the benefit structure nor the valuation methodology involves salary.

## SEWERAGE AND WATER BOARD OF NEW ORLEANS

### NOTES TO FINANCIAL STATEMENTS

(Continued)

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(9) Commitments (continued)

(D) Post-employment Healthcare Benefits (continued)

Post-retirement Benefit Increases – The plan benefit provisions in effect for retirees as of the valuation date have been used and it has been assumed for valuation purposes that there will not be any changes in the future.

(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) 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, 2016, 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 2016, the City Council of the City of New Orleans approved tax abatement projects with a total investment value of \$8,999,940 of which \$928,071 was for the Board.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS**

**(Continued)**

**(13) 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.

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

	<u>Condensed Statements of Net Position</u>			
	<u>Water</u>		<u>Sewer</u>	
	<u>2016</u>	<u>2015</u>	<u>2016</u>	<u>2015</u>
	(amounts in thousands)			
<b>Assets:</b>				
Current unrestricted assets	\$ 62,996	\$ 62,809	\$ 114,193	\$ 80,654
Restricted assets	119,807	140,980	92,317	137,611
Other assets	11,796	11,202	18	18
Property, plant and equipment	470,490	430,525	980,279	948,550
Total assets	<u>665,089</u>	<u>645,516</u>	<u>1,186,807</u>	<u>1,166,833</u>
Deferred outflows of resources:	5,659	6,388	8,977	9,997
Total assets and deferred outflows	<u>\$ 670,748</u>	<u>\$ 651,904</u>	<u>\$ 1,195,784</u>	<u>\$ 1,176,830</u>
<b>Liabilities:</b>				
Current	\$ 39,251	\$ 40,229	\$ 37,669	\$ 32,053
Current liabilities payable from restricted assets	3,247	1,096	15,675	15,109
Noncurrent liabilities	290,341	290,812	349,540	365,573
Total liabilities	<u>332,839</u>	<u>332,137</u>	<u>402,884</u>	<u>412,735</u>
Deferred inflows of resources:	<u>799</u>	<u>975</u>	<u>799</u>	<u>975</u>
<b>Net position:</b>				
Net investment in capital assets	350,742	207,049	775,028	667,599
Restricted	119,087	140,372	91,619	136,985
Unrestricted	<u>(132,719)</u>	<u>(28,629)</u>	<u>(74,546)</u>	<u>(41,464)</u>
Total net position	<u>337,110</u>	<u>318,792</u>	<u>792,101</u>	<u>763,120</u>
Total liabilities, deferred inflows, and net position	<u>\$ 670,748</u>	<u>\$ 651,904</u>	<u>\$ 1,195,784</u>	<u>\$ 1,176,830</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**NOTES TO FINANCIAL STATEMENTS**  
**(Continued)**

(13) Segment Information (continued)

Condensed Statements of Revenues, Expenses and Changes in Net Position

	Water		Sewer	
	2016	2015	2016	2015
	(amounts in thousands)			
Service charges, pledged against bonds	\$ 85,986	\$ 81,729	\$ 105,620	\$ 96,503
Depreciation expense	(10,178)	(10,415)	(20,862)	(20,813)
Other operating expenses	(79,300)	(74,438)	(61,504)	(53,468)
Operating income (loss)	(3,492)	(3,124)	23,254	22,222
Nonoperating revenues (expenses):				
Investment earnings	2,105	967	2,309	1,342
Bond issuance costs	-	(403)	-	(1,107)
Other	275	261	312	322
Interest expense	-	-	-	-
Total nonoperating revenues (expenses)	2,380	825	2,621	557
Capital contributions	19,430	16,516	3,106	20,904
Change in net position	18,318	14,217	28,981	43,683
Beginning net position	318,792	304,575	763,120	719,437
Ending net position	\$ 337,110	\$ 318,792	\$ 792,101	\$ 763,120

Condensed Statements of Cash Flows

	Water		Sewer	
	2016	2015	2016	2015
	(amounts in thousands)			
Net cash provided by (used in):				
Operating activities	\$ 19,009	\$ 1,214	\$ 38,310	\$ 55,695
Noncapital financing activities	276	261	313	323
Capital and related financing activities	(44,284)	75,535	(64,358)	45,495
Investing activities	2,957	1,394	2,757	(2,043)
Net increase	(22,042)	78,404	(22,978)	99,470
Cash and cash equivalents:				
Beginning of year	174,375	95,971	177,805	78,335
End of year	\$ 152,333	\$ 174,375	\$ 154,827	\$ 177,805

## SEWERAGE AND WATER BOARD OF NEW ORLEANS

### NOTES TO FINANCIAL STATEMENTS

(Continued)

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(14) Natural Disaster

During the years ended, December 31, 2016 and 2015, the Board has cumulatively received approximately \$361.1 million and \$349.9 million, respectively, of cash reimbursements from the Federal Emergency Management Agency (FEMA). Included in accounts receivable as of December 31, 2016 and 2015 are \$11,098,232 and \$19,654,795, respectively, of reimbursements due from FEMA under the Disaster Grants program. Eligible FEMA grants totaling in excess of \$803.8 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, 2016 and 2015, the Board had an outstanding obligation under the agreement of \$11,098,232 and \$14,094,172 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.

(15) Change in Accounting Principles

The Board has implemented GASB Statement No. 72, Fair Value Measurement and Application, in 2016. This Statement required investments to be measured at fair value at Note 2(A).

(16) New Pronouncements

In June 2015, the Governmental Accounting Standards Board issued GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, which establishes improved financial reporting primarily through enhanced note disclosures and schedules of required supplementary information for OPEB plans. The new information will enhance the decision-usefulness of the financial reports for OPEB plans, the value for assessing accountability, and their transparency by providing information about measure of net OPEB liabilities and explanations of how and why those liabilities changed from year to year. The Board will implement GASB 74 on the financial statements for the year ended December 31, 2017.



**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**NOTES TO FINANCIAL STATEMENTS  
(Continued)**

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(17) Subsequent Event

Management has evaluated subsequent events through the date that the financial statements were available to be issued, June 27, 2017, and determined that no events occurred that require additional disclosure. No events occurring after this date have been evaluated for inclusion in these financial statements.

**REQUIRED SUPPLEMENTARY INFORMATION  
(GASB STATEMENTS NO. 67, NO. 68, NO.71, AND NO.45)**

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**Required Supplementary Information Under GASB Statement No. 67, 68, and 71**  
**For the years ended December 31, 2016 and 2015**

**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 (millions)	Net Pension Liability as a Percentage of Payroll
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%

**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
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%
2008	7,146,527	5,104,789	2,041,738	29,466,571	17.32%
2007	4,598,587	4,169,892	428,695	26,544,603	15.71%

**Note to schedule:** Method and assumptions used in calculations of actuarially determined contributions. The actuarially determined contribution rates in the schedule of employer contributions are calculated as of December 31, 2016 and 2015. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule.

Actuarial cost method	Entry age normal
Amortization method	Level dollar
Remaining amortization period	10 years
Asset valuation method	7-year weighted market average
Inflation	2.0% for the years ended December 31, 2016 and 2015
Salary increases	5.0%, average, including inflation
Investment rate of return	7.0%, net of pension plan investment expense, including inflation

**SCHEDULE OF INVESTMENT RETURNS**

Year Ended	Net Money-Weighted Rate of Return
2016	5.79%
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, 2016 and 2015**  
(continued)

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY**

	<u>2016</u>	<u>2015</u>	<u>2014</u>
<b>Total Pension Liability</b>			
Service cost	\$ 3,030,912	\$ 2,788,621	\$ 3,417,599
Interest on total pension liability	20,957,657	20,737,131	20,364,364
Effect of plan changes	-	-	-
Effect of economic/demographic gains or (losses)	834,712	(1,978,038)	(1,721,210)
Effect of assumption changes or inputs	-	-	-
Benefit payments	(19,112,455)	(18,397,344)	(16,735,511)
<b>Net change in total pension liability</b>	<u>5,710,826</u>	<u>3,150,370</u>	<u>5,325,242</u>
<b>Total pension liability, beginning</b>	<u>299,395,093</u>	<u>296,244,723</u>	<u>290,919,481</u>
<b>Total pension liability, ending (a)</b>	<u>305,105,919</u>	<u>299,395,093</u>	<u>296,244,723</u>
<b>Plan Fiduciary Net Position</b>			
Employer contributions	6,407,201	6,506,652	6,055,890
Employee contributions	2,063,122	1,847,259	1,535,723
Investment income net of investment expenses	12,570,866	(4,085,711)	11,342,004
Benefit payments	(19,112,455)	(18,397,344)	(16,735,511)
Administrative expenses	-	-	-
<b>Net change in plan fiduciary net position</b>	<u>1,928,734</u>	<u>(14,129,144)</u>	<u>2,198,106</u>
<b>Plan fiduciary net position, beginning</b>	<u>222,427,527</u>	<u>236,556,671</u>	<u>234,358,565</u>
<b>Plan fiduciary net position, ending (b)</b>	<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>\$ 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>	73.53%	74.29%	79.85%
<b>Covered payroll</b>	\$ 35,363,156	\$ 33,672,902	\$ 31,378,001
<b>Board's net pension liability as a % of covered payroll</b>	228.34%	228.57%	190.22%

**Notes to Schedules:** The schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

*Factors that significantly affect trends in amounts reported.* For the periods presented, there were no changes of benefit terms, changes in the size or composition of the population covered by the benefit terms, or changes of assumptions which significantly affect trends in the amounts reported.

See accompanying notes to financial statements.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**Required Supplementary Information Under GASB Statement No. 45**  
**SCHEDULE OF FUNDING PROGRESS**  
**Last Eight Years**

Actuarial Valuation Date December 31	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	(Overfunded) Unfunded AAL	Funded Ratio	Covered Payroll (millions)	Unfunded AAL as a Percentage of payroll
2016	\$ -	\$ 163,407,162	\$ 163,407,162	0.00%	37.61	434.48%
2015	-	168,111,644	168,111,644	0.00%	33.67	499.29%
2014	-	174,861,486	174,861,486	0.00%	36.10	484.38%
2013	-	172,246,761	172,246,761	0.00%	35.44	486.02%
2012	-	176,321,034	176,321,034	0.00%	35.11	502.25%
2011	-	178,681,549	178,681,549	0.00%	35.08	509.33%
2010	-	178,904,131	178,904,131	0.00%	34.74	514.92%
2009	-	184,174,734	184,174,734	0.00%	33.88	543.56%

**SCHEDULE OF EMPLOYER CONTRIBUTIONS**

Year Ended	Annual Required Contribution	Actual Contribution	Percentage Contribution
2016	\$ 13,507,502	\$ 6,301,229	46.65%
2015	14,064,726	6,603,088	46.95%
2014	14,474,798	7,067,777	48.83%
2013	14,206,678	6,643,309	46.76%
2012	14,430,043	6,070,360	42.07%
2011	14,659,445	6,057,637	41.32%
2010	14,759,470	5,728,065	38.81%
2009	15,046,112	5,487,971	36.47%

See accompanying notes to financial statements.

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**SUPPLEMENTARY INFORMATION**

SEWERAGE AND WATER BOARD OF NEW ORLEANS  
 SCHEDULE OF NET POSITION BY DEPARTMENT  
 ENTERPRISE FUND  
 As of December 31, 2016 and 2015

	Water System		Sewerage System		Drainage System		Total	
	2016	2015	2016	2015	2016	2015	2016	2015
<b>ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</b>								
<b>Current assets:</b>								
Unrestricted and undesignated								
Cash and cash equivalents	\$ 17,576,424	\$ 6,369,024	\$ 21,897,392	\$ 7,701,581	\$ 4,121,692	\$ 10,619,098	\$ 43,595,508	\$ 24,689,703
Accounts receivable:								
Customers, net of allowance	12,670,929	9,910,432	13,723,965	8,457,158	9,863,262	8,044,268	26,394,894	18,367,590
Taxes	30,922,836	22,243,714	24,082,550	25,006,062	8,574,100	5,538,652	9,863,262	8,044,268
Grants	460,706	1,189,192	238,704	1,024,643	1,004,167	1,202,160	63,578,486	52,808,428
Miscellaneous	(11,228,350)	(2,761,777)	12,284,673	4,257,844	(1,056,323)	(1,496,067)	1,703,577	3,415,995
Due from (to) other internal departments	3,196,552	3,536,187	1,065,180	1,173,098	494,463	594,460	4,756,195	5,303,745
Inventory of supplies	386,282	640,067	231,700	485,485	(172)	253,613	617,810	1,379,165
Prepaid expenses	53,985,379	41,126,839	73,524,164	48,105,871	23,000,189	24,776,184	150,509,732	114,008,894
Total unrestricted and undesignated	7,387,079	19,951,071	39,518,505	31,329,687	18,672,564	17,645,578	65,578,148	68,926,336
Designated cash, cash equivalents, and investments	1,623,874	1,731,555	1,150,704	1,218,569	1,117,652	1,170,614	3,892,230	4,120,738
Cash and cash equivalents designated for capital projects	9,010,953	21,682,626	40,669,209	32,548,256	19,790,216	18,816,192	69,470,378	73,047,074
Other	62,996,332	62,809,465	114,193,373	80,654,127	42,790,405	43,592,376	219,980,110	187,035,968
Total current assets	102,336,574	124,024,155	61,225,105	107,234,413	6,874,422	4,461,677	170,436,101	235,720,245
Restricted cash, cash equivalents, and investments	719,890	607,786	697,842	626,442	689,769	633,273	2,107,501	1,867,501
Cash and cash equivalents restricted for capital projects	16,750,155	16,347,779	30,393,522	29,750,047	74,304	101,833	47,217,981	46,199,659
Health insurance reserve	119,806,619	140,979,720	92,316,469	137,610,902	7,638,495	5,196,783	219,761,583	283,787,405
Debt service reserve	808,301,167	760,684,249	1,244,624,751	1,193,915,014	1,616,309,899	1,449,258,384	3,669,235,817	3,403,857,647
Total restricted cash, cash equivalents, and investment	337,811,191	330,138,757	264,345,441	245,365,176	322,387,525	301,452,509	924,544,157	876,976,442
Property, plant and equipment	470,489,976	430,525,492	980,279,310	948,549,838	1,293,922,374	1,147,805,875	2,744,691,660	2,526,881,205
Less: accumulated depreciation	11,773,473	11,178,704	17,965	17,965	10,400	10,400	11,773,473	11,178,704
Property, plant, and equipment, net	22,950	22,950	17,965	17,965	10,400	10,400	51,315	51,315
Other assets	11,796,423	11,201,654	17,965	17,965	10,400	10,400	11,824,788	11,230,019
Designated cash for customer deposits	602,093,018	582,706,866	1,072,613,744	1,086,178,705	1,301,571,269	1,153,013,058	2,976,278,031	2,821,898,629
Deposits	665,089,350	645,516,331	1,186,807,117	1,166,832,832	1,344,361,674	1,196,605,434	3,196,258,141	3,008,954,597
Total other assets	5,634,846	6,360,010	5,634,846	6,360,010	5,634,846	6,360,010	16,904,538	19,080,030
Total noncurrent assets	23,973	28,356	3,342,312	3,636,958	236,032	289,555	3,602,317	3,954,869
Total assets	5,658,819	6,388,366	8,977,158	9,996,968	5,870,878	6,649,565	20,506,855	23,034,899
Deferred outflows of resources:								
Deferred amounts related to net pension liability	\$ 670,748,169	\$ 651,904,697	\$ 1,195,784,275	\$ 1,176,829,800	\$ 1,350,232,552	\$ 1,203,254,999	\$ 3,216,764,996	\$ 3,031,989,496
Deferred loss on bond refunding								
Total deferred outflows of resources								
Total assets and deferred outflows of resources								

(Continued)



SEWERAGE AND WATER BOARD OF NEW ORLEANS  
SCHEDULE OF NET POSITION BY DEPARTMENT, CONTINUED  
ENTERPRISE FUND  
As of December 31, 2016 and 2015

	Water System		Sewerage System		Drainage System		Total	
	2016	2015	2016	2015	2016	2015	2016	2015
<b>LIABILITIES, DEFERRED OUTFLOWS OF RESOURCES, AND NET POSITION</b>								
Current liabilities (payable from current assets):								
Accounts payable	\$ 13,500,638	\$ 14,521,423	\$ 15,978,725	\$ 17,519,962	\$ 10,539,722	\$ 6,897,639	\$ 40,019,085	\$ 38,939,024
Due to City of New Orleans	394,882	154,760	-	-	-	-	394,882	154,760
Disaster Reimbursement Revolving Loan	5,732,171	6,984,993	4,644,925	127,225	721,136	6,981,954	11,098,232	14,094,172
Retainers and estimates payable	4,793,969	3,927,628	3,139,698	2,880,349	1,659,744	1,512,276	9,593,411	8,320,253
Due to other fund	73,244	64,777	34,309	30,335	42,659	37,820	150,212	132,932
Accrued salaries	453,745	332,322	175,077	90,115	212,039	148,760	840,861	571,197
Accrued vacation and sick pay	4,506,100	4,389,813	3,059,661	2,938,579	2,256,734	2,172,435	9,822,495	9,500,827
Claims payable	4,919,939	3,793,255	4,680,411	2,644,607	6,053,726	4,244,150	15,654,076	10,682,012
Debt Service Assistance Fund loan payable	406,727	388,691	3,961,768	3,786,093	259,121	247,630	4,627,616	4,422,414
Advances from federal government	4,393,604	5,585,228	1,976,305	1,976,305	-	-	6,369,909	7,561,533
Other liabilities	75,533	85,858	18,367	59,824	12,488	8,109	106,388	153,791
<b>Total Current liabilities (payable from current assets):</b>	<b>39,250,552</b>	<b>40,228,748</b>	<b>37,669,246</b>	<b>32,053,394</b>	<b>21,757,369</b>	<b>22,250,773</b>	<b>98,677,167</b>	<b>94,532,915</b>
Current liabilities (payable from restricted assets):								
Accrued interest	536,974	743,300	1,603,135	1,918,832	95,989	106,696	2,236,098	2,768,828
Bonds payable	2,540,000	325,000	13,397,000	12,852,000	1,690,000	1,650,000	17,627,000	14,827,000
Retainers and estimates payable	170,109	27,830	675,299	337,912	-	-	845,408	365,742
<b>Total current liabilities (payable from restricted assets):</b>	<b>3,247,083</b>	<b>1,096,130</b>	<b>15,675,434</b>	<b>15,108,744</b>	<b>1,785,989</b>	<b>1,756,696</b>	<b>20,708,506</b>	<b>17,961,570</b>
<b>Total current liabilities</b>	<b>42,497,635</b>	<b>41,324,878</b>	<b>53,344,680</b>	<b>47,162,138</b>	<b>23,543,358</b>	<b>24,007,469</b>	<b>119,385,673</b>	<b>112,494,485</b>
Long-term liabilities:								
Claims payable	516,898	830,189	516,898	830,189	516,899	830,190	1,550,695	2,490,568
Net pension liability	26,916,553	25,655,855	26,916,553	25,655,855	26,916,552	25,655,854	80,749,658	76,967,564
Other postretirement benefits liability	26,967,946	24,967,504	23,989,599	21,989,157	22,622,796	20,622,355	73,580,341	67,579,016
Bonds payable, net of current maturities	219,544,431	223,151,314	253,079,459	268,098,647	9,684,268	11,481,672	482,308,158	502,731,633
Southeast Louisiana Project liability	-	-	-	-	163,995,508	115,703,588	163,995,508	115,703,588
Debt Service Assistance Fund loan payable, net of current maturities	4,622,185	5,028,912	45,037,439	48,999,207	2,943,485	3,202,606	52,603,109	57,230,725
Customer deposits	11,773,473	11,178,704	-	-	-	-	11,773,473	11,178,704
Total long-term liabilities	290,341,486	290,812,478	349,539,948	365,573,055	226,679,508	177,496,265	866,560,942	833,881,798
<b>Total liabilities</b>	<b>332,839,121</b>	<b>332,137,356</b>	<b>402,884,628</b>	<b>412,735,193</b>	<b>250,222,866</b>	<b>201,503,734</b>	<b>985,946,615</b>	<b>946,376,283</b>
Deferred inflows of resources:								
Deferred amounts related to net pension liability	798,811	974,966	798,811	974,966	798,811	974,966	2,396,433	2,924,898
<b>Total deferred inflows of resources</b>	<b>798,811</b>	<b>974,966</b>	<b>798,811</b>	<b>974,966</b>	<b>798,811</b>	<b>974,966</b>	<b>2,396,433</b>	<b>2,924,898</b>
Net position:								
Net investment in capital assets	350,742,119	207,049,178	775,027,956	667,599,191	1,289,422,528	1,134,674,203	2,415,192,603	2,009,322,572
Restricted for debt service	16,750,155	16,347,779	30,393,522	29,750,047	74,304	101,833	47,217,981	46,199,659
Restricted for capital improvements	102,336,574	124,024,155	61,225,105	107,234,413	6,874,422	4,461,677	170,436,101	235,720,245
Unrestricted	(132,718,611)	(28,628,737)	(74,545,747)	(41,464,010)	(197,160,379)	(138,461,414)	(404,424,737)	(208,554,161)
<b>Total net position</b>	<b>337,110,237</b>	<b>318,792,375</b>	<b>792,100,836</b>	<b>763,119,641</b>	<b>1,099,210,875</b>	<b>1,000,776,299</b>	<b>2,228,421,948</b>	<b>2,082,688,315</b>
<b>Total liabilities, deferred inflows of resources, and net position</b>	<b>\$ 670,748,169</b>	<b>\$ 651,904,697</b>	<b>\$ 1,195,784,275</b>	<b>\$ 1,176,829,800</b>	<b>\$ 1,350,232,552</b>	<b>\$ 1,203,254,999</b>	<b>\$ 3,216,764,996</b>	<b>\$ 3,031,989,496</b>

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, 2016 and 2015

	Water System			Sewerage System			Drainage System			Total
	2016	2015	2016	2015	2016	2015	2016	2015		
<b>Operating revenues:</b>										
Sales of water and delinquent fees	\$ 83,158,940	\$ 78,007,937	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 83,158,940	
Sewerage service charges	319,991	305,384	104,795,184	95,636,966	-	-	-	-	104,795,184	
Plumbing inspection and license fees	2,506,704	3,416,155	318,511	305,384	-	-	-	-	638,502	
Other revenues			505,847	560,157	1,065,829	4,313,845			4,078,380	
<b>Total operating revenues</b>	<b>85,985,635</b>	<b>81,729,476</b>	<b>105,619,542</b>	<b>96,502,507</b>	<b>1,065,829</b>	<b>4,313,845</b>	<b>192,671,006</b>	<b>182,545,828</b>		
<b>Operating Expenses:</b>										
Power and pumping	2,823,007	2,987,349	3,033,447	2,773,821	7,642,762	7,378,085	13,499,216	13,139,255	13,139,255	
Treatment	7,450,742	7,866,310	12,739,603	10,765,096	109,999	109,231	20,300,344	18,740,637	18,740,637	
Transmission and distribution	21,581,831	20,459,955	14,763,699	14,339,390	829,176	1,078,792	37,174,706	35,878,137	35,878,137	
Customer accounts	2,071,364	1,900,893	2,071,360	1,900,889	8,303	5,623	4,151,027	3,807,405	3,807,405	
Customer service	2,064,751	1,915,020	2,082,863	1,933,616	123,941	124,708	4,271,555	3,973,344	3,973,344	
Administration and general	6,481,119	5,525,583	6,055,452	5,566,052	5,969,536	5,756,618	18,506,107	16,848,253	16,848,253	
Payroll related	18,842,941	15,465,794	13,998,733	11,673,366	11,149,205	9,210,674	43,990,879	36,349,834	36,349,834	
Maintenance of general plant	14,379,697	16,177,610	2,722,422	2,983,385	6,877,190	7,987,510	23,979,309	27,148,505	27,148,505	
Depreciation	10,177,757	10,414,611	20,861,655	20,813,183	21,021,262	20,433,857	52,060,674	51,661,651	51,661,651	
Provision for doubtful accounts	1,757,867	1,327,189	1,655,537	1,138,942	-	-	3,413,404	2,466,131	2,466,131	
Provision for claims	1,847,021	813,979	2,380,775	392,928	2,223,009	1,228,302	6,450,805	2,435,209	2,435,209	
<b>Total operating expenses</b>	<b>89,478,097</b>	<b>84,854,293</b>	<b>82,365,546</b>	<b>74,280,668</b>	<b>55,954,383</b>	<b>53,313,400</b>	<b>227,798,026</b>	<b>212,448,361</b>		
<b>Operating income (loss)</b>	<b>(3,492,462)</b>	<b>(3,124,817)</b>	<b>23,253,996</b>	<b>22,221,839</b>	<b>(54,888,554)</b>	<b>(48,999,555)</b>	<b>(35,127,020)</b>	<b>(29,902,533)</b>		
<b>Non-operating revenues (expenses):</b>										
Three-mill tax	-	-	-	-	16,043,825	14,139,193	16,043,825	14,139,193	14,139,193	
Six-mill tax	-	-	-	-	16,215,799	14,290,667	16,215,799	14,290,667	14,290,667	
Nine-mill tax	-	-	-	-	23,762,398	21,421,102	23,762,398	21,421,102	21,421,102	
Two-mill tax	-	-	-	-	7,526	4,960	7,526	4,960	4,960	
Other taxes	251,002	258,721	313,048	322,674	-	-	564,050	581,395	581,395	
Federal noncapital grants	24,738	2,405	-	-	-	-	24,738	2,405	2,405	
Interest income	2,104,903	966,949	2,308,629	1,341,518	253,938	202,579	4,667,470	2,511,046	2,511,046	
Bond issuance costs	-	(403,255)	-	(1,107,402)	-	-	-	(1,510,657)	(1,510,657)	
Interest expense	-	-	-	-	(32,471)	(53,518)	(32,471)	(53,518)	(53,518)	
<b>Total non-operating revenues (expenses)</b>	<b>2,380,643</b>	<b>824,820</b>	<b>2,621,677</b>	<b>556,790</b>	<b>56,251,015</b>	<b>50,004,983</b>	<b>61,253,335</b>	<b>51,386,593</b>		
<b>Income (expenses) before capital contributions</b>	<b>(1,111,819)</b>	<b>(2,299,997)</b>	<b>25,875,673</b>	<b>22,778,629</b>	<b>1,362,461</b>	<b>1,005,428</b>	<b>26,126,315</b>	<b>21,484,060</b>		
<b>Capital contributions</b>	<b>19,429,681</b>	<b>16,516,493</b>	<b>3,105,522</b>	<b>20,904,074</b>	<b>97,072,115</b>	<b>94,478,639</b>	<b>119,607,318</b>	<b>131,899,206</b>		
<b>Change in net position</b>	<b>18,317,862</b>	<b>14,216,496</b>	<b>28,981,195</b>	<b>43,682,703</b>	<b>98,434,576</b>	<b>95,484,067</b>	<b>145,733,633</b>	<b>153,383,266</b>		
<b>Net position, beginning of year</b>	<b>318,792,375</b>	<b>304,575,879</b>	<b>763,119,641</b>	<b>719,436,938</b>	<b>1,000,776,299</b>	<b>905,292,232</b>	<b>2,082,688,315</b>	<b>1,929,305,049</b>		
<b>Net position, end of year</b>	<b>\$ 337,110,237</b>	<b>\$ 318,792,375</b>	<b>\$ 792,100,836</b>	<b>\$ 763,119,641</b>	<b>\$ 1,099,210,875</b>	<b>\$ 1,000,776,299</b>	<b>\$ 2,228,421,948</b>	<b>\$ 2,082,688,315</b>		

See accompanying independent auditors' report

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF PROPERTY, PLANT AND EQUIPMENT BY DEPARTMENT**  
**As of December 31, 2016 and 2015**

	2016			
	Water	Sewer	Drainage	Total
Real estate rights, non depreciable	\$ 2,899,839	\$ 1,925,647	\$ 8,721,791	\$ 13,547,277
Power and pumping stations - buildings	65,815,156	46,788,994	266,828,264	379,432,414
Power and pumping stations - machinery	142,047,245	52,404,350	128,197,839	322,649,434
Distribution systems	270,088,600	-	-	270,088,600
Sewerage collection	-	519,874,279	-	519,874,279
Canals and subsurface drainage	-	-	705,506,297	705,506,297
Treatment plants	-	200,711,986	-	200,711,986
Connections and meters	69,626,596	30,617,082	-	100,243,678
Power transmission	10,727,059	7,535,716	13,555,173	31,817,948
General plant and buildings	<u>125,970,634</u>	<u>85,904,931</u>	<u>72,719,901</u>	<u>284,595,466</u>
 Total property, plant and equipment in service	 687,175,129	 945,762,985	 1,195,529,265	 2,828,467,379
Construction in progress	<u>121,126,038</u>	<u>298,861,766</u>	<u>420,780,634</u>	<u>840,768,438</u>
 Total property, plant and equipment	 808,301,167	 1,244,624,751	 1,616,309,899	 3,669,235,817
Accumulated depreciation	<u>337,811,191</u>	<u>264,345,441</u>	<u>322,387,525</u>	<u>924,544,157</u>
 Net property, plant and equipment	 <u>\$ 470,489,976</u>	 <u>\$ 980,279,310</u>	 <u>\$ 1,293,922,374</u>	 <u>\$ 2,744,691,660</u>

	2015			
	Water	Sewer	Drainage	Total
Real estate rights, non depreciable	\$ 2,898,138	\$ 1,929,243	\$ 9,103,579	\$ 13,930,960
Power and pumping stations - buildings	65,474,986	46,564,112	266,714,819	378,753,917
Power and pumping stations - machinery	139,873,285	50,862,868	126,582,551	317,318,704
Distribution systems	252,342,832	-	-	252,342,832
Sewerage collection	-	490,556,101	-	490,556,101
Canals and subsurface drainage	-	-	622,989,487	622,989,487
Treatment plants	-	200,451,465	-	200,451,465
Connections and meters	68,828,724	29,659,750	-	98,488,474
Power transmission	10,659,920	7,367,634	13,382,161	31,409,715
General plant and buildings	<u>125,276,954</u>	<u>85,567,502</u>	<u>71,702,471</u>	<u>282,546,927</u>
 Total property, plant and equipment in service	 665,354,839	 912,958,675	 1,110,475,068	 2,688,788,582
Construction in progress	<u>95,329,410</u>	<u>280,956,339</u>	<u>338,783,316</u>	<u>715,069,065</u>
 Total property, plant and equipment	 760,684,249	 1,193,915,014	 1,449,258,384	 3,403,857,647
Accumulated depreciation	<u>330,158,757</u>	<u>245,365,176</u>	<u>301,452,509</u>	<u>876,976,442</u>
 Net property, plant and equipment	 <u>\$ 430,525,492</u>	 <u>\$ 948,549,838</u>	 <u>\$ 1,147,805,875</u>	 <u>\$ 2,526,881,205</u>

See accompanying independent auditors' report.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF BONDS PAYABLE**  
For the year ended December 31, 2016

	Annual Interest Rates	Interest Payment Dates	Issue Date	Final Maturity Date	Outstanding as of 12/31/2015	New Debt in 2016	Payments in 2016	Outstanding as of 12/31/2016
Drainage System Bonds, 2014 (9-Mills)	4.53%	(6/1;12/1)	12/1/2014	6/1/2022	\$ 12,750,000	\$ -	\$ 1,650,000	\$ 11,100,000
Sewer Revenue Bonds, 2011	0.95%	(5/1; 11/1)	12/1/2011	12/1/1932	12,750,000	-	1,650,000	11,100,000
Sewer Revenue Bonds, 2014	4.87%	(6/1;12/1)	12/1/2014	6/1/1944	7,755,000	-	422,000	7,333,000
Sewer Revenue Bonds, 2015	5.00%	(6/1;12/1)	12/17/2015	12/1/1945	147,765,000	-	12,430,000	135,335,000
					100,000,000	-	-	100,000,000
					255,520,000	-	12,852,000	242,668,000
Water Revenue Bonds, 2014	5.00%	(6/1;12/1)	12/1/2014	6/1/1944	103,525,000	-	325,000	103,200,000
Water Revenue Bonds, 2015	4.98%	(6/1;12/1)	12/17/2015	2/1/2030	100,000,000	-	-	100,000,000
					203,525,000	-	325,000	203,200,000
<b>TOTAL</b>					<b>\$ 471,795,000</b>	<b>\$ -</b>	<b>\$ 14,827,000</b>	<b>\$ 456,968,000</b>

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, 2016**

	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	\$ 8,647,779	\$ 19,042,265	\$ 101,833	\$ 27,791,877	\$ 7,700,000	\$ 10,707,782	\$ 18,407,782
Cash receipts:							
Bond proceeds and accrued interest	-	2,275	-	2,275	-	-	-
Transfers from operating cash and debt service reserve	11,457,106	31,758,418	2,397,075	45,612,599	-	-	-
Excess debt service reserve fund applied to BANS 2006 Maturity	125,005	201,748	-	326,753	-	-	-
Total cash and investments	11,582,111	31,962,441	2,397,075	45,941,627	-	-	-
Cash disbursements:							
Principal and interest payments, cost of issuance and transfers	11,179,735	31,318,966	2,424,604	44,923,305	-	-	-
Total cash disbursements	11,179,735	31,318,966	2,424,604	44,923,305	-	-	-
Cash and investments at end of year	\$ 9,050,155	\$ 19,685,740	\$ 74,304	\$ 28,810,199	\$ 7,700,000	\$ 10,707,782	\$ 18,407,782

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, 2016

	Beginning of Year	Current Year Claims and Estimate Change	Payments	End of Year
<b><u>WATER</u></b>				
Short-term:				
Workers' compensation	\$ 319,620	\$ 1,627,883	\$ 1,458,923	\$ 488,580
Health insurance	607,785	10,141,626	10,029,521	719,890
General liability	2,865,850	845,719	100	3,711,469
Total short-term	<u>3,793,255</u>	<u>12,615,228</u>	<u>11,488,544</u>	<u>4,919,939</u>
Long-term:				
Workers' compensation	830,189	(313,291)	-	516,898
Total long-term	<u>830,189</u>	<u>(313,291)</u>	<u>-</u>	<u>516,898</u>
Total	<u>\$ 4,623,444</u>	<u>\$ 12,301,937</u>	<u>\$ 11,488,544</u>	<u>\$ 5,436,837</u>
<b><u>SEWERAGE</u></b>				
Short-term:				
Workers' compensation	\$ 319,620	\$ 1,211,912	\$ 1,042,952	\$ 488,580
Health insurance	626,442	6,703,658	6,632,258	697,842
General liability	1,698,545	1,795,444	-	3,493,989
Total short-term	<u>2,644,607</u>	<u>9,711,014</u>	<u>7,675,210</u>	<u>4,680,411</u>
Long-term:				
Workers' compensation	830,189	(313,291)	-	516,898
Total long-term	<u>830,189</u>	<u>(313,291)</u>	<u>-</u>	<u>516,898</u>
Total	<u>\$ 3,474,796</u>	<u>\$ 9,397,723</u>	<u>\$ 7,675,210</u>	<u>\$ 5,197,309</u>
<b><u>DRAINAGE</u></b>				
Short-term:				
Workers' compensation	\$ 319,620	\$ 1,059,606	\$ 890,646	\$ 488,580
Health insurance	633,373	4,904,676	4,848,280	689,769
General liability	3,291,157	1,776,032	191,812	4,875,377
Total short-term	<u>4,244,150</u>	<u>7,740,314</u>	<u>5,930,738</u>	<u>6,053,726</u>
Long-term:				
Workers' compensation	830,190	(313,291)	-	516,899
Total long-term	<u>830,190</u>	<u>(313,291)</u>	<u>-</u>	<u>516,899</u>
Total	<u>\$ 5,074,340</u>	<u>\$ 7,427,023</u>	<u>\$ 5,930,738</u>	<u>\$ 6,570,625</u>
<b><u>TOTAL</u></b>				
Short-term:				
Workers' compensation	\$ 958,860	\$ 3,899,401	\$ 3,392,521	\$ 1,465,740
Health insurance	1,867,600	21,749,960	21,510,059	2,107,501
General liability	7,855,552	4,417,195	191,912	12,080,835
Total short-term	<u>10,682,012</u>	<u>30,066,556</u>	<u>25,094,492</u>	<u>15,654,076</u>
Long-term:				
Workers' compensation	2,490,568	(939,873)	-	1,550,695
Total long-term	<u>2,490,568</u>	<u>(939,873)</u>	<u>-</u>	<u>1,550,695</u>
Total	<u>\$ 13,172,580</u>	<u>\$ 29,126,683</u>	<u>\$ 25,094,492</u>	<u>\$ 17,204,771</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, 2016**

**Cedric S. Grant, Executive Director**

<u>Purpose</u>	<u>Amount</u>
Salary	\$ 220,631
Benefits-hospitalization	11,432
Benefits-life insurance	201
Benefits-retirement	44,737
Reimbursements	92
Conference travel	4,439
Total	<u>\$ 281,532</u>

See accompanying independent auditors' report.



*The Water Hammer Hazard Mitigation Program will help protect our water distribution system piping from future damage due to water hammer. Water hammer is the transient surge of water pressure caused by intermittent losses in power at the plant. The water tower projects, when completed in early 2018, will help to reduce future leaks caused by water hammer and help mitigate the loss of water pressure due to power interruptions. These upgrades will allow plant personnel time to switch the electrical power source from commercial power to the Board's own generated power in the event of an interruption. The two new elevated water tanks planned for the Carrollton Plant will be a compliment to those tanks currently in service. The new tanks will have a combined capacity of 4 million gallons and not exceed 200 feet in height.*



*Steam-driven high service potable (drinking) water pumps A and B have been totally rehabilitated. These pumps provide drinking water to the residents of New Orleans. These are the only two remaining steam driven potable water pumps. The other pumps that are a part of the potable water system are 25 cycle and 60 cycle electric motor driven.*



**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SUMMARY OF STATISTICAL INFORMATION**  
**(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									
	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<b>Business-type activities</b>										
Net investment in capital assets	\$ 2,415,192,603	\$ 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	\$ 1,306,085,162	\$ 1,265,078,240
Restricted for debt service	47,217,981	46,199,659	30,846,959	33,405,265	35,186,883	33,137,542	32,774,880	30,040,670	32,075,521	27,986,164
Restricted for capital improvements	170,436,101	235,720,245	68,509,876	-	-	-	-	-	-	-
Unrestricted	(404,424,737)	(208,554,161)	(183,112,163)	(175,395,265)	(135,165,032)	(97,925,662)	(82,369,095)	(81,717,627)	(89,154,640)	(7,414,567)
<b>Total business-type activities net position</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>\$ 1,431,726,417</b>	<b>\$ 1,315,453,506</b>	<b>\$ 1,249,006,043</b>	<b>\$ 1,285,649,837</b>

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)**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<b>Operating revenues:</b>										
Sales of water and delinquent fees	\$ 83,158,940	\$ 78,007,937	\$ 70,818,255	\$ 64,398,609	\$ 60,256,304	\$ 59,890,312	\$ 55,079,772	\$ 50,677,054	\$ 43,995,732	\$ 37,795,522
Sewerage service charges	104,795,184	95,636,966	86,553,262	78,535,785	71,407,835	70,358,076	69,534,719	66,102,946	61,877,246	68,304,347
Plumbing inspection and license fees	638,502	610,768	678,352	643,036	687,806	758,072	746,426	484,448	590,604	542,340
Other revenue	4,078,380	8,290,157	5,024,480	5,119,368	4,626,276	8,581,123	4,702,753	3,814,564	2,487,983	2,927,070
<b>Total operating revenues</b>	<b>192,671,066</b>	<b>182,545,828</b>	<b>163,074,349</b>	<b>148,696,798</b>	<b>136,978,221</b>	<b>139,587,383</b>	<b>130,063,750</b>	<b>121,079,012</b>	<b>108,951,565</b>	<b>109,569,479</b>
<b>Operating Expenses:</b>										
Power and pumping	13,499,216	13,139,255	13,227,389	12,572,620	11,951,746	11,787,614	12,606,851	12,950,788	14,178,641	13,041,954
Treatment	20,300,344	18,740,637	19,527,000	18,143,049	18,906,540	18,081,523	19,029,752	19,910,557	18,243,782	16,280,975
Transmission and distribution	37,174,706	35,878,137	27,186,606	23,323,900	26,019,713	27,216,035	15,915,361	21,466,523	18,994,209	19,832,226
Customer accounts	4,151,027	3,807,405	3,514,360	3,425,934	3,334,652	3,369,643	3,314,887	3,044,936	2,719,594	2,290,092
Customer service	4,271,555	3,973,344	3,717,925	3,464,197	3,332,300	3,320,100	3,386,338	3,417,239	3,323,696	2,670,145
Administration and general	18,506,107	16,848,253	16,976,430	17,333,945	15,879,736	16,054,154	16,060,032	13,504,125	15,173,190	14,899,028
Payroll related	43,990,879	36,349,834	32,488,264	34,928,822	33,980,859	34,770,439	33,616,025	35,085,953	31,549,622	28,259,815
Maintenance of general plant	23,979,309	27,148,505	28,178,593	27,647,127	24,480,560	25,185,237	30,723,060	24,969,819	33,613,093	27,151,645
Depreciation	52,060,674	51,661,651	50,157,869	43,648,267	39,011,955	34,772,279	35,216,611	34,692,628	31,546,017	23,377,733
Provision for doubtful accounts	3,413,404	2,466,117	1,940,782	2,052,096	1,676,311	867,460	4,855,325	889,811	(12,225,823)	12,613,283
Provision for claims	6,450,805	2,435,209	2,444,878	1,801,114	130,704	(4,680,454)	3,186,714	58,860	587,465	(2,448,965)
<b>Total operating expenses</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>157,703,484</b>	<b>159,967,931</b>
<b>Operating loss</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>(48,751,919)</b>	<b>(50,398,452)</b>
<b>Non-operating revenues (expenses):</b>										
Two-mill tax	7,526	4,960	1,193	-	-	4,870	1,045	-	-	120
Three-mill tax	16,043,825	14,139,193	13,481,526	13,175,711	12,497,723	11,129,376	10,378,060	10,302,545	11,294,822	10,381,155
Six-mill tax	16,215,799	14,290,667	13,626,539	13,317,505	12,630,977	11,242,927	10,498,580	10,410,524	11,406,361	10,513,559
Nine-mill tax	23,762,398	21,421,102	20,425,388	19,962,114	18,933,290	16,855,081	15,672,791	15,485,030	17,001,253	15,773,070
Other taxes	564,050	581,395	572,083	494,106	278,394	316,079	333,795	371,006	515,735	443,122
Operating and maintenance grants	24,738	2,405	1,502	2,054,492	7,624,526	11,479,664	9,367,940	19,373,185	1,777,188	1,777,188
Interest income	4,667,470	2,511,032	811,263	353,650	401,387	426,870	274,323	885,723	3,545,564	5,826,769
Hurricane gain (loss)	-	(1,510,657)	(2,649,339)	-	-	-	-	-	-	205,995
Bond issuance costs	-	(32,471)	-	(371,349)	(737,893)	(736,878)	(1,687,693)	(1,766,553)	(1,720,030)	(2,443,612)
Interest expense	-	(53,518)	-	-	-	-	41,438,410	-	-	-
Forgiveness of Community Disaster Loan	-	-	-	30,061,368	-	-	-	-	-	-
<b>Total non-operating revenues (expenses)</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>42,039,732</b>	<b>42,477,366</b>
<b>Income (loss) before capital contributions</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>(6,712,187)</b>	<b>(7,921,086)</b>
<b>Capital contributions</b>	<b>119,680,318</b>	<b>131,899,206</b>	<b>141,873,884</b>	<b>114,317,656</b>	<b>114,530,907</b>	<b>115,575,107</b>	<b>48,959,148</b>	<b>60,298,230</b>	<b>(29,931,607)</b>	<b>71,955,106</b>
<b>Change in net position</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>(36,643,794)</b>	<b>64,034,020</b>
<b>Net position:</b>										
Beginning of year	2,082,688,315	1,929,305,049	1,777,846,757	1,662,411,674	1,537,979,418	1,402,842,769	1,315,453,506	1,249,006,043	1,285,649,837	1,221,615,817
Restatement	-	-	-	(38,685,857)	-	-	-	-	-	-
Beginning of year, as restated	2,082,688,315	1,929,305,049	1,777,846,757	1,623,725,817	1,537,979,418	1,402,842,769	1,315,453,506	1,249,006,043	1,285,649,837	1,221,615,817
<b>End of year</b>	<b>2,228,421,948</b>	<b>2,082,688,315</b>	<b>1,929,305,049</b>	<b>1,777,846,757</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>	<b>1,249,006,043</b>	<b>1,285,649,837</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)**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Revenues</b>										
Charges for service	\$ 106,642,409	\$ 106,463,582	\$ 117,264,448	\$ 125,360,977	\$ 131,006,460	\$ 132,351,945	\$ 143,577,430	\$ 158,049,869	\$ 174,255,671	\$ 188,592,626
Dedicated taxes	36,667,784	39,702,436	36,198,099	36,549,431	39,227,384	44,061,990	46,455,330	47,533,453	49,850,962	56,022,022
Two-mill tax	120	-	-	1,045	4,870	-	-	1,193	4,960	7,526
Interest on investments	5,825,769	3,545,564	885,723	274,323	426,870	401,387	353,630	811,263	2,511,046	4,667,470
Other taxes and revenue	5,147,380	2,999,745	23,558,755	55,842,898	20,376,866	12,529,196	37,729,334	5,598,065	7,363,300	4,667,168
	<u>\$ 154,284,462</u>	<u>\$ 152,711,327</u>	<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>
<b>Expenses</b>										
Personnel services	\$ 61,421,931	\$ 68,605,280	\$ 74,540,678	\$ 72,725,464	\$ 73,834,142	\$ 74,358,288	\$ 75,998,997	\$ 76,009,536	\$ 81,094,850	\$ 88,422,754
Services and utilities	52,966,504	56,428,567	50,787,395	47,125,394	42,417,785	40,621,806	44,686,711	46,739,864	46,321,849	48,095,715
Materials and supplies	9,879,426	12,603,961	8,880,950	12,535,610	23,532,818	22,906,012	20,153,886	22,067,167	28,468,671	29,354,674
Depreciation and amortization	25,535,752	31,704,036	34,833,545	35,381,030	34,850,026	39,011,955	43,648,267	50,157,869	51,661,651	52,060,674
Provision for doubtful accounts	12,613,283	(12,225,825)	889,811	4,855,325	867,460	1,676,511	2,052,096	1,940,782	2,466,131	3,413,404
Provision for claims	(2,448,965)	587,465	58,860	3,186,714	(4,680,454)	130,704	1,801,114	2,444,878	2,435,209	6,450,805
Hurricane Loss	(205,995)	-	-	-	-	-	-	-	1,510,657	-
Bond issuance costs	-	-	-	-	-	-	-	-	-	-
Interest	2,443,612	1,720,030	1,766,553	1,687,603	736,878	737,893	371,349	2,649,339	53,518	32,471
	<u>\$ 162,205,548</u>	<u>\$ 159,423,514</u>	<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>

**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			
2007	1,362,097	483,200	1,845,297	14,645,214	12.6%
2008	2,004,624	539,492	2,544,116	20,698,664	12.3%
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 (2)	16.5%
2016	3,376,001	456,454	3,832,455	30,873,272	12.4%

Source: City of New Orleans

(1) Amounts are net of the homestead exemption.

(2) Latest date available for total estimated actual value is 2009.

**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)**

Fiscal Year	City of New Orleans	Orleans Levee Board	Orleans Levee District		Algiers Levee District	Sewerage & Water Board of New Orleans		Orleans Parish School Board	Audubon Park & Zoo	Total
			Levee District Eastbank	Levee District		New Orleans	Parish School Board			
2007	82.39	12.76	0*	0**	0***	22.59**	52.90	4.55	175.19	
2008	61.34	0*	9.65	9.28	9.28	16.43**	38.47	3.31	129.20	
2009	61.34	0*	10.95	12.76	12.76	16.03**	38.47	3.31	130.10	
2010	64.31	0*	11.67	12.76	12.76	16.43**	44.12	3.31	140.93	
2011	72.05	0*	11.67	12.76	12.76	16.43**	44.12	3.31	148.67	
2012	72.05	0*	11.67	12.76	12.76	16.43**	43.60	3.31	148.15	
2013	72.05	0*	11.67	12.36	12.36	16.43**	44.81	3.31	136.60	
2014	72.05	0*	11.67	12.76	12.76	16.43**	45.31	3.31	147.58	
2015	71.95	0*	11.67	12.56	12.56	16.43**	45.31	3.31	149.56	
2016	74.45	0*	12.28	6.21	6.21	16.43**	45.31	3.31	145.71	

Source: City of New Orleans

\*Special millage beginning in 2008 and no longer City-wide.

\*\*3 mills adopted in 1967 expires in 2017

\*\*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, 2016 and Nine Years Ago**  
**(Amounts in thousands)**  
**(Unaudited)**

Name of Taxpayer	Type of Business	2016 Assessed Value	Percentage of Total Assessed Value
Entergy	Electric and gas utilities	\$ 102,345	2.90%
Capital One Bank	Financial institution	58,608	1.66%
BellSouth	Telephone utilities	36,924	1.05%
Marriott Hotel	Hospitality	32,523	0.92%
Harrah's	Hospitality and gaming	28,828	0.82%
Folger Coffee	Coffee Roasting Plant	23,846	0.67%
J P Morgan Chase Bank	Financial institution	19,055	0.54%
International Rivercenter	Real Estate	18,886	0.53%
Sheraton Hotel	Hospitality	16,729	0.47%
Royal Sonesta Hotel	Hospitality	14,938	0.42%
		<u>\$ 352,682</u>	<u>9.98%</u>

Name of Taxpayer	Type of Business	2007 Assessed Value	Percentage of Total Assessed Value
Energy Services	Electric and gas utilities	\$ 60,220	3.65%
BellSouth Telecommunications	Telephone utilities	58,436	3.55%
Hibernia National Bank	Financial institution	49,568	3.01%
Harrah's Entertainment	Hospitality and gaming	21,178	1.65%
Whitney National Bank	Financial institution	23,583	1.43%
CS&M Association (Sheraton)	Real Estate	20,725	1.23%
International River Center	Real Estate	19,058	1.16%
Marriott Hotel Properties	Hospitality	15,271	0.93%
J P Morgan Chase Bank	Financial institution	13,385	0.81%
SHC New Orleans (Hyatt)	Hospitality	11,247	0.68%
		<u>\$ 292,671</u>	<u>18.10%</u>

Source: City of New Orleans

**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:						
2007	\$ 250,462	\$ 225,743	90.13%	\$ 21,675	\$ 247,418	98.78%
2008	269,746	243,204	90.16%	23,438	266,642	98.85%
2009	275,869	257,219	93.24%	15,219	272,438	98.76%
2010	309,800	291,078	93.96%	14,598	305,676	98.67%
2011	339,370	320,437	94.42%	13,717	334,154	98.46%
2012	362,262	342,248	94.48%	13,528	355,776	98.21%
2013	382,902	363,026	94.81%	11,234	374,260	97.74%
2014	393,304	375,815	95.55%	-	375,815	95.55%
2015	422,306	397,843	94.21%	11,168	409,011	96.85%
2016	457,800	442,153	96.58%	13,137	455,290	99.45%
Personal Property Taxes:						
2007	82,046	\$ 74,258	90.51%	3,709	\$ 77,967	95.03%
2008	67,548	59,645	88.30%	4,429	64,074	94.86%
2009	69,935	63,118	90.25%	3,444	66,562	95.18%
2010	74,530	68,508	91.92%	2,242	70,750	94.93%
2011	78,996	74,204	93.93%	1,653	75,857	96.03%
2012	81,685	78,275	95.83%	1,550	79,825	97.72%
2013	87,058	84,410	96.96%	365	84,775	97.38%
2014	84,620	81,926	96.82%	-	81,926	96.82%
2015	86,961	81,773	94.03%	1,002	82,775	95.19%
2016	92,428	88,797	96.07%	744	89,541	96.88%

Source: City of New Orleans



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

Year	Water					Sewer	
	Monthly Base Rate	Rate per 1,000 Gallons				Monthly Base Rate	Rate per 1,000 Gallons
First 3,000 Gallons		Next 17,000 Gallons	Next 980,000 Gallons	All Gallons Over 1,000,000			
2007	\$ 3.50	\$ 1.94	\$ 3.31	\$ 2.60	\$ 2.19	\$ 11.60	\$ 4.04
2008	\$ 3.50	\$ 2.35	\$ 4.01	\$ 3.15	\$ 2.65	\$ 11.60	\$ 4.04
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

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  
 (Unaudited)

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		Capital Leases Payable		Total Debt	Percentage of Personal Income	Debt per Capita
			Bonds	Bonds	Bonds	Bonds	Payable	Payable	Loan	Payable	Payable						
2007	\$ 14,831,565	288,113	\$ 246,907,968	\$ 23,835,000	\$ -	\$ 61,956,747	\$ 64,655,122	\$ 104,445	\$ 397,459,282	3.73%	\$ 1,380						
2008	\$ 15,802,534	336,644	\$ 235,216,902	\$ 22,710,000	\$ -	\$ 61,956,747	\$ 77,460,393	\$ -	\$ 397,344,042	3.98%	\$ 1,180						
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	\$ -	\$ 45,444,166	\$ -	\$ 352,386,936	4.66%	\$ 930						
2015	\$ 18,032,254	389,617 (3)	\$ 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						

(1) Source: Bureau of Economic Analysis.  
 (2) Source: www.census.gov/popest.  
 (3) Most recent available is as of March 2014.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
COMPUTATION OF DIRECT AND OVERLAPPING DEBT  
December 31, 2016  
(Unaudited)**

	<u>Net Outstanding Debt</u>	<u>Percentage Overlapping</u>	<u>Overlapping Debt</u>
<b>Direct debt:</b>			
Sewerage and Water Board, net of debt service funds (tax bonds only)	<u>\$ 11,100,000</u>	<u>100%</u>	<u>\$ 11,100,000</u>
<b>Overlapping debt:</b>			
City of New Orleans	595,914,616	100%	595,914,616
Audubon Park Commission	16,615,000	100%	16,615,000
Orleans Parish School Board (1)	<u>130,670</u>	<u>100%</u>	<u>130,670</u>
Total overlapping debt	<u>612,660,286</u>	<u>100%</u>	<u>612,660,286</u>
Total direct and overlapping debt	<u><u>\$ 623,760,286</u></u>	<u><u>100%</u></u>	<u><u>\$ 623,760,286</u></u>

(1) The fiscal year of the Orleans Parish School Board ends on June 30th; overlapping debt is based on June 30, 2016 financial information.

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**REVENUE BONDS DEBT SERVICE COVERAGE**  
**WATER BONDS**

Last Ten Fiscal Years  
(Unaudited)

Fiscal Year	Operating Revenue	Direct Operating Expenses	Net Revenue Available for Debt Services	Debt Service Requirement		Coverage
				Principal	Interest	
2007	35,098,826	58,708,774	(23,609,948)	1,820,000	1,980,068	3,800,068 (6.21)
2008	47,435,375	66,989,084	(19,553,709)	1,920,000	1,917,131	3,837,131 (5.10)
2009	70,211,761	51,983,869	18,227,892	2,115,000	1,771,268	3,886,268 4.69
2010	77,837,538	58,180,206	19,657,332	2,220,000	1,685,618	3,905,618 5.03
2011	76,400,717	64,677,227	11,723,490	2,325,000	1,592,393	3,917,393 2.99
2012	73,802,442	61,988,096	11,814,346	2,435,000	1,493,380	3,928,380 3.01
2013	100,320,212	64,170,029	36,150,183	2,545,000	1,374,043	3,919,043 9.22
2014	74,221,260	66,607,501	7,613,759	-	2,829,414	2,829,414 2.69
2015	82,957,551	69,027,402	13,930,149	-	3,500,000	3,500,000 3.98
2016	88,366,278	74,434,754	13,931,524	325,000	7,646,525	7,971,525 1.75

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
REVENUE BONDS DEBT SERVICE COVERAGE**

**SEWER BONDS**

Last Ten Fiscal Years

(Unaudited)

Fiscal Year	Operating Revenue	Direct Operating Expenses	Net Revenue Available for Debt Services	Debt Service Requirements		Total	Coverage
				Principal	Interest		
2007	64,750,010	38,899,024	25,850,986	9,130,000	10,211,257	19,341,257	1.34
2008	70,836,988	42,135,587	28,701,401	15,035,000	3,326,538	18,361,538	1.56
2009	69,501,438	49,879,875	19,621,563	11,255,000	9,058,968	20,313,968	0.97
2010	87,569,727	44,361,297	43,208,430	11,815,000	8,435,057	20,250,057	2.13
2011	74,173,489	43,173,641	30,999,848	12,400,000	7,863,432	20,263,432	1.53
2012	72,399,088	44,869,796	27,529,292	13,431,000	7,282,082	20,713,082	1.33
2013	80,080,102	45,378,129	34,701,973	14,110,000	6,616,719	20,726,719	1.67
2014	88,756,831	45,943,518	42,813,313	13,695,000	5,445,799	19,140,799	2.24
2015	98,166,699	48,664,503	49,502,196	11,644,000	4,708,974	16,352,974	3.03
2016	108,241,219	56,206,881	52,034,338	12,852,000	10,463,838	23,315,838	2.23

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

<u>Fiscal Year</u>	<u>Cash Balance</u>	<u>One Day O&amp;M</u>	<u>Measurement</u>
2013	40,314,163	169,210	238.25
2014	32,497,474	188,711	172.21
2015	39,230,354	196,385	199.76
2016	38,585,058	203,565	189.55

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

<u>Fiscal Year</u>	<u>Cash Balance</u>	<u>One Day O&amp;M</u>	<u>Measurement</u>
2013	23,010,471	121,350	189.62
2014	26,736,696	130,990	204.11
2015	40,249,837	153,064	262.96
2016	62,709,401	161,008	389.48

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

Fiscal Year	Population (1)	Personal Income (2) (in thousands)	Per Capita Personal Income	Unemployment Rate (3)
2007	288,113	\$ 14,831,565	\$ 51,478	3.50%
2008	336,644	\$ 15,802,534	\$ 46,941	4.40%
2009	354,850	\$ 15,260,613	\$ 35,507	6.80%
2010	347,907	\$ 15,260,613	\$ 35,507	8.50%
2011	360,740	\$ 15,260,613	\$ 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	\$ 14,403,884	\$ 36,792	5.40%

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

(2) Source: Estimates- Bureau of Economic Analysis.

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



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

	2007	2008	2009	2010	2011	2012	2013	(1) 2014	(2) 2015	(2) 2016
Acme Truck Line Inc.	8 / 250							10 / 3,100	10 / 3,100	10 / 3,100
Al Copeland Investments		10 / 2,000	7 / 2,000	7 / 2,000	8 / 2,500	9 / 2,000				
Boh Bros. Construction			9 / 1,500	9 / 1,500	9 / 2,200	9 / 2,000				
Boomtown Casino Westbank	6 / 781									
Capital One Bank N.A.		9 / 2,150	6 / 2,150	6 / 2,150	8 / 2,150	8 / 2,150				
City of New Orleans		5 / 3,500								
Dow Chemical Company			8 / 2,000	8 / 2,000	10 / 2,000	10 / 2,000				
East Jefferson General Hospital		6 / 3,150				5 / 3,150				
Harrah's New Orleans Casino		8 / 2,200	5 / 2,200	5 / 2,200	7 / 2,700	7 / 2,200	7 / 2,700	4 / 5,000	4 / 5,000	4 / 5,000
Hilton New Orleans			10 / 1,400	10 / 1,400						
Hope Haven Center	10 / 150									
Houma Industries	9 / 160							3 / 6,000	3 / 6,000	3 / 6,000
Ingalls Shipbuilding										
JCC Holding Co. LLC										
Lockheed Martin Manned Space Systems	2 / 2,832	7 / 2,832	4 / 2,832	4 / 2,832	7 / 2,800	7 / 2,800				
Louisiana Children's Medical Center								7 / 4,500	7 / 4,500	7 / 4,500
LSU Health Sciences Center New Orleans		3 / 5,000			2 / 7,000	3 / 5,000	2 / 7,000	2 / 7,000	2 / 7,000	2 / 7,000
LSU Public Hospital								5 / 5,000	5 / 5,000	5 / 5,000
NASA Michoud					10 / 2,000		9 / 2,000			
North Oaks Health System	1 / 5,400	2 / 5,400	2 / 5,400	2 / 5,400	3 / 6,000	2 / 5,400	7 / 2,700			
Northrup Grumman Avondale		1 / 9,107	1 / 9,107	1 / 9,107	1 / 9,800	1 / 9,100	3 / 6,000			
Ochsner Medical Institutions / Health System							1 / 9,100	1 / 9,800	1 / 9,800	1 / 9,800
Superior Energy Services, Inc.	7 / 750									
Textron Marine & Land Systems	5 / 1,165	4 / 4,410	3 / 4,410	3 / 4,410	4 / 5,000	4 / 4,400	4 / 5,000	6 / 4,700	6 / 4,700	6 / 4,700
Tulane University					6 / 3,114	6 / 3,114	6 / 3,114	9 / 3,100	9 / 3,100	9 / 3,100
University of New Orleans					5 / 4,000	6 / 2,900	5 / 4,000	8 / 4,000	8 / 4,000	8 / 4,000
US Post Office										
USDA, National Finance Center	4 / 1,300									
West Jefferson Medical Center	3 / 1,654						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)**

<u>Year</u>	<u>Water (1)</u>	<u>Sewer (1)</u>	<u>Drainage (1)</u>	<u>Total</u>
2007	\$ 19,053,142	\$ 56,093,058	\$ 16,250,996	\$ 91,397,196
2008	\$ 19,938,659	\$ 25,608,236	\$ 28,592,805	\$ 74,139,700
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	\$ 79,241,317	\$ 179,966,028
2014	\$ 46,604,884	\$ 58,870,182	\$ 152,172,018	\$ 257,647,084
2015	\$ 42,638,486	\$ 56,387,080	\$ 155,764,692	\$ 254,790,258
2016	46,106,462	48,975,578	167,051,515	\$ 262,133,555

(1) Includes contributed assets

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF FUTURE DEBT PAYMENTS**  
**December 31, 2016**  
**(Unaudited)**

		<b>Water Revenue Bonds</b>		
		<b>Series</b>	<b>Water</b>	<b>All Bond</b>
		<b>2014</b>	<b>2015</b>	<b>Issues</b>
2017	Principal	2,540,000	-	2,540,000
	Interest	5,160,000	4,940,550	10,100,550
2018	Principal	2,660,000	700,000	3,360,000
	Interest	5,033,000	4,940,550	9,973,550
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
<b>Total Principal</b>		<b>103,200,000</b>	<b>100,000,000</b>	<b>203,200,000</b>
<b>Total Interest</b>		<b>86,652,500</b>	<b>99,758,050</b>	<b>186,410,550</b>
<b>Total Future Debt Payments</b>		<b>\$ 189,852,500</b>	<b>\$ 199,758,050</b>	<b>\$ 389,610,550</b>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF FUTURE DEBT PAYMENTS**  
**December 31, 2016**  
**(Unaudited)**

		<b>Sewer Revenue Bonds</b>			
		<b>Series 2011</b>	<b>Series 2014</b>	<b>Series 2015</b>	<b>All Bond Issues</b>
2017	Principal	427,000	12,970,000	-	13,397,000
	Interest	32,240	6,339,825	5,000,000	11,372,065
2018	Principal	431,000	11,925,000	-	12,356,000
	Interest	30,318	5,717,450	5,000,000	10,747,768
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
<b>Total Principal</b>		<b>7,333,000</b>	<b>135,335,000</b>	<b>100,000,000</b>	<b>242,668,000</b>
<b>Total Interest</b>		<b>274,916</b>	<b>71,822,362</b>	<b>99,312,500</b>	<b>171,409,778</b>
<b>Total Future Debt Payments</b>		<b>\$ 7,607,916</b>	<b>\$ 207,157,362</b>	<b>\$ 199,312,500</b>	<b>\$ 414,077,778</b>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF FUTURE DEBT PAYMENTS**  
**December 31, 2016**  
**(Unaudited)**

		<b>Drainage Special Tax Bonds</b>	
		<b>Series</b>	<b>All Bond</b>
		<b>2014</b>	<b>Issues</b>
2017	Principal	1,690,000	1,690,000
	Interest	334,050	334,050
2018	Principal	1,745,000	1,745,000
	Interest	283,350	283,350
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
2023	Principal	-	-
	Interest	-	-
Total Principal		11,100,000	11,100,000
Total Interest		1,101,000	1,101,000
Total Future Debt Payments		<u>\$ 12,201,000</u>	<u>\$ 12,201,000</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SCHEDULE OF FUTURE DEBT PAYMENTS**  
**December 31, 2016**  
**(Unaudited)**

		All Departments			
		Water	Sewer	Drainage	Total
2017	Principal	2,540,000	13,397,000	1,690,000	17,627,000
	Interest	10,100,550	11,372,065	334,050	21,806,665
2018	Principal	3,360,000	12,356,000	1,745,000	17,461,000
	Interest	9,973,550	10,747,768	283,350	21,004,668
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		203,200,000	242,668,000	11,100,000	456,968,000
Total Interest		186,410,550	171,409,778	1,101,000	358,921,328
Total Future Debt Payments		<u>\$ 389,610,550</u>	<u>\$ 414,077,778</u>	<u>\$ 12,201,000</u>	<u>\$ 815,889,328</u>

**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)	Estimated actual property value (3) (in thousands)
	Number of units	Value (in thousands)	Number of units	Value (in thousands)		
2007	2,044	506,281	1,427	182,729	10,062,454	14,645,214
2008	1,929	550,895	1,215	160,387	10,553,556	20,698,664
2009	364	220,748	1,862	227,714	10,480,561	21,974,841
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	

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

(2) Summary of Deposits (as of June 30, 2016) - bank branches located in New Orleans, Federal Depository Insurance Corporation.

(3) Source: City of New Orleans - Latest date available 2009

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**CAPITAL ASSET STATISTICS BY FUNCTION**  
 Last Ten Fiscal Years  
 (Unaudited)

	Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Water:</b>										
Water lines (miles)	1,583	1,586	1,587	1,590	1,597	1,599	1,805	1,812	1,819	1,822
Water manholes	29,632	29,673	29,741	29,957	30,150	30,194	30,297	30,402	30,463	30,508
Water valves	29,246	29,255	29,277	29,366	29,611	29,521	29,629	29,730	29,791	30,508
Fire hydrants	22,780	22,785	22,894	22,989	23,045	23,078	23,099	23,117	23,130	29,831
<b>Sewer:</b>										
Sewers lines (miles)	1,503	1,507	1,512	1,518	1,519	1,520	1,536	1,547	1,561	1,568
Sewer manholes	22,922	22,974	22,998	23,047	22,977	22,983	22,987	23,042	23,051	23,115



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

<u>Year</u>	<u>Number of Active Employees</u>
2016	1108
2015	1183
2014	1060
2013	1025
2012	991
2011	994
2010	974
2009	964
2008	940

Source: Sewerage and Water Board of New Orleans.



*The Southeast Louisiana Urban Flood Control Project (SELA) consists of canal and pumping station projects that are being designed and constructed to reduce flooding caused by 10 year frequency rainfall events. The SELA program brings much needed federal funds to Sewerage and Water Board for massive expansion of the drainage system throughout the city. This investment in drainage infrastructure projects continues the fight in improving drainage. Many of these projects are underway, nearing completion, or completed.*

*Sewerage and Water Board joined with the Army Corps of Engineers to upgrade and build canals, pumping stations and electrical generator power. The Napoleon Avenue Canal Project, one of many SELA projects, has a new concrete box canal that is 7,100 linear feet long and parallels the existing box canal from Constance Street to Claiborne Avenue. Napoleon Avenue Canal Project completion is shown, landscaping goal is 2018.*



*Central Yard Garage I has been rehabilitated as an automotive repair garage set up to service the small automobiles and trucks that make up the fleet of Sewerage & Water Board. This two story building is equipped with mechanic work stations, parts storage room on two levels, offices on two levels, employee shower and locker rooms. There is also a fully equipped lunch room. All of these areas are climate controlled.*

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**December 31, 2016**  
**ACTUAL CAPITAL EXPENDITURES**

**WATER DEPARTMENT**

**C.P.#**      **WATERWORKS**

110	Normal Extension & Replacement	\$	3,483,174.89
156	Advanced Water Treatment (Carrollton)		735,404.92
175	Water Hurricane Recovery Bonds		4,886,835.15
180	FEMA Review of Change Orders - Water		11,683,197.41
	<b>TOTAL WATERWORKS</b>	<b>\$</b>	<b>20,788,612.37</b>

**WATER DISTRIBUTION**

214	Normal Extension & Replacement	\$	2,142,181.44
216	Water System Replacement Program		2,096,192.46
239	Mains DPW Contracts		(158,499.87)
	<b>TOTAL WATER DISTRIBUTION</b>	<b>\$</b>	<b>4,079,874.03</b>

**POWER PROJECTS AND GENERAL BUDGET**

600	Water Share of Power Projects	\$	5,864,913.81
700	Water Reserve for Emergencies		233,730.58
800	Water Share of General Budget Items		9,168,341.31
	<b>GENERAL BUDGET</b>	<b>\$</b>	<b>15,266,985.70</b>
	<b>TOTAL WATER DEPARTMENT</b>	<b>\$</b>	<b>40,135,472.10</b>

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

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**December 31, 2016**  
**ACTUAL CAPITAL EXPENDITURES**

**SEWERAGE DEPARTMENT**

<u>C.P.#</u>	<u>SEWERAGE SYSTEM</u>		
313	<u>Ext. &amp; Replace - Sewer ForceMains EPA Consent &amp; Decree</u>		321,042.10
317	Normal Extensions & Replacement of Gravity Mains		10,126,432.14
318	Rehabilitation Gravity Sewer System		3,015,865.33
326	Ext. Rep to plumbing Stations EPA Consent Deree		839,571.18
339	Main in Streets Dept. Contracts		(1,610,844.76)
340	Sewerage Hurricane Recovery Bonds (FEMA)		4,466,847.36
348	Normal Extensions & Replacements		8,511,324.72
368	Wetlands Assimilation Project		1,052,443.65
375	Sewerage Hurricane Recovery Bonds		1,324,029.91
380	FEMA Review of Change Orders-Sewer		1,356,523.24
	<b>TOTAL SEWERAGE SYSTEM</b>	<b>\$</b>	<b>29,403,234.87</b>
<b><u>POWER PROJECTS AND GENERAL BUDGET</u></b>			
600	Sewerage Share of Power Projects	\$	2,110,436.00
700	Sewer Reserve for Emergencies		63,520.51
800	Sewerage Share of General Budget Items		8,967,252.95
	<b>TOTAL GENERAL BUDGET</b>	<b>\$</b>	<b>11,141,209.46</b>
	<b>TOTAL SEWERAGE DEPARTMENT</b>	<b>\$</b>	<b>40,544,444.33</b>

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

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**December 31, 2016**

**ACTUAL CAPITAL EXPENDITURES**

**DRAINAGE DEPARTMENT**

<u>C.P.#</u>	<u>CANALS</u>	
418	Normal Extension & Replacements	\$ 44,887.37
439	Major Drainage Participation in DPW Projects	131,944.96
466	Louisiana Avenue Canal (SELA)	13,067,979.16
471	SELA Program Management	2,460,361.37
476	Hollygrove Canal (SELA)	10,971.59
478	S. Claiborne-Lowerline to Monticello Street	297,717.21
480	FEMA Review of Change Orders-Drainage	2,606,075.84
486	Napoleon Avenue Canal Improvements (SELA-B)	123,631.75
497	Florida Ave. Canal - DPS#19 to Peoples Ave. (SELA-B)	921,077.00
498	Dwyer Intake Canal (St. Charles to Dwyer (DPS)(SELA-A)	50,951.58
499	Jefferson Avenue Canal	557,141.36
	<b>TOTAL DRAINAGE CANALS</b>	<b>\$ 20,272,739.19</b>
	 <b><u>PUMPING STATIONS</u></b>	
511	Normal Extension & Rep./Stations	\$ 225,488.95
575	Drainage Hurricane Recovery Bonds	1,044,940.73
	<b>TOTAL DRAINAGE PUMPING STATIONS</b>	<b>\$ 1,270,429.68</b>
	 <b><u>POWER PROJECTS AND GENERAL BUDGET</u></b>	
600	Drainage Share of Power Projects	\$ 9,673,518.93
700	Drainage Reserve for Emergencies	1,097,286.12
800	Drainage Share of General Budget Items	6,953,788.31
	<b>TOTAL GENERAL BUDGET</b>	<b>\$ 17,724,593.36</b>
	 <b>TOTAL DRAINAGE DEPARTMENT</b>	<b>\$ 39,267,762.23</b>

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

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**December 31, 2016**  
**ACTUAL CAPITAL EXPENDITURES**

		<u>POWER PROJECTS</u>				
<u>C.P.#</u>	<u>POWER PROJECTS</u>	<u>Water</u>	<u>Sewerage</u>	<u>Drainage</u>	<u>Total</u>	
624	Extension and Replacements to Electrical System	\$ 613,183.68	\$ 102,421.55	\$ 1,030,171.39	\$ 1,745,776.62	
676	Modification to Power Generating System (HMGP)	5,251,730.13	2,008,014.45	8,643,347.54	15,903,092.12	
701	Water Reserve for Emergencies	67,600.00			67,600.00	
702	Sewer Reserve for Emergencies					
703	Water Reserve for Emergencies	\$ 166,130.58	63,520.51		166,130.58	
703	Sewer Reserve for Emergencies				63,520.51	
703	Drainage Reserve for Emergencies			1,097,286.12	1,097,286.12	
<b>TOTAL POWER PROJECTS</b>		<u>\$ 6,098,644.39</u>	<u>\$ 2,173,956.51</u>	<u>\$ 10,770,805.05</u>	<u>\$ 19,043,405.95</u>	

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

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**December 31, 2016**  
**ACTUAL CAPITAL EXPENDITURES**

		<u>GENERAL BUDGET ITEMS</u>					
<u>C.P.#</u>	<u>General Budget Items</u>	<u>Water</u>	<u>Sewerage</u>	<u>Drainage</u>	<u>Total</u>		
803	Property Acquisition	\$40,535.00			\$40,535.00		
807	Improvements to Central Yard and St. Joseph St.	62,873.71	62,873.69	34,279.69	\$160,027.09		
808	Improvements to Customer Service Satellite	4,098.91	4,098.90		\$8,197.81		
810	Major Equipment Purchases	1,276,555.59	1,276,555.62	1,276,555.59	\$3,829,666.80		
812	Computer Systems Development	1,870,022.00	1,870,021.64	924,613.06	\$4,664,656.70		
820	Overhead Charged to Capital	4,627,300.06	4,515,752.14	3,657,456.38	\$12,800,508.58		
823	Purchase of Water Meters	442,773.31	442,773.29		\$885,546.60		
824	Meter Boxes and Meter Parts	430,284.38	430,284.28		\$860,568.66		
843	Minor Equipment Purchases	364,893.35	364,893.39	364,893.35	\$1,094,680.09		
862	Fire Hydrants and Related Parts	49,005.00			\$49,005.00		
879	Green Infrastructure			695,990.24	\$695,990.24		
<b>TOTAL GENERAL BUDGET ITEMS</b>		<u>\$9,168,341.31</u>	<u>\$8,967,252.95</u>	<u>\$6,953,788.31</u>	<u>\$25,089,382.57</u>		

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

SEWERAGE AND WATER BOARD OF NEW ORLEANS  
 DECEMBER 31, 2016  
 ANALYSIS OF PUMPING AND POWER DEPARTMENT  
 POWER PURCHASED AND PRODUCED  
 NATURAL GAS AND FUEL OIL CONSUMED  
 TEN YEARS 2007 THROUGH 2016

YEAR	ELECTRIC POWER PURCHASED		ELECTRIC & STEAM POWER GENERATED BY THE S&WB		NATURAL GAS			NATURAL GAS & FUEL OIL USED TO GENERATE ELECTRIC & STEAM POWER		
	KW-HRS	\$ AMOUNT	KW-HRS	\$ AMOUNT	MCF	\$ AMOUNT	GALLONS	\$ AMOUNT	GALLONS	\$ AMOUNT
2007	68,574,205	\$7,278,339	39,421,440	\$15,138,653	1,464,900	\$15,131,635	1,464	\$7,018		
2008	62,579,355	\$7,051,655	40,407,984	\$19,125,397	1,535,660	\$18,895,716	85,222	\$229,681		
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		
TOTALS	683,048,531	\$67,048,502	358,620,681	\$117,192,424	16,049,637	\$116,900,443	101,361	\$292,151		



**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
 DECEMEBR 31, 2016  
 POWER PURCHASED AND PRODUCED  
 NATURAL GAS AND FUEL OIL CONSUMED**

	KW-HOURS	COST
ELECTRIC POWER PURCHASED	69,736,118	\$7,081,050.64
ELECTRIC AND STEAM POWER GENERATED BY THE S.& W.B.*	33,182,519	\$9,082,987.70
TOTAL	102,918,637	\$16,164,038.34

NOTE: \*NATURAL GAS CONSUMED IN OPERATION WAS 1,854,370 MCF  
 AT A COST OF \$9,082,978. FUEL OIL CONSUMED WAS 0 GALLONS  
 AT A COST OF \$0

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**GALLONS METERED - PAY WATER CONSUMPTION**  
**December 31, 2016**

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<u>Month</u>	<u>Consumption</u>
January	1,081,229,200
February	1,015,665,300
March	1,034,008,500
April	1,009,677,500
May	1,037,995,600
June	1,117,607,400
July	1,128,169,600
August	1,063,011,500
September	1,070,999,129
October	1,025,123,218
Novemeber	1,136,284,390
December	<u>1,386,964,503</u>
Gross Total	<u><u>13,106,735,840</u></u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
DECEMBER 31, 2016  
MONTHLY WATER CHARGES COLLECTED**

<u>Months</u>	<u>Water Service Charges &amp; Fees</u>	<u>Delinquent Fees</u>	<u>Total</u>
January	\$ 6,803,245.21	\$ 114,215.86	\$ 6,917,461.07
February	6,942,620.28	107,632.64	7,050,252.92
March	7,573,066.50	113,042.52	7,686,109.02
April	7,107,352.65	102,075.24	7,209,427.89
May	6,913,914.36	105,689.63	7,019,603.99
June	7,437,727.94	104,070.56	7,541,798.50
July	6,786,604.70	101,303.21	6,887,907.91
August	8,440,662.56	79,623.08	8,520,285.64
September	6,400,916.84	121,362.28	6,522,279.12
October	7,112,386.09	81,052.91	7,193,439.00
November	10,907,380.25	83,611.77	10,990,992.02
December	9,005,601.85	52,022.68	9,057,624.53
	<u>\$ 91,431,479.23</u>	<u>\$ 1,165,702.38</u>	<u>\$ 92,597,181.61</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS  
MONTHLY SEWERAGE CHARGES COLLECTED - 2016**

<u>Months</u>	<u>Sewerage Service Charges</u>	<u>Delinquent Fees</u>	<u>Total</u>
January	\$ 8,097,046.26	\$ 76,274.84	\$ 8,173,321.10
February	8,080,495.62	71,878.62	8,152,374.24
March	8,958,297.65	75,492.82	9,033,790.47
April	8,223,392.01	68,176.73	8,291,568.74
May	8,279,896.42	70,600.92	8,350,497.34
June	9,116,776.57	69,522.38	9,186,298.95
July	8,132,187.21	67,660.09	8,199,847.30
August	9,932,820.53	52,361.60	9,985,182.13
September	8,038,170.50	72,356.71	8,110,527.21
October	8,326,157.20	71,174.09	8,397,331.29
November	7,951,338.75	64,561.24	8,015,899.99
December	10,045,046.22	62,369.02	10,107,415.24
	<u>\$ 103,181,624.94</u>	<u>\$ 822,429.06</u>	<u>\$ 104,004,054.00</u>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**TABLE I**  
December 31, 2016  
**CARROLLTON TURBIDITIES**

	River (NTU)					Effluent Settling Reservoirs (NTU)					Filters (NTU)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Maximum	159	281	277	273	271	7.3	9.3	12	6.9	14	0.35	0.25	0.24	0.21	0.31
Minimum	5	5	8	7	13	0.5	0.8	0.9	1.0	0.9	0.08	0.07	0.05	0.07	0.07
Average	34	70	75	71	63	2.0	2.8	2.7	2.3	2.9	0.12	0.11	0.11	0.10	0.13

**TABLE II**  
**CARROLLTON ALKALINITIES**  
PARTS PER MILLION

	River					Effluent Settling Reservoirs					Filters				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Maximum	154	139	146	160	201	146	127	140	160	205	168	144	157	190	230
Minimum	81	72	75	75	81	53	53	54	56	60	99	74	78	82	87
Average	122	101	109	116	130	110	89	93	105	118	135	115	120	128	146

**TABLE II A**  
**CARROLLTON HARDNESS**  
PARTS PER MILLION

	NON-CARBONATE HARDNESS										TOTAL HARDNESS									
	RIVER					FILTERS					RIVER					FILTERS				
	###	###	###	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	###	###
Maximum	104	86	74	90	86	109	93	101	81	102	214	188	211	233	272	242	206	225	245	304
Minimum	19	18	14	12	1	23	25	12	11	11	115	101	91	106	108	143	115	132	115	127
Average	43	40	46	43	40	55	49	57	51	48	164	141	155	159	169	190	164	177	178	197

**TABLE III**  
**CARROLLTON BACTERIAL CHARACTERISTICS**  
TOTAL COLIFORM ANALYSIS

2016	River	Plant Tap	Distribution System
Maximum (Colonies / 100 ml)	5,700	0	89
Minimum (Colonies / 100 ml)	140	0	0
Average (colonies / 100 ml)	690	0	0
Number of Samples	259	366	1,964
Number of Samples Negative	0	366	1,958
Number of Samples Positive	259	0	6*

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

SEWERAGE AND WATER BOARD OF NEW ORLEANS

TABLE IV-A

PRINCIPLE RESULTS OF OPERATION OF THE G3 CONVENTIONAL UNIT AT THE CARROLLTON WATER PURIFICATION PLANT FOR THE YEAR ENDING: December 31, 2016

1	2	3	4	5	6	7	8	9	10	11	12	13
Month		Total Million Gallons of Water Treated During Month	Amount of Water Treated Million Gallons Per 24 Hours	Total Pounds of Polymer used at Intake	Polymer at Intake Parts Per Million	Total Pounds of Polymer used in Plant	Polymer in Plant Parts Per Million	Total Pounds of Pure Iron (Fe) used During Month	Pure Iron (Fe) Parts Per Million	NTU Turbidity of River Water	PPM Alkalinity of River Water	NTU Turbidity of Unit Effluent
January	Max.		87.00			97,225	5.24	115,924	5.95	182	119	8.1
	Min.	2,532.52	75.38	0			4.39		5.25	48	83	2.2
	Avg.		81.69				4.60		5.49	90	94	4.4
February	Max.		83.67			86,219	4.89	103,221	5.86	115	115	9.8
	Min.	2,238.33	75.96	0			4.40		5.25	44	96	1.6
	Avg.		79.94				4.62		5.53	65	107	3.6
March	Max.		83.46			28,198	4.70	33,806	5.74	90	113	6.3
	Min.	1,028.34	0.00	0			0.00		0.00	44	81	2.1
	Avg.		33.17				1.37		1.64	68	96	3.5
April	Max.		79.79			35,326	4.92	42,321	5.68	86	135	9.0
	Min.	926.50	0.00	0			0.00		0.00	38	96	1.2
	Avg.		30.88				1.83		1.99	58	111	2.4
May	Max.		82.75			92,342	4.87	110,593	5.84	143	145	6.4
	Min.	2,435.96	73.75	0			4.37		5.23	38	109	1.0
	Avg.		78.58				4.55		5.45	78	121	2.1
June	Max.		94.00			91,705	5.17	109,856	6.24	152	154	3.1
	Min.	2,423.42	73.75	0			4.21		4.84	37	120	1.0
	Avg.		80.78				4.54		5.43	81	132	1.7
July	Max.		93.42			82,891	4.68		5.67	145	166	2.7
	Min.	2,664.92	81.21	0			3.37	99,139	4.00	25	104	0.9
	Avg.		85.97				3.72		4.45	59	138	1.6
August	Max.		87.13			78,465	4.35		5.52	271	154	3.4
	Min.	2,378.25	65.83	0			3.54	91,280	4.21	26	105	1.0
	Avg.		76.72				3.87		4.61	74	127	2.0
September	Max.		82.38			77,796	4.85		5.10	80	142	3.5
	Min.	2,253.96	72.50	0			4.02	92,230	4.67	24	120	1.1
	Avg.		75.13				4.14		4.91	50	127	2.3
October	Max.		85.58			85,149	4.52		5.39	130	175	4.6
	Min.	2,483.79	72.79	0			3.86	101,641	4.59	40	138	1.2
	Avg.		80.12				4.12		4.91	69	156	2.5
November	Max.		82.71			27,148	4.49		5.38	87	201	2.8
	Min.	798.13	0.00	0			0.00	32,424	0.00	13	155	1.8
	Avg.		26.60				1.36		1.62	27	175	2.2
December	Max.											
	Min.											
	Avg.											
Total		22,164.11				782,465		932,436				
General	Max.		94.00			97,225	5.24	115,924	6.24	271	201	9.8
	Min.		26.60			27,148	1.36	32,424	1.62	13	81	0.9
	Avg.		194.42			71,133	4.12	84,767	4.88	63	130	2.3

Note: G3 Basin in service from 1-1-16 to 3-10-16 and 4-18-16 to 11-10-16

SEWERAGE AND WATER BOARD OF NEW ORLEANS

TABLE IV-B

PRINCIPLE RESULTS OF OPERATION OF THE G4 CONVENTIONAL UNIT AT THE CARROLLTON WATER PURIFICATION PLANT FOR THE YEAR ENDING: December 31, 2016

1	2	3	4	5	6	7	8	9	10	11	12	13
Month		Total Million Gallons of Water Treated During Month	Amount of Water Treated Million Gallons Per 24 Hours	Total Pounds of Polymer used at Intake	Polymer at Intake Parts Per Million	Total Pounds of Polymer used in Plant	Polymer in Plant Parts Per Million	Total Pounds of Pure Iron (Fe) used During Month	Pure Iron (Fe) Parts Per Million	NTU Turbidity of River Water	PPM Alkalinity of River Water	NTU Turbidity of Unit Effluent
January	Max. Min. Avg.											
February	Max. Min. Avg.											
March	Max. Min. Avg.	1,251.03	81.20 0.00 10.54	0		64,282	4.74 0.00 0.46	75,170	5.54 0.00 0.54	90 44 68	113 81 96	14.0 1.6 5.2
April	Max. Min. Avg.	1,337.04	77.46 0.00 44.57	0		51,612	4.96 0.00 2.78	60,246	5.85 0.00 3.24	86 38 58	135 96 111	7.4 4.6 6.2
May	Max. Min. Avg.											
June	Max. Min. Avg.											
July	Max. Min. Avg.											
August	Max. Min. Avg.											
September	Max. Min. Avg.											
October	Max. Min. Avg.											
November	Max. Min. Avg.	1,476.33	82.83 0.00 49.28	0		49,319	4.22 0.00 2.67	57,221	4.90 0.00 3.10	87 13 27	201 155 175	8.2 1.9 4.1
December	Max. Min. Avg.	2,223.27	78.38 64.83 71.72	0		75,329	4.25 3.77 4.06	87,385	4.93 4.41 4.71	95 13 35	199 152 174	5.9 1.1 3.9
Total		6,289.68				240,543		280,022				
General	Max. Min. Avg.	2,223.27 1,251.03 1,572.42	82.83 10.54 108.44			75,329 49,319 60,136	4.96 0.46 3.55	87,385 57,221 70,005	5.85 0.54 4.14	271 13 63	201 81 130	14.0 1.1 4.7

Note: G4 Basin was in service from 3-10-16 to 4-17-16 and 11-10-2016 to 12-31-2016.

TABLE IV-C

PRINCIPLE RESULTS OF OPERATION OF THE L3 CONVENTIONAL UNIT AT THE CARROLLTON WATER PURIFICATION PLANT FOR THE YEAR ENDING: December 31, 2016

1	2	3	4	5	6	7	8	9	10	11	12	13
Month		Total Million Gallons of Water Treated During Month	Amount of Water Treated Million Gallons Per 24 Hours	Total Pounds of Polymer used at Intake	Polymer at Intake Parts Per Million	Total Pounds of Polymer used in Plant	Polymer in Plant Parts Per Million	Total Pounds of Pure Iron (Fe) used During Month	Pure Iron (Fe) Parts Per Million	NTU Turbidity of River Water	PPM Alkalinity of River Water	NTU Turbidity of Unit Effluent
January	Max. Min. Avg.											
February	Max. Min. Avg.											
March	Max. Min. Avg.											
April	Max. Min. Avg.											
May	Max. Min. Avg.											
June	Max. Min. Avg.											
July	Max. Min. Avg.											
August	Max. Min. Avg.											
September	Max. Min. Avg.											
October	Max. Min. Avg.											
November	Max. Min. Avg.											
December	Max. Min. Avg.											
Total												
General	Max. Min. Avg.											

Note: L3 Basin not in service in 2016

SEWERAGE AND WATER BOARD OF NEW ORLEANS

TABLE IV-D

PRINCIPLE RESULTS OF OPERATION OF THE L4 CONVENTIONAL UNIT AT THE CARROLLTON WATER PURIFICATION PLANT FOR THE YEAR ENDING: December 31, 2016

1	2	3	4	5	6	7	8	9	10	13	14	15
Month	Max. Min. Avg.	Total Million Gallons of Water Treated During Month	Amount of Water Treated Million Gallons Per 24 Hours	Total Pounds of Polymer used at Intake	Polymer at Intake Parts Per Million	Total Pounds of Polymer used in Plant	Polymer in Plant Parts Per Million	Total Pounds of Pure Iron (Fe) During Month	Pure Iron (Fe) Parts Per Million	NTU Turbidity of River Water	PPM Alkalinity of River Water	NTU Turbidity of Unit Effluent
January	58.17 40.71 40.8	1,556.54	58.17 40.71 50.21	0	52,906	4.95 3.57 4.08	59,759	5.56 4.02 4.61	182 48 90	119 83 94	10.0 2.3 4.8	
February	59.33 49.13 53.05	1,505.50	59.33 49.13 53.05	0	51,525	4.65 3.86 4.05	57,843	6.00 4.33 4.68	115 44 65	115 96 107	7.2 2.0 3.4	
March	62.96 47.79 52.11	1,615.42	62.96 47.79 52.11	0	57,275	6.97 3.77 4.16	62,778	6.00 4.24 4.63	90 44 68	113 81 96	6.5 2.3 3.3	
April	55.42 48.92 53.44	1,595.04	55.42 48.92 53.44	0	53,745	4.27 3.88 4.04	60,927	5.73 4.35 4.54	86 38 58	135 96 111	4.7 1.6 2.5	
May	56.33 40.17 48.30	1,497.29	56.33 40.17 48.30	0	52,034	5.12 3.81 4.17	58,475	5.75 4.27 4.69	143 38 78	145 109 121	3.9 1.1 2.1	
June	59.88 43.29 50.34	1,510.17	59.88 43.29 50.34	0	51,546	4.62 3.84 4.10	58,238	5.23 4.31 4.63	152 37 81	154 120 132	3.5 1.0 2.0	
July	60.38 47.71 53.25	1,650.71	60.38 47.71 53.25	0	44,232	4.24 2.81 3.21	49,798	4.77 3.17 3.61	145 25 59	166 104 138	3.2 1.2 1.8	
August	66.54 48.00 49.78	1,593.38	66.54 48.00 49.78	0	44,035	3.80 2.98 3.07	49,752	4.76 3.37 3.46	271 26 74	154 105 127	3.6 1.2 2.3	
September	62.54 43.21 55.39	1,619.83	62.54 43.21 55.39	0	48,499	4.80 3.41 3.58	54,382	5.39 3.81 4.02	80 24 50	142 120 127	3.1 2.1 2.1	
October	58.54 41.88 49.45	1,515.58	58.54 41.88 49.45	0	45,178	4.15 3.10 3.59	50,998	4.68 3.82 4.07	130 40 69	175 138 156	3.7 1.0 2.5	
November	69.25 45.33 57.61	1,728.21	69.25 45.33 57.61	0	49,848	3.72 3.21 3.46	56,102	4.32 3.61 3.90	87 13 27	201 155 175	7.7 1.4 2.7	
December	69.04 54.63 62.27	1,930.51	69.04 54.63 62.27	0	57,708	4.26 3.21 3.59	63,019	6.97 3.51 3.93	95 13 35	199 152 174	5.6 2.0 3.0	
Total		19,318.18			608,531		682,071					
General	Max. Min. Avg.	1,930.51 1,497.29 1,609.85	69.25 40.17 52.93		57,708 44,035 50,711	6.97 2.81 3.95	63,019 49,752 56,839	6.97 3.17 4.52	271 13 63	201 81 130	10.0 1.0 2.7	

Note: L4 Basin in service from 1/1/2016 through 12/31/2016



TABLE IV-E

MONTHLY SUMMARY OF COMBINED OPERATION OF CONVENTIONAL UNITS AT THE CARROLLTON WATER PURIFICATION PLANT FOR THE YEAR ENDING: December 31, 2016

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Month	Max. Min. Avg.	Total Million Gallons of Water Treated During Month	Amount of Water Treated Million Gallons Per 24 Hours	Total Pounds of Polymer used at Intake	Total Pounds of Polymer used in Plant	Total Pounds of Fluoride (100%) used During Month	Fluoride Parts Per Million	Total Pounds of Pure Iron (Fe) used During Month	Total Pounds of Lime Used During Month	Lime Parts per Million	Total Pounds of Chlorine Used During Month	Chlorine Parts Per Million	Total Pounds of Anhydrous Ammonia Used During Month	Ammonia Parts Per Million	Total Pounds of Polyphosphate Used During Month	Polyphosphate Parts Per Million	Alkalinity of Filtered Water Parts Per Million (OFE)	Estimated High Lift
																		M.G.D
January	Max. 138.21 Min. 120.46 Avg. 131.91	4,089.09	120.46	0	150,132	14,906	0.52 0.40 0.44	175,683	627,279	21.58 6.00 17.99	200,935	6.37 5.00 5.88	37,698	1.17 1.04 1.11	26,383	0.82 0.74 0.77	116	4,079.42
February	Max. 138.83 Min. 129.38 Avg. 133.71	3,743.84	129.38	0	137,744	13,446	0.43 0.39 0.41	161,065	562,967	20.66 18.74 18.03	172,205	5.83 5.34 5.52	33,634	1.14 1.02 1.08	24,167	0.81 0.74 0.77	130	3,940.71
March	Max. 213.83 Min. 126.54 Avg. 134.35	4,165.18	126.54	0	149,754	14,992	0.44 0.40 0.41	171,754	551,173	18.66 10.31 15.97	177,462	6.00 3.28 5.18	36,910	0.62 0.62 0.75	25,968	0.81 0.47 0.75	127	4,237.04
April	Max. 134.50 Min. 122.88 Avg. 128.62	3,858.60	122.88	0	140,683	14,212	0.44 0.39 0.42	163,494	597,074	20.48 15.98 18.54	165,497	5.43 4.94 5.14	37,962	1.25 0.99 1.18	24,811	0.83 0.74 0.77	127	4,051.33
May	Max. 131.08 Min. 121.54 Avg. 126.88	3,933.25	121.54	0	144,376	14,798	0.41 0.43 0.43	169,068	616,070	22.45 12.75 18.79	166,724	5.59 4.88 5.08	38,255	0.93 0.93 1.17	25,291	0.85 0.74 0.77	135	4,136.42
June	Max. 145.88 Min. 121.17 Avg. 131.12	3,933.61	121.17	0	143,251	14,438	0.47 0.40 0.43	168,094	698,327	25.11 17.39 21.28	174,528	6.05 4.98 5.32	40,390	1.41 1.13 1.23	25,101	0.86 0.74 0.77	102	4,009.21
July	Max. 148.63 Min. 130.71 Avg. 139.21	4,315.66	130.71	0	127,123	15,079	0.46 0.40 0.43	148,937	736,202	24.76 17.90 20.44	202,490	5.98 5.43 5.63	46,763	1.38 1.26 1.30	26,902	0.81 0.70 0.75	142	4,239.00
August	Max. 137.00 Min. 120.88 Avg. 126.12	3,971.62	120.88	0	122,500	15,075	0.49 0.40 0.44	141,032	645,618	20.62 17.16 19.48	199,633	6.60 5.20 6.03	46,773	1.56 1.30 1.41	24,376	1.23 0.70 0.79	128	4,139.96
September	Max. 135.25 Min. 121.46 Avg. 129.13	3,873.82	121.46	0	126,296	13,273	0.49 0.24 0.42	146,611	577,248	19.13 11.89 17.87	196,780	5.77 6.09	45,323	1.25 1.40	24,709	0.65 0.77	108	3,813.96
October	Max. 135.63 Min. 123.67 Avg. 129.01	3,999.43	123.67	0	130,327	14,454	0.48 0.42 0.46	152,639	660,335	23.74 15.30 19.78	202,685	6.60 5.77 6.06	47,560	1.58 1.32 1.43	25,263	0.84 0.70 0.77	148	3,805.04
November	Max. 148.17 Min. 126.08 Avg. 133.49	4,004.67	126.08	0	126,316	14,538	0.51 0.41 0.46	145,747	717,414	24.18 13.81 21.48	175,993	6.34 4.54 5.28	42,512	1.52 1.14 1.27	24,818	0.86 0.62 0.74	157	3,823.29
December	Max. 143.00 Min. 125.86 Avg. 133.99	4,153.79	125.86	0	133,037	14,808	0.48 0.31 0.45	150,404	752,779	24.54 16.31 21.78	172,505	5.20 4.66 4.97	41,613	1.28 1.06 1.20	25,598	0.82 0.47 0.74	146	3,976.50
Total	Max. 48,042.56 Min. 4,315.66 Avg. 3,743.84	48,042.56	126.54	0	1,631,538	174,020	0.52 0.40 0.44	1,894,528	7,742,486	21.58 17.99 18.03	2,207,437	6.37 5.00 5.88	495,393	1.17 1.04 1.11	303,388	0.82 0.74 0.77	116	48,252.9
General	Max. 131.52 Min. 120.46 Avg. 126.88	4,003.55	126.88	0	135,962	14,502	0.43 0.24 0.43	157,877	645,207	19.32 6.00 19.32	183,953	5.51 3.28 5.51	41,283	1.24 0.62 1.24	25,282	0.76 0.47 0.76	120	4,021.07
	Max. 145.67 Min. 115.63 Avg. 126.27	4,003.55	126.27	0	135,962	14,502	0.43 0.24 0.43	157,877	645,207	19.32 6.00 19.32	183,953	5.51 3.28 5.51	41,283	1.24 0.62 1.24	25,282	0.76 0.47 0.76	120	4,021.07

SEWERAGE AND WATER BOARD OF NEW ORLEANS

TABLE V

PRINCIPLE RESULTS OF OPERATION OF THE ALGIERS WATER PURIFICATION PLANT FOR THE YEAR ENDING: December 31, 2016

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Month	Max. Min. Avg.	Total Million Gallons of Water Treated During Month	Amount of Water Treated Million Gallons Per 24 Hours	Total Pounds of Polyelec- trolyte Used During Month	Polyelec- trolyte Parts Per Million	Total Pounds of Fluoride (100%) Used During Month	Fluoride Parts Per Million	Total Pounds of Pure Iron (Fe) used During Month	Pure Iron (Fe) Parts Per Million	Total Pounds of Lime Used During Month	Lime Parts Per Million	Total Pounds of Anhydrous Ammonia Used During Month	Anhydrous Ammonia Parts Per Million	Total Pounds Chlorine Used During Month	Chlorine Parts Per Million	Total Pounds Polyphos- phate Used During Month	Polyphos- phate Parts Per Million	NTU Turbidity of Clarifier Effluent	PPM Clear Well Alkalinity of Filter Effluent	Total M.G.D.	High Lift Pumpage M.G.D.
January	Max. 11.00 Min. 9.00 Avg. 10.06	311.99	9.00	10,794	4.53	1,478	0.60	15,140	7.33	65,067	38.28	2,720	1.20	16,818	7.76	2,066	0.89	0.7	59	294.11	10.41
February	Max. 11.00 Min. 9.00 Avg. 10.04	291.08	9.00	10,351	4.94	1,384	0.63	13,860	6.30	77,743	38.27	2,106	0.92	12,287	5.19	1,799	0.89	0.3	60	270.23	10.26
March	Max. 11.00 Min. 9.00 Avg. 9.55	296.09	9.00	10,384	4.64	1,419	0.56	15,180	7.33	78,772	46.51	2,260	1.03	12,652	6.20	1,867	0.89	0.7	53	272.35	9.74
April	Max. 11.00 Min. 9.00 Avg. 9.04	270.00	9.00	9,090	4.04	1,320	0.59	13,750	7.33	83,072	45.08	2,383	1.28	11,003	5.53	1,767	0.89	0.4	57	244.48	9.10
May	Max. 11.00 Min. 9.00 Avg. 9.19	284.83	9.00	9,736	4.53	1,388	0.57	15,032	7.44	105,332	39.97	2,783	1.31	12,734	5.98	1,900	0.89	0.5	50	250.76	9.69
June	Max. 12.00 Min. 8.00 Avg. 9.29	278.61	8.00	10,295	4.84	1,467	0.74	14,685	7.33	125,301	44.95	3,209	1.19	17,266	5.70	1,933	1.26	0.3	55	255.55	10.35
July	Max. 11.00 Min. 8.00 Avg. 9.34	289.65	8.00	10,969	4.59	1,237	0.63	14,190	7.22	136,832	70.14	3,080	1.57	18,411	6.75	1,867	1.00	1.1	45	281.54	10.27
August	Max. 11.00 Min. 8.00 Avg. 9.29	288.05	8.00	10,896	4.58	1,505	0.64	14,960	7.87	111,449	60.07	3,252	1.72	19,611	10.51	1,716	0.99	0.5	55	279.69	10.14
September	Max. 17.25 Min. 8.00 Avg. 9.40	282.02	8.00	10,649	4.43	1,481	0.60	14,966	8.24	97,997	50.07	2,955	1.57	17,814	9.63	1,900	1.00	0.9	59	280.29	14.29
October	Max. 13.00 Min. 8.00 Avg. 9.76	302.66	8.00	11,413	4.50	1,614	0.52	13,420	6.42	137,486	62.18	3,059	1.68	15,807	9.76	1,800	0.95	1.0	63	280.43	12.07
November	Max. 12.00 Min. 8.67 Avg. 10.19	305.82	8.67	11,530	4.56	1,600	0.65	13,750	6.60	171,736	84.69	2,744	1.21	12,604	6.21	2,000	1.13	1.0	77	291.09	10.74
December	Max. 12.33 Min. 10.00 Avg. 10.49	325.17	10.00	12,345	5.23	1,630	0.66	14,630	6.60	142,810	65.05	2,310	1.14	13,703	5.82	2,000	0.80	0.4	93	297.86	10.34
Total		3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
General	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.66	3,525.87	10.49	128,452	4.55	17,523	0.60	179,563	5.38	1,333,597	52.64	32,861	0.85	180,710	5.05	22,615				3,308.38	
	Max. 17.25 Min. 8.00 Avg. 9.																				

SEWERAGE AND WATER BOARD OF NEW ORLEANS

TABLE VI-A

MONTHLY SUMMARY OF CARROLLTON WATER PURIFICATION PLANT FILTER OPERATIONS  
FOR THE YEAR ENDING: December 31, 2016

1 Month	2		3		4		5		6		7		8		9		10		11	
	Max.	Min.	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New
January	1,347.250	2,613.982	64	80	263	167	32,875	51,875	3,007	5,822	19,200	48,100	0.300	0.601	3.38	3.84	91,524	96,607		
February	1,546.875	2,475.975	75	72	167	165	20,875	51,562	3,000	6,549	22,200	43,200	0.296	0.600	4.23	2.59	91,320	107,182		
March	1,627.250	2,602.721	78	62	191	221	23,875	67,501	2,993	6,269	21,600	37,200	0.277	0.600	1.55	2.48	91,110	104,029		
April	1,483.125	2,576.615	71	76	169	169	21,125	52,500	3,002	5,991	21,300	47,500	0.300	0.625	1.43	5.00	91,380	99,414		
May	1,556.500	2,636.761	78	76	167	190	21,125	57,415	2,922	6,106	23,400	45,600	0.300	0.600	1.68	2.83	88,948	101,322		
June	1,529.625	2,022.891	73	68	144	99	17,875	21,192	2,978	5,198	21,977	40,800	0.301	0.600	1.42	1.14	90,646	86,256		
July	1,556.834	2,740.876	76	70	221	187	27,000	54,375	3,120	6,089	31,200	42,000	0.411	0.600	2.78	2.46	94,978	101,034		
August	1,667.080	2,397.145	81	74	191	358	23,875	62,417	2,958	5,108	24,300	47,000	0.300	0.635	2.25	3.50	90,055	84,755		
September	1,543.252	2,234.863	78	66	169	238	20,875	49,042	2,872	4,900	23,100	39,600	0.296	0.600	2.12	2.45	87,412	81,313		
October	1,414.750	2,322.828	77	76	193	194	26,500	43,541	2,836	4,808	21,100	45,600	0.274	0.600	2.02	2.58	86,331	79,776		
November	1,450.811	2,324.973	73	72	175	212	26,841	43,313	2,859	4,850	21,600	43,200	0.296	0.600	1.49	1.86	87,034	80,480		
December	1,489.961	2,490.130	75	66	231	259	29,125	67,605	3,104	4,951	23,700	38,400	0.316	0.582	1.08	0.86	94,497	82,150		
Total	18,213.313	29,439.760	899	858	5,883	5,569	704,862	1,327,152	35,851	66,641	274,677	518,200	3,667	7,243	68.19	69.95	1,085,235	1,104,318		
General	1,667.080	2,740.876	81	80	263	358	32,875	67,605	3,120	6,549	31,200	48,100	0.411	0.635	10.99	5.00	94,978	107,182		
	1,347.250	2,022.891	64	62	23	25	2,875	12,505	2,836	4,908	19,200	37,200	0.274	0.582	0.90	0.86	86,331	79,776		
	1,517.776	2,453.313	75	72	164	150	20,260	34,312	2,971	5,553	22,890	43,183	0.306	0.604	1.51	1.76	90,436	92,027		

SEWERAGE AND WATER BOARD OF NEW ORLEANS

TABLE VI-B

MONTHLY SUMMARY OF ALGIERS FILTER OPERATIONS FOR THE YEAR ENDING: December 31, 2016

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.	289.74	48	193	7.866	0.87	5.47	2.48	
	Min.			141	4.588			1.45	
	Avg.			167	6.036			1.89	
February	Max.	301.78	51	167	8.669	0.85	6.14	2.65	
	Min.			167	4.538			1.39	
	Avg.			167	5.917			2.04	
March	Max.	329.35	57	167	7.399	0.83	6.35	2.92	
	Min.			167	3.812			1.51	
	Avg.			167	5.778			1.93	
April	Max.	260.67	49	167	6.105	0.78	6.11	7.91	
	Min.			47	1.577			2.04	
	Avg.			164	5.319			2.35	
May	Max.	293.40	54	167	5.963	0.78	5.44	2.47	
	Min.			167	4.088			1.69	
	Avg.			167	5.433			1.86	
June	Max.	307.40	51	167	7.740	0.87	6.54	3.76	
	Min.			167	3.412			1.66	
	Avg.			167	6.028			2.13	
July	Max.	271.66	49	167	7.900	0.81	6.13	34.84	
	Min.			23	0.359			1.58	
	Avg.			164	5.544			2.26	
August	Max.	328.11	57	167	7.849	0.83	7.42	2.89	
	Min.			167	4.507			1.66	
	Avg.			167	5.756			2.26	
September	Max.	294.82	48	191	7.815	0.83	5.38	2.62	
	Min.			143	4.278			1.44	
	Avg.			177	6.142			1.83	
October	Max.	300.25	51	167	8.208	0.85	5.57	2.90	
	Min.			167	3.774			1.33	
	Avg.			167	5.887			1.86	
November	Max.	352.01	54	167	7.486	0.94	6.02	2.37	
	Min.			167	4.700			1.49	
	Avg.			167	6.519			1.71	
December	Max.	321.47	51	191	8.668	0.85	5.56	2.24	
	Min.			143	4.873			1.26	
	Avg.			177	6.303			1.73	
Total	3650.64	620.00	5762.00	206.84	10.08	72.14	1.39	112.40	
General	Max.	352.01	57	193.00	8.67	0.94	7.42	34.84	
	Min.			23.00	0.36			1.26	
	Avg.			168.17	5.89			1.98	

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

**TABLE VII**  
December 31, 2015  
**FIVE YEAR ANALYSIS COMPOSITE DATA (2012 - 2016) 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	72	116	210	78	127
Total Hardness (ppm as CaCO <sub>3</sub> )	272	91	158	300	116	179
Noncarbonate Hardness (ppm as CaCO <sub>3</sub> )	104	12	42	104	8	53
Calcium Hardness (ppm as CaCO <sub>3</sub> )	167	40	103	200	88	125
Magnesium Hardness (ppm as CaCO <sub>3</sub> )	118	10	55	151	5	54
Nephelometric Turbidity (NTU)	281	4.9	63	0.28	0.06	0.11
pH	8.47	7.00	7.70	9.42	7.76	8.85
Chloride (ppm)	63	14	30	65	19	34
Fluoride (ppm)	0.65	0.08	0.26	1.06	0.26	0.72
Total Dissolved Solids (ppm)	445	146	255	526	137	295
Total Suspended Solids (ppm)	396	7	88	-----	-----	-----
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	0.2	3.2
Ammonia (ppm as N)	-----	-----	-----	0.61	0.01	0.15
Nitrate + Nitrite (ppm as N) *	-----	-----	-----	3	1	2
Sulfate (ppm) *	-----	-----	-----	69	35	50
Conductivity (µS/cm)	682	230	415	700	244	468
Temperature (°F)	89	37	66	91	44	74
Aluminum (ppm) *	-----	-----	-----	0.01	0.00	0.08
Antimony (ppm) *	-----	-----	-----	0.002	0.000	0.000
Arsenic (ppm) *	-----	-----	-----	0.001	0.000	0.000
Barium (ppm) *	-----	-----	-----	0.47	0.000	0.018
Beryllium (ppm) *	-----	-----	-----	0.000	0.000	0.000
Cadmium (ppm) *	-----	-----	-----	0.000	0.000	0.000
Chromium (ppm) *	-----	-----	-----	0.00	0.00	0.00
Copper (ppm) *	-----	-----	-----	0.2	0.0	0.1
Iron (ppm) *	-----	-----	-----	0.05	0.00	0.01
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) *	-----	-----	-----	0.00	0.00	0.00
Silver (ppm) *	-----	-----	-----	0.00	0.00	0.00
Thallium (ppm) *	-----	-----	-----	0.000	0.000	0.000
Zinc (ppm) *	-----	-----	-----	0	0	0
Potassium (ppm) *	-----	-----	-----	3.6	2.8	3.2
Sodium (ppm) *	-----	-----	-----	34	18	25
Cyanide (ppb) *	-----	-----	-----	0.0	0.0	0.0
Haloacetic Acids (HAA5) (ppb)	-----	-----	-----	43.4	6.1	18.0
Total Organic Carbon (ppm)	4.7	2.9	3.7	3.7	1.9	2.7
Total Trihalomethanes (ppb)	25.7	0.0	0.0	85.1	6.8	22.0
1,2-Dichloroethane (ppb)	0.0	0.0	0.0	0.6	0.0	0.0
Chloroform (ppb)	25.7	0.0	0.0	62.1	5.2	13.7
Carbon Tetrachloride (ppb)	3.1	0.0	0.0	0.0	0.0	0.0
Bromodichloromethane (ppb)	0.0	0.0	0.0	19.1	0.0	5.6
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	630	89	0	0
Fecal Coliforms (CFUs/100 ml)	350	0	50	0	0	0

The results for constituents indicated with asterisks are from the Louisiana Department of Health and Hospitals.

Total Organic Carbon and Haloacetic Acid results are from a DHH 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 Fecal Coliform testing.

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

**TABLE VIII**  
December 31, 2015

## CARROLLTON OPERATION

CHEMICAL	CHEMICAL COST	CHEMICAL COST PER MILLION GALLONS
Lime	\$657,097.83	\$13.68
Ferric Coagulant	\$1,282,595.75	\$26.70
Chlorine & Sodium Hypochlorite	\$977,476.17	\$20.35
Sodium Polyphosphate	\$109,067.95	\$2.27
Polyelectrolyte	\$337,728.42	\$7.03
Fluoride	\$183,103.53	\$3.81
Ammonia	\$287,327.72	\$5.98
Carbon	\$0.00	\$0.00
<b>TOTAL CHEMICALS</b>	<b>\$3,834,397.36</b>	<b>\$79.81</b>

Purification Plant Operating Cost:

Total Water Treated in 2016:

48,042,560,000 Gallons

## TOTAL COST PER MILLION GALLONS

YEAR	TOTAL WATER TREATED IN MILLION GALLONS	OPERATING COST	TOTAL COST PER MILLION GALLONS
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
2013	50,240.70	\$8,119,447	\$169.71
2012	50,870.78	\$8,294,045	\$165.09

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

**TABLE IX**  
December 31, 2016  
**ALGIERS OPERATION**

CHEMICAL	CHEMICAL COST	CHEMICAL COST PER MILLION GALLONS
Lime	\$113,396.50	\$32.16
Ferric Coagulant	\$121,431.35	\$34.44
Sodium Hypochlorite	\$80,506.05	\$22.83
Sodium Polyphosphate	\$33,922.50	\$9.62
Polyelectrolyte	\$27,420.70	\$7.78
Fluoride (100%)	\$18,437.66	\$5.23
Ammonia	\$23,331.31	\$6.62
Carbon	\$0.00	\$0.00
<b>TOTAL CHEMICALS</b>	<b>\$418,446.07</b>	<b>\$118.68</b>

Purification Plant Operating Cost:  
Total Water Treated in 2016:

3,525,870,000 Gallons

## TOTAL COST PER MILLION GALLONS

YEAR	TOTAL WATER TREATED IN MILLION GALLONS	OPERATING COST	TOTAL COST PER MILLION GALLONS
2016	3,525.87	\$1,678,026.00	\$475.92
2015	3,684.57	\$1,952,339.00	\$529.87
2014	3,807.99	\$1,835,436.00	\$482.00
2013	4,115.36	\$1,967,690.00	\$478.13
2012	4,227.86	\$2,061,032.00	\$487.49
2011	4,280.60	\$1,834,511.00	\$428.56

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## TABLE X

December 31, 2016

### SLUDGE REMOVED FROM THE "G" BASINS PRIMARY TREATMENT UNITS DOOR MONORAKE CONVENTIONAL SYSTEM 2016

Total Million Gallons Water Treated	28,453.79
Total Tons Dry Sludge Deposited in Basins Including suspended and Dissolved Solids Removed and Reacting Chemicals	13,950
Total Million Gallons Wet Sludge Withdrawn from Basins	1,037.11
Average Percent solids in Wet Sludge	0.32
Total Million Gallons Water Used in withdrawing Sludge	1,035.72
Percent of Total Water Treated Used in Withdrawing Wet Sludge	3.64

## TABLE X-A

### SLUDGE REMOVED FROM THE "L" BASINS PRIMARY TREATMENT UNITS DOOR MONORAKE CONVENTIONAL SYSTEM 2016

Total Million Gallons Water Treated	19,318.18
Total Tons Dry Sludge Deposited in Basins Including suspended and Dissolved Solids Removed and Reacting Chemicals	8,765
Total Million Gallons Wet Sludge Withdrawn from Basins	267.86
Average Percent solids in Wet Sludge	0.78
Total Million Gallons Water Used in withdrawing Sludge	266.98
Percent of Total Water Treated Used in Withdrawing Wet Sludge	1.39



# SEWERAGE AND WATER BOARD OF NEW ORLEANS

**TABLE XI**  
December 31, 2016  
**2016 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> )	201	81	130	210	84	142
Total Hardness (ppm as CaCO <sub>3</sub> )	272	108	169	300	116	190
Noncarbonate Hardness (ppm as CaCO <sub>3</sub> )	86	12	40	104	14	48
Calcium Hardness (ppm as CaCO <sub>3</sub> )	167	40	107	200	90	129
Magnesium Hardness (ppm as CaCO <sub>3</sub> )	118	22	62	151	14	61
Nephelometric Turbidity (NTU)	271	13	63	0.28	0.07	0.11
pH	8.18	7.31	7.76	9.31	7.76	8.86
Chloride (ppm)	50	14	28	48	19	32
Fluoride (ppm)	0.31	0.13	0.21	0.92	0.26	0.71
Free Chlorine Residual (ppm as Cl <sub>2</sub> )	-----	-----	-----	0.4	0.1	0.2
Total Chlorine Residual (ppm as Cl <sub>2</sub> )	-----	-----	-----	5.0	0.5	3.4
Ammonia (ppm as N)	-----	-----	-----	0.36	0.02	0.14
Nitrate + Nitrite (ppm as N) *	-----	-----	-----	1.7	1.7	1.7
Sulfate (ppm) *	-----	-----	-----	34.6	34.6	34.6
Conductivity (µS/cm)	682	238	427	700	244	476
Temperature (°F)	87	42	67	91	52	75
Antimony (ppm) *	-----	-----	-----	0.0	0.0	0.0
Arsenic (ppm) *	-----	-----	-----	0.0	0.0	0.0
Barium (ppm) *	-----	-----	-----	0.047	0.046	0.047
Beryllium (ppm) *	-----	-----	-----	0.0	0.0	0.0
Cadmium (ppm) *	-----	-----	-----	0.0	0.0	0.0
Chromium (ppm) *	-----	-----	-----	0.0	0.0	0.0
Copper (ppm) *	-----	-----	-----	0.2	0.0	0.1
Iron (ppm) *	-----	-----	-----	0.0	0.0	0.0
Lead (ppm) *	-----	-----	-----	0.021	0.000	0.004
Manganese (ppm) *	-----	-----	-----	0.0	0.0	0.0
Mercury (ppm) *	-----	-----	-----	0.0	0.0	0.0
Nickel (ppm) *	-----	-----	-----	0.0	0.0	0.0
Selenium (ppm) *	-----	-----	-----	0.0	0.0	0.0
Silver (ppm) *	-----	-----	-----	0.0	0.0	0.0
Thallium (ppm) *	-----	-----	-----	0.0	0.0	0.0
Zinc (ppm) *	-----	-----	-----	0.0	0.0	0.0
Sodium (ppm) *	-----	-----	-----	17.8	17.5	17.7
Cyanide (ppb) *	-----	-----	-----	0.0	0.0	0.0
Haloacetic Acids (HAA5) (ppb)	-----	-----	-----	29.1	6.1	18.1
Total Organic Carbon (ppm)	4.2	2.9	3.6	3.5	2.0	2.8
Total Trihalomethanes (ppb)	0.0	0.0	0.0	49.6	11.9	24.1
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	7.5	16.5
Carbon Tetrachloride (ppb)	0.0	0.0	0.0	0.0	0.0	0.0
Bromodichloromethane (ppb)	0.0	0.0	0.0	19.1	1.6	6.4
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)	5700	140	690	89	0	0
E. coli (CFUs/100 ml)	350	5	90	0	0	0

The results for constituents indicated with asterisks are from the Louisiana Department of Health and Hospitals. Total Organic Carbon and Haloacetic Acid results are from a DHH 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 Fecal Coliform testing.

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

**TABLE XII**  
December 31, 2016  
**EXTRACTS FROM TABLES IV-E AND V**

**20 Year Period, 1997 to 2016 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.
1997	156.53	112.70	128.73	18.83	9.58	12.06
1998	152.96	98.48	126.86	22.96	12.00	12.36
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

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## TABLE XIII

December 31, 2016

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

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
January	52	50	50	41	43	48	47	42	43	47
February	47	53	46	41	43	48	47	40	45	46
March	56	55	51	48	51	57	49	46	45	54
April	63	63	58	62	61	69	57	59	61	62
May	71	68	69	71	68	74	66	69	70	70
June	79	77	79	81	80	81	76	79	79	79
July	82	80	85	85	84	85	81	83	84	86
August	85	82	84	86	87	87	83	84	85	85
September	82	78	81	83	80	82	83	83	83	84
October	75	71	70	72	72	72	76	72	74	75
November	63	63	59	61	62	60	62	59	65	66
December	58	55	49	50	50	55	48	49	54	53
Maximum	89	85	86	89	90	89	86	86	87	87
Minimum	40	42	42	37	40	46	45	37	39	42
Average	68	66	65	65	65	68	65	64	66	67

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

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## TABLE XIV

December 31, 2016

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

	2012	2013	2014	2015	2016
January	64	65	62	62	57
February	65	66	61	62	59
March	69	66	66	66	66
April	74	69	72	73	72
May	77	73	77	76	77
June	82	81	80	80	83
July	84	81	83	83	88
August	79	81	84	82	87
September	78	84	84	80	86
October	73	78	79	76	81
November	69	72	69	70	74
December	68	64	65	64	66
Maxiumum	89	91	89	86	91
Minimum	51	49	44	55	52
Average	73	73	74	73	75

Five Year Period

Maximum:        91  
 Minimum:        44  
 Average:         74

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**New Orleans East Bank Sewerage Treatment Plant**  
**2016 Yearly Summary**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2016
<b>Plant EF Flow (MGD)</b>													
Average	108,035	88,7	103,1	119,003	94,971	98,883	90,832	110,529	97,321	74,987	79,9	91,361	96
Maximum	79.3	152.23	178.6	191	187.6	152.8	130.2	169.1	148.9	83.1	142.4	156.5	191
<b>INFLUENT BOD (mg/L)</b>													
Average	130.6	110	85	70	91.2	62.7	91.7	83.4	89.1	113.9	105.5	99.4	94
Maximum	281	150	126	112	224	92	125	140	126	161	146	138	281
<b>INFLUENT TSS (mg/L)</b>													
Average	226.2	126.6	99.1	90.5	108	106.9	159.4	151.2	152.2	155	164.8	158.9	142
Maximum	621	227	169	179	171	170	271	301	224	237	414	331	621
<b>INFLUENT BOD (lbs/day)</b>													
Average	116,994	78,864	61,868	68,363	69,027	49,416	70,410	71,695	70,351	68,472	70,657	72,514	72,386
Maximum	255,446	109,996	83,694	146,291	149,266	70,510	117,931	124,933	141,653	97,598	117,244	134,427	255,446
<b>INFLUENT TSS (lbs/day)</b>													
Average	206,132	92,730	74,993	92,069	84,722	85,782	124,063	131,727	123,947	93,380	116,501	119,015	112,088
Maximum	564,526	223,020	144,949	241,451	142,577	129,103	223,662	268,028	59,543	140,337	429,894	322,431	564,526
<b>EFFLUENT BOD (mg/L)</b>													
Average	15	18.2	18.5	13.1	13.3	13.6	17.5	12.9	11.9	16.2	20.3	21.6	16.0
Weekly Maximum	33	29	33	36	30	50	34	25	19	43	34	51	51.0
<b>EFFLUENT TSS (mg/L)</b>													
Average	8.4	11.9	12.9	12.4	11.4	11	10.3	12.2	8.2	8.1	13.1	12.3	11.0
Weekly Maximum	24	21	38	57	41	70	24	37	42	18	22	34	70.0
<b>EFFLUENT BOD (lbs/day)</b>													
Average	13,440	13,463	15,967	13,574	10,582	11,596	13,540	12,347	9,610	10,070	13,833	16,915	12,911
Weekly Maximum	40,539	29,844	36,357	57,346	26,798	36,066	28,816	31,254	17,386	26,753	39,755	57,634	57,634
<b>EFFLUENT TSS (lbs/day)</b>													
Average	7,753	8,766	12,019	14,112	9,246	9,419	8,033	12,464	7,305	5,045	9,030	10,246	9,453
Weekly Maximum	30,404	22,383	54,732	90,798	37,887	50,382	18,460	46,256	52,157	11,199	23,752	38,422	90,798
<b>EFFLUENT CL2 (mg/L)</b>													
Average	0.49	0.47	0.49	0.48	0.49	0.49	0.49	0.5	0.5	0.5	0.5	0.5	0.49
Maximum	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.50
<b>EFFLUENT COLIFORM (col/100-ml)</b>													
Average (Geo)	2.25	2.09	2.49	2.30	2.93	2.78	2.35	2.51	2.24	4.03	5.24	5	3
Weekly Maximum (Geo)	2.69	2.25	3.35	2.89	3.8	6.65	3.04	4.04	2.67	7.89	10.88	7.82	11
<b>EFFLUENT pH (su)</b>													
Minimum	6.74	6.76	6.76	6.79	6.82	6.78	6.81	6.82	6.83	6.82	6.88	6.81	6.74
Maximum	6.93	6.84	6.84	6.94	7.03	6.90	6.86	7.2	6.92	6.95	7.11	7.2	7.20
<b>DISPOSED SLUDGE (dry tons)</b>													
Average per day	27.64	30.89	30.57	25.7	28.14	27.97	31.15	26.46	34.65	32.57	22.4	35.43	29.46
Total	746.16	772.19	825.46	591.1	703.59	783.16	616.34	529.25	727.74	651.44	335.35	566.84	7,849
<b>ELECTRICITY (kwhr)</b>													
Average per day	79,865	70,723	72,053	77,406	75,507	79,665	72,427	74,787	74,697	68,320	67,972	68,465	73,474
Total (kwhr)	2,469,601	2,192,401	2,161,601	2,389,601	2,265,201	2,469,601	2,172,802	2,318,401	2,315,601	2,049,602	1,971,201	2,122,402	26,908,015
<b>RAINFALL (inches) East Bank</b>													
TOTAL	4.74	3.80	7.47	12.94	4.95	9.78	7.39	11.87	5.19	0.16	2.73	6.13	77.15

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**New Orleans West Bank Sewerage Treatment Plant  
2016 Yearly Summary**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2016
<b>Plant Eff Flow (MGD)</b>													
Average	13.2	9.147	11.272	12.863	10.109	12.482	10.221	13.009	9.072	5.09	7.112	10.35	10.32
Maximum	21.72	19.470	28.470	28.46	31.01	23.6	27.96	33.940	21.46	6.25	16.43	21.90	33.94
<b>Plant INF Flow (MGD)</b>													
Average	12.084	8.439	10.308	11.243	9.488	12.639	10.144	12.841	9.334	6.985	7.627	10.92	10.19
Maximum	19.45	17.350	25.180	25.29	22.63	23.6	27.96	31.530	19.85	7.48	18.38	24.08	31.53
<b>INFLUENT BOD (mg/L)</b>													
Average	192	179.9	180.2	242	239.7	289.6	381.6	478.5	292.1	336	351.2	457.3	301.68
Maximum	407	334	414	567	389	443	693	733	639	684	564	705	733
<b>INFLUENT TSS (mg/L)</b>													
Average	286.8	217.8	228.9	301.9	332.3	408.9	449.2	494.1	340.6	408.7	420.1	489.4	365.73
Maximum	992	367	656	843	592	1010	930	2074	773	738	885	1064	2,074
<b>INFLUENT BOD (lbs/day)</b>													
Average	18,421	13,116	14,639	21,415	19,063	29,970	33,702	46,973	20,251	19,558	24,889	47,633	25,802
Maximum	42,362	34,004	38,640	78,324	45,674	57,224	90,010	108,089	54,369	38,563	67,828	122,705	122,705
<b>INFLUENT TSS (lbs/day)</b>													
Average	27,640	15,886	19,813	26,464	27,215	43,578	38,811	48,749	21,905	23,834	30,039	53,250	31,432
Maximum	103,251	41,818	70,560	79,872	68,699	142,356	98,969	155,317	46,804	43,700	93,813	156,051	158,051
<b>EFFLUENT BOD (mg/L)</b>													
Average	7.5	8.6	9.3	8.9	8.6	6.9	9	5.7	6	6.8	9.4	10.3	8.08
Weekly Maximum	10	12	18	17	13	11	17	13	8	10	21	23	23
<b>EFFLUENT TSS (mg/L)</b>													
Average	11.8	11.5	12.5	14.7	14.9	17.8	17.5	12.5	10.2	10.5	10.8	12	13.06
Weekly Maximum	19	24	31	35	32	32	27	22	16	13	22	26	35
<b>EFFLUENT BOD (lbs/day)</b>													
Average	782	680	865	969	754	720	752	574	479	284	606	1,027	707.63
Weekly Maximum	1,477	1,786	4,274	3,873	3,104	1,575	2,332	1,460	1,218	459	2,604	3,653	4,274
<b>EFFLUENT TSS (lbs/day)</b>													
Average	1,258	959	1,233	1,751	1,459	1,966	1,483	1,322	862	441	701	1,266	1,225.19
Weekly Maximum	2,898	3,897	7,361	7,975	8,276	5,087	5,130	3,962	2,864	596	3,015	4,749	8,276
<b>EFFLUENT CL2 (mg/L)</b>													
Average	1.16	1.29	1.14	1.15	1.06	1.05	1.01	1	1.1	1.13	1.13	1.05	1.11
Maximum	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.40
<b>EFFLUENT COLIFORM (col/100-ml)</b>													
Average (Geo)	2.13	2	2.35	2.48	2.77	5.63	4.37	4.48	2.33	2.71	2.45	2.92	3.05
Weekly Maximum (Geo)	5	2	2.88	3.17	3.63	31.4	8.11	33.31	2.21	5.53	4.16	8	33.31
<b>EFFLUENT pH (su)</b>													
Minimum	7.59	7.41	7.38	7.36	7.25	7.27	7.14	7.33	7.21	6.95	7.22	7.6	6.95
Maximum	7.92	7.74	7.72	7.72	7.53	7.57	7.54	7.94	7.8	7.14	7.54	7.87	7.94
<b>DISPOSED SLUDGE (dry tons)</b>													
Average per day	10.7	8.78	5.41	6.49	3.31	6.99	3.63	0	0	0	0	0	4
Total	256.92	184.4	129.81	136.19	79.38	139.7	24.69	0.00	0.00	0.00	0.00	0.00	951
<b>ELECTRICITY (kwhr)</b>													
Average per day	10,234	8,857	9,579	9,854	8,219	8,019	9,455	9,962	7,443	6,418	6,511	9,191	8,645
Total (kwhr)	347,951	274,582	296,946	285,771	246,581	232,552	302,569	288,963	238,177	198,963	201,829	266,551	3,161,445
<b>RAINFALL (inches) West Bank</b>													
TOTAL	4.27	1.36	4.07	5.05	3.33	2.96	1.94	4.23	5.44	0.06	2.89	3.45	39.15

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**SEWER TABULATION NUMBER 1**  
**SEWER LINES AND MANHOLES IN THE SYSTEM AS OF DECEMBER 31, 2016**

**SEWER LINES DISCARDED AND INSTALLED IN 2016**

<b>ORIGINAL CONSTRUCTION (FEET)</b>	<b>DESTROYED OR ABANDONED IN 2016 (FEET)</b>	<b>BUILT IN 2016 (FEET)</b>	<b>REMAINING IN THE SYSTEM AS OF 12/31/2016 (FEET)</b>	<b>REMAINING IN THE SYSTEM AS OF 12/31/2016 (MILES)</b>
8,243,402.5	79,745.8	118,001.8	8,281,658.5	1,568.496

**SEWER MANHOLES REMOVED AND INSTALLED IN 2016**

<b>ORIGINAL CONSTRUCTION</b>	<b>REMOVED IN 2016</b>	<b>BUILT IN 2016</b>	<b>REMAINING IN THE SYSTEM AS OF 12/31/2016</b>
23,051	21	85	23,115

**DETAILS OF SEWER LINES AND SEWER MANHOLES INSTALLED (CONSTRUCTED) IN 2016**

<b>ITEMS</b>	<b>BOARD FUNDED</b>	<b>BY OTHERS</b>	<b>TOTAL FEET</b>	<b>TOTAL MILES</b>
6" P.V.C.	28,352.1	1,864.2	30,216.3	5.723
8" P.V.C.	75,873.1	44,440.6	80,313.7	15.211
10" P.V.C.	2,784.4	0.0	2,784.4	0.527
12" P.V.C.	1,496.2	1,374.4	2,870.6	0.544
15" P.V.C.	1,012.6	0.0	1,012.6	0.192
18" P.V.C.	471.0	0.0	471.0	0.089
21" P.V.C.	321.2	0.0	321.2	0.061
27" P.V.C.	12.0	0.0	12.0	0.002
<b>TOTAL SEWER LINES CONSTRUCTED IN 2016</b>	<b>110,322.6</b>	<b>47,679.2</b>	<b>118,001.8</b>	<b>22.3</b>
<b>SEWER MANHOLES CONSTRUCTED IN 2016</b>	<b>BOARD FUNDED</b>	<b>BY OTHERS</b>	<b>TOTAL MANHOLES BUILT IN 2016</b>	
	24	61	85	

SEWERAGE AND WATER BOARD OF NEW ORLEANS

December 31, 2016

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 12/31/2015	DESTROYED OR ABANDONED IN 2016	BUILT IN 2016	NOW REMAINING IN THE SYSTEM AS OF 12/31/2016
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	24,440.4	12.0		24,428.4
27" Reinforced Concrete	13,336.4			13,336.4
27" P V C	4,622.0		12.0	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
<b>Total</b>	<b>824,402.5</b>	<b>15.103</b>	<b>118,001.8</b>	<b>821,658.5</b>
<b>Total Miles</b>	<b>1,561,250</b>		<b>22,349</b>	<b>1,568,496</b>

SIZE & MATERIAL OF SEWER	TOTAL LENGTH IN SYSTEM AS OF 12/31/2015	DESTROYED OR ABANDONED IN 2016	BUILT IN 2016	NOW REMAINING IN THE SYSTEM AS OF 12/31/2016
24" Steel	87.0			87.0
24" Reinforced Concrete	26,337.0			26,337.0
24" Asbestos Cement	4,924.2			4,924.2
24" P V C	5,949.6			5,949.6
21" Reinforced Concrete	10,903.1			10,903.1
21" P V C	5,199.2		321.2	5,520.4
20" Ductile Iron Pipe	1,991.4			1,991.4
18" P V C	19,085.0		471.0	19,556.0
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	99,423.2	730.1		98,693.1
15" P V C	13,395.3		1,012.6	14,407.9
15" Plastic Truss	1,766.8	432.2		1,334.6
12" Vitrified Clay	108,874.6			108,874.6
12" P V C	65,984.4		2,870.6	68,855.0
10" Vitrified Clay	153,648.7	1,528.6		152,120.1
10" Steel	130.0			130.0
10" Concrete	48,084.7	829.8		47,254.9
10" Asbestos Cement	4,356.2			4,356.2
10" P V C	133,930.1	160.0	2,784.4	136,554.5
10" Plastic Truss	4,983.5	306.0		4,677.5
8" Terra Cotta	318,613.7	6,715.0		311,898.7
8" Vitrified Clay	4,031,020.3	62,475.9		3,968,544.4
8" Cast Iron	32,210.2	174.0		32,036.2
8" Ductile Iron	2,233.0			2,233.0
8" Concrete	270,543.8	4,544.9		265,998.9
8" Asbestos Cement	3,562.9			3,562.9
8" P V C	837,621.2		80,313.7	917,934.9
8" Plastic Truss	63,412.1	1,500.3		61,911.8
8" Plastic	691,151.6	337.0		690,814.6
6" Terra Cotta	9,194.7			9,194.7
6" Vitrified Clay	76,522.4			76,522.4
6" Cast Iron	4,204.4			4,204.4
6" Asbestos Cement	4,493.9			4,493.9
6" P V C	371,588.7		30,216.3	401,805.0
6" Plastic Truss	1,763.3			1,763.3
6" Plastic	364,876.3			364,876.3
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>8,243,402.5</b>	<b>79,745.8</b>	<b>118,001.8</b>	<b>8,281,658.5</b>
<b>Total Miles</b>	<b>1,561,250</b>	<b>15.103</b>	<b>22,349</b>	<b>1,568,496</b>



**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**WATER TABULATION NUMBER 1**  
**WATER LINES, MANHOLES, VALVES, AND FIRE HYDRANTS IN THE SYSTEM AS OF DECEMBER 31, 2016**

**WATER LINES DISCARDED AND INSTALLED IN 2016**

<b>ORIGINAL CONSTRUCTION (FEET)</b>	<b>DESTROYED OR ABANDONED IN 2016 (FEET)</b>	<b>BUILT IN 2016 (FEET)</b>	<b>REMAINING IN THE SYSTEM AS OF 12/31/2016 (FEET)</b>	<b>REMAINING IN THE SYSTEM AS OF 12/31/2016 (MILES)</b>
9,605,673.7	6,128.0	24,085.3	9,623,631.0	1,822.657

**WATER MANHOLES REMOVED AND INSTALLED IN 2016**

<b>ORIGINAL CONSTRUCTION</b>	<b>REMOVED IN 2016</b>	<b>BUILT IN 2016</b>	<b>REMAINING IN THE SYSTEM AS OF 12/31/2016</b>
30,463	20	65	30,508

**WATER VALVES REMOVED AND INSTALLED IN 2016**

<b>ORIGINAL CONSTRUCTION</b>	<b>REMOVED IN 2016</b>	<b>INSTALLED IN 2016</b>	<b>REMAINING IN THE SYSTEM AS OF 12/31/2016</b>
29,791	41	81	29,831

**FIRE HYDRANTS REMOVED AND INSTALLED IN 2016**

<b>ORIGINAL CONSTRUCTION</b>	<b>REMOVED IN 2016</b>	<b>INSTALLED IN 2016</b>	<b>REMAINING IN THE SYSTEM AS OF 12/31/2016</b>
23,130	10	26	23,146

**DETAILS OF WATER LINES, MANHOLES, VALVES, AND FIRE HYDRANTS INSTALLED (CONSTRUCTED) IN 2016**

<b>ITEMS</b>	<b>BOARD FUNDED</b>	<b>BY OTHERS</b>	<b>TOTAL FEET</b>	<b>TOTAL MILES</b>
2" P.V.C.	811.0	247.3	1,058.3	0.200
4" P.V.C.	29.0	429.8	458.8	0.087
4" DUCTILE IRON	279.0	149.0	428.0	0.081
6" P.V.C.	806.0	244.7	1,050.7	0.199
6" DUCTILE IRON	40.5	78.5	119.0	0.023
8" P.V.C.	5,939.0	7,710.0	13,649.0	2.585
8" DUCTILE IRON	1,566.0	480.0	2,046.0	0.388
12" P.V.C.	1,845.0	1,291.9	3,136.9	0.594
16" P.V.C.	2,038.6	0.0	2,038.6	0.386
20" P.V.C.	100.0	0.0	100.0	0.019
<b>TOTAL WATER LINES CONSTRUCTED IN 2016</b>	<b>13,454.1</b>	<b>10,631.2</b>	<b>24,085.3</b>	<b>4.6</b>
<b>WATER MANHOLES CONSTRUCTED IN 2016</b>	<b>BOARD FUNDED</b>	<b>BY OTHERS</b>	<b>TOTAL MANHOLES BUILT IN 2016</b>	
	36	29	65	
<b>WATER VALVES INSTALLED IN 2016</b>	<b>BOARD FUNDED</b>	<b>BY OTHERS</b>	<b>TOTAL WATER VALVES INSTALLED IN 2016</b>	
	35	46	81	
<b>FIRE HYDRANTS INSTALLED IN 2016</b>	<b>BOARD FUNDED</b>	<b>BY OTHERS</b>	<b>TOTAL FIRE HYDRANTS INSTALLED IN 2016</b>	
	20	6	26	

SEWERAGE AND WATER BOARD OF NEW ORLEANS

December 31, 2016

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 DECEMBER 31, 2016

WATER LINES					
SIZE	MATERIAL	TOTAL LENGTH IN SYSTEM AS OF 12/31/2015	DESTROYED OR ABANDONED IN 2016	BUILT IN 2016	NOW REMAINING IN THE SYSTEM AS OF 12/31/2016
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	10,270.5		100.0	10,370.5
20"	Cast Iron Pipe	87,785.9	100.0		87,685.9
20"	Ductile Iron Pipe	10,405.4			10,405.4
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			112,496.7
16"	Ductile Iron Pipe	6,692.7			6,692.7
16"	Concrete Pipe	5,681.6			5,681.6
16"	Asbestos Cement	65,284.2	2,038.6		63,245.6
16"	P.V.C. Pipe	12,565.4		2,038.6	14,604.0
15"	Reinforced Concrete	1,069.3			1,069.3
12"	Cast Iron Pipe	840,197.1	97.9		840,099.2
12"	Ductile Iron Pipe	17,663.5			17,663.5
12"	Steel Pipe	1,272.9			1,272.9
12"	Asbestos Cement	358,289.2			358,289.2
12"	P.V.C. Pipe	234,371.5		3,136.9	237,508.4
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	114,517.6			114,517.6
8"	Ductile Iron Pipe	39,129.0		2,046.0	41,175.0
8"	Asbestos Cement	697,824.4			697,824.4
8"	P.V.C. Pipe	863,051.1		13,649.0	876,700.1
8"	Plastic Pipe	318,036.5			318,036.5
6"	Cast Iron Pipe	2,470,084.0	3,752.0		2,466,332.0
6"	Ductile Iron Pipe	21,693.9		119.0	21,812.9
6"	Asbestos Cement	1,038,898.5	48.5		1,038,850.0
6"	P.V.C. Pipe	302,279.7		1,050.7	303,330.4
6"	Plastic Pipe	121,385.5			121,385.5
4"	Cast Iron Pipe	1,166,532.5	91.0		1,166,441.5
4"	Ductile Iron Pipe	3,111.8		428.0	3,539.8
4"	Asbestos Cement	22,250.8			22,250.8
4"	P.V.C. Pipe	23,810.9		458.8	24,269.7
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	78,987.0		1,058.3	80,045.3
1"	Galvanized Steel	5,346.6			5,346.6
<b>Total Linear Feet</b>		<b>9,605,673.7</b>	<b>6,128.0</b>	<b>24,085.3</b>	<b>9,623,631.0</b>
<b>Total Miles</b>		<b>1,819,256</b>	<b>1.2</b>	<b>4.6</b>	<b>1,822.7</b>

VALVES				
SIZE	EXISTING IN SYSTEM AS OF 12/31/2015	REMOVED IN 2016	INSTALLED IN 2016	REMAINING IN SYSTEM AS OF 12/31/2016
48"	16			16
42"	4			4
36"	18			18
30"	66			66
24"	39			39
20"	133			133
16"	193			193
14"	3			3
12"	2,309	2	2	2,309
10"	72	0	0	72
8"	6,723	9	41	6,755
6"	13,019	26	14	13,007
4"	7,196	4	24	7,216
<b>Total</b>	<b>29,791</b>	<b>41</b>	<b>81</b>	<b>29,831</b>

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**Table of Rainfall in New Orleans**  
**December 31, 2016**

YEAR	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		ANNUAL MONTHLY AVERAGE	EXCESS OR DEFICIT
	AMOUNT	TOTAL DATE	AMOUNT	TOTAL DATE	AMOUNT	TOTAL DATE	AMOUNT	TOTAL DATE	AMOUNT	TOTAL DATE	AMOUNT	TOTAL DATE	AMOUNT	TOTAL DATE	AMOUNT	TOTAL DATE	AMOUNT	TOTAL DATE	AMOUNT	TOTAL DATE	AMOUNT	TOTAL DATE	AMOUNT	TOTAL DATE		
2007	412	1,81	539	1,38	731	1,81	912	851	17,63	4,43	22,06	7,66	29,72	1,64	31,36	4,42	35,78	11,62	47,40	1,21	48,61	4,52	53,13	4,43	-11	
total	522.13	524.30	1,048.70	578.11	1,676.81	546.76	2,183.53	546.90	2,730.47	638.99	3,377.50	744.52	4,122.02	670.35	4,792.37	638.16	5,450.51	368.96	5,799.47	419.94	6,222.47	532.98	6,752.80			
avg	4.58	4.60	9.20	5.07	14.27	4.82	19.15	4.80	23.95	5.61	29.63	6.55	36.16	5.88	42.04	5.60	47.64	3.24	50.87	3.68	54.98	4.68	59.24			
2008	632	564	11,96	2,57	14,53	7,88	22,41	7,76	30,17	6,52	36,69	9,91	40,60	7,77	48,37	7,87	56,24	1,36	57,60	2,06	59,66	1,86	61,52	5.13	2.27	
total	538.45	529.94	1,060.66	580.68	1,641.34	557.64	2,205.94	554.66	2,760.64	645.51	3,414.19	748.43	4,162.62	678.12	4,840.74	646.08	5,486.75	970.32	5,857.07	422.00	6,282.13	534.84	6,814.32			
avg	4.60	4.61	9.22	5.05	14.27	4.85	19.18	4.82	24.01	5.61	29.69	6.51	36.20	5.90	42.09	5.62	47.71	3.22	50.99	3.67	54.63	4.65	59.25			
2009	516	2,97	813	617	14,30	1,21	15,51	2,46	17,96	2,40	20,36	9,82	24,18	4,62	28,80	7,45	36,25	7,57	43,82	0,78	44,60	19,81	64,01	5.37	5.11	
total	539.61	532.91	1,068.79	586.85	1,655.64	558.85	2,221.45	557.12	2,776.60	647.91	3,454.55	752.25	4,186.80	682.74	4,869.54	659.48	5,523.00	977.88	5,900.89	422.78	6,326.73	554.65	6,878.79			
avg	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	5.88	41.98	5.63	47.61	3.26	50.87	3.64	54.54	4.78	59.30			
2010	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	9,98	41,93	2,26	44,19	0,39	44,58	2,32	46,90	1,58	48,49	4.04	-10.72	
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	6,375.64	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			
2011	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	28,48	9,99	39,47	0,14	39,61	1,66	41,27	0,78	42,04	3.50	-17.02	
total	538.35	540.42	1,081.04	596.08	1,677.12	562.09	2,246.17	561.13	2,810.34	659.33	3,477.71	769.35	4,207.06	693.89	4,940.95	665.73	5,606.66	376.43	5,985.08	426.76	6,414.91	557.00	6,969.26			
avg	4.56	4.58	9.16	5.05	14.21	4.76	19.04	4.78	23.82	5.59	29.47	6.52	35.89	5.88	41.87	5.64	47.51	3.21	50.72	3.62	54.36	4.72	59.06			
2012	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	
total	540.09	543.79	1,086.16	602.24	1,688.39	570.23	2,265.38	566.58	2,832.21	664.17	3,504.42	782.25	4,266.66	711.68	4,998.34	669.55	5,657.88	378.57	6,046.95	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			
2013	514	6,82	11,96	0,55	12,51	25,01	4,51	29,52	4,55	34,08	4,43	38,51	4,58	43,09	5,44	48,59	2,19	50,72	2,81	53,53	4,48	58,01	4,83	-1.10		
total	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			
avg	4.54	4.59	9.15	5.02	14.17	4.86	19.09	4.76	23.85	5.57	29.49	6.56	36.04	5.97	42.01	5.62	47.64	3.17	50.81	3.60	54.49	4.70	59.11			
2014	2,72	6,54	9,26	6,44	15,70	2,19	17,89	7,69	23,57	6,41	31,98	6,49	38,47	4,74	43,21	4,20	47,41	1,94	48,35	1,47	50,82	3,70	54,52	4.54	-4.55	
total	547.96	557.15	1,107.37	609.22	1,716.60	584.93	2,306.48	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			
avg	4.53	4.60	9.15	5.03	14.19	4.83	19.08	4.78	23.86	5.58	29.51	6.56	36.06	5.96	42.02	5.61	47.63	3.16	50.80	3.58	54.40	4.69	59.07			
2015	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	1,47	49,27	6,76	56,03	4.67	-3.01	
total	552.72	558.80	1,113.79	613.43	1,727.22	586.22	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	434.64	6,652.03	574.25	7,203.63			
avg	4.53	4.58	9.13	5.03	14.16	4.89	19.16	4.80	23.90	5.56	29.52	6.54	36.06	5.93	41.99	5.60	47.59	3.17	50.82	3.58	54.40	4.69	59.05			
2016	4,67	2,48	7,15	6,99	14,14	11,73	25,87	5,62	31,49	8,16	39,65	4,94	43,89	7,63	51,62	3,58	55,20	0,02	55,22	3,92	59,14	4,70	63,84	5.32	4.72	
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	576.95	7,271.13			
avg	4.53	4.56	9.09	5.04	14.14	4.94	19.16	4.81	23.96	5.58	29.54	6.52	36.13	5.94	42.07	5.58	47.66	3.15	50.81	3.60	54.41	4.71	59.11			

**SEWERAGE AND WATER BOARD OF NEW ORLEANS**  
**December 31, 2016**  
**COST OF OPERATIONS IDENTIFICATION PROGRAM**  
**BENCHMARKING**

**ADMINISTRATIVE SERVICES DEPARTMENT**

**Insurance Cost per Employee:**

Workers' Compensation	\$ 1,942,236.00
Auto Liability	\$ 241,859.00
General Liability	\$ 138,389.00

**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	\$ 1,072.68
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**FACILITY MAINTENANCE DEPARTMENT**

Cost to set 5/8" water meter	\$ 94.59
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**MANAGEMENT SERVICES DEPARTMENT**

**FINANCE:**

Cost to Process a Miscellaneous Invoice	\$ 31.61
Cost to Process a Vendor Invoice	\$ 9.71
Cost to Process a Paycheck	\$ 6.27

**INFORMATION SYSTEM:**

Cost to Image a Document	\$ 0.70
Cost to Retrieve a Document	\$ 1.79

**PERSONNEL:**

Cost to Hire an Employee	\$ 193.00
Cost to complete a Voluntary - Employee Termination	\$ 17.80
Employee Turnover Rate	15.07%

**PURCHASING:**

Cost to Process a Sundry Purchase Order	\$ 59.75
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**REVENUE:**

Cost to Read a Meter	\$ 1.55
Cost to Render a Bill (Less Meter Reading)	\$ 0.91
Cost to Manage a Customer by Phone	\$ 2.63
Cost to Manage a Customer by Mail	\$ 8.31
Cost to Manage a Walk-in Customer	\$ 6.17
Cost to Process a Mail-in Payment	\$ 1.16
Cost to Process a Walk-in Payment	\$ 2.30

**SUPPORT SERVICES DEPARTMENT**

Average Annual Maintenance Cost Per Piece of Equipment	\$ 1,500.00 18%
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