



“RE-BUILDING THE CITY’S WATER SYSTEMS FOR THE 21ST CENTURY”

Sewerage & Water Board OF NEW ORLEANS

LaToya Cantrell, President

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June 13, 2018

New Orleans City Council
1300 Perdido Street, Suite 2W80
New Orleans, LA 70112

Dear Honorable Councilmembers:

As a follow-up to your May 10, 2018 correspondence regarding the quarterly reports to the City Council required by Louisiana Revised Statute 33:4091, enclosed is information responsive to the underlying statute, as well as additional requests for information set forth in the May 10th letter address to the Sewerage and Water Board of New Orleans (the “Board”) Executive Team.

As previously discussed, the Board will commit to providing these reports to the Council’s Public Works Committee at least one week in advance of the Committee’s scheduled meeting to ensure that the Council has the time to thoroughly review the information, ask additional questions or request further clarification to the information contained herein. As previously expressed, we are encouraged by the open dialogue, and empowered by the Council’s commitment to transparency and accountability on behalf of the City. We are confident that this is what will be required to keep the Board on firm ground, and in position to adapt and innovate as it continues its mission to keep New Orleans safe and healthy. The Board will no longer be a passive agency. We are forging ahead to be more transparent, more accountable, and to rise to our duty as responsible shepherds of the public trust.

As you know, the Board has had two separate interim management teams lead its day-to-day operations since August 2017. These teams were charged with identifying the short term and long term needs of the organization, making recommendations for improvement and implementing key strategies for the organization’s most immediate needs. Much work has already been done. Under a constant cloud of emergencies, from heavy rains to deep freezes, the interim leadership and the dedicated Board staff has accomplished a great deal, including but not limited to:

- Three power-generating turbines have been repaired and returned to service. A fourth is undergoing very methodical testing and should be available by early July. Four electro-motive diesel (EMD) generators are on standby to back the turbines up;
- A fleet of frequency changers and backup generators, both temporary and permanent, are available;
- 115 out of 120 drainage pumps are available; and

- New Orleans' drainage system now has a total 71.25 megawatts (MW) of 25 Hz power, which exceeds the 52 megawatts (MW) required to run at maximum levels. That is more power and capability than it has had in more than a decade.

The progress that the Board has made in the area of technical operations (i.e. pumps and power), is a true testament to the resiliency of our City and the relentlessness of our employees. However, we have a significant amount of work still left to do in order to restore the confidence of our ratepayers and the morale of our workforce. Our commitment is to be out in front. Our commitment is to be more communicative and transparent. Our commitment is to be held accountable, and to hold those who work on our behalf accountable.

This month, we will begin rolling out our sixty (60) day plan for the issues that are most pressing to our employees and ratepayers, namely: (i) billing; (ii) financial health of the organization; and (iii) hiring and promotions.

(i) **Billing**

In 2016, the Board implemented a new billing system, Cogsdale. Since its implementation, our ratepayers have experienced issues with inaccurate, estimated bills and overbilling. The ongoing billing issues coupled with the August 5th flooding, prompted the first interim management team to institute a moratorium on water shutoffs for disputed accounts. In assessing the billing and customer services processes, it is clear three main factors contribute to the Board's billing issues: (1) the inability to read all meters every month, furthering a reliance on estimations; (2) the need for more thorough training to minimize irregularities in readings and processing; and (3) finally, deficiencies in these first two issues have been identified as leading causes of inaccuracies in the billing system's estimation algorithm.

(a) *Solutions.*

It is imperative that the Board restore ratepayer trust in our ability to properly bill our customers. The Board is currently working closely with Mayor Cantrell's administration to engage additional administrative hearing officers to expeditiously decrease the backlog of disputed bills through the administrative hearing process. This will provide our billing and customer service staff with the time they have requested to be properly trained to catch and assess billing irregularities before bills are sent to customers. In addition, we are working with the current vendor to take corrective action in their bill estimating process. This will allow us to slow the growth of the disputed bill backlog and ensure a return to regular, sustainable billing practices. We will be hiring more meter readers and inspectors. This will position us to read meters monthly and decrease or eliminate the need for bill estimation.

(b) *Immediate Next Steps.*

- Implement a fast-track hearing process for all disputes in Q3 of 2018;
- Provide entire customer service and billing team with one week of additional training in July and August of 2018; and
- Hire and train an additional 30-35 meter readers and inspectors in Q3 of 2018.

(ii) **Financial Health**

Since the August 5th flooding, the Board has obligated approximately \$83 million in emergency repairs. These repairs, coupled with the billing issues, which resulted in a moratorium on water shutoffs, have left the financial condition of the Board seriously diminished. More specifically, the Board's reserve fund for its water, sewer and drainage systems has declined from 227.2 days of projected operating expenses as of November 2017 to 126.8 days of projected operating expenses as of April 2018. The Board's Financial Management Policy calls for the reserve fund to be maintained at a level of not less than 180 days of projected operating expenses to provide liquidity for day-to-day operations, as well as to provide capacity to fund emergency repairs. The Board's April 2018 Statement of Revenues, Expenses and Change in Net Position indicates that the Board's April 2018 total operating revenues of \$16,026,772 did not cover the Board's total operating expenses of \$18,079,900 for the same period, leaving a balance of \$2,053,128 that was covered by our reserved funds. The Board's total revenues are approximately 20% below budget and more than a 10% drop month-over-month. The Board's cash flow issues will remain as long as the Board continues to leave the billing issues unresolved and the moratorium on shutoffs in effect.

(c) *Solutions.*

While the solution to the financial condition of the Board is simple, it is not easy. Increasing revenues must be a priority of the Board for obvious reasons, but a consistent and reliable revenue projection will also better position the Board to implement effective long-term financial strategies.

(d) *Immediate Next Steps.*

- Hiring a permanent Chief Financial Officer by June 25, 2018
- Coupled with the billing solutions and related next steps in subsection (i) above, and
- Reinstating shutoffs for all non-disputed bills

(iii) **Hiring and Promotions**

Bringing on new talent at the Board has been a challenge. Despite that perception, the Board has had success in hiring. In the past two years (June 2016 through April 2018), the Board has hired five hundred seventy-four (574) new employees. There are not many organizations of our size that can or have a need to match that pace. The Board's need to hire at this rate results from some unique challenges the Board faces in maintaining the manpower required to operate effectively and efficiently, including the following indicators:

- We have lost 395 employees since June 2016 to retirements, resignations and terminations;
- 18.5 percent of our employees are eligible to retire at any given moment;
- 53 percent of our workforce has fewer than 5 years of experience;
- There is a significant gap in experience, which makes it difficult to use the DROP program as a training and succession strategy. Instead, DROP employees have become a normal way to fill vacancies rather than serving as trainers for new employees.
- Competition with the private sector cuts into the City of New Orleans' pool of typical 21st century workers who are looking for higher wages, and are less concerned about pensions and other benefits as workers in the past. It's a trend that water utilities around the country are facing, some for the first time after decades of enjoying stable, long-term employment among their workers; and

- The SWB's recent struggle with its public image has also made other public sector jobs more attractive to our employees who can switch positions.

Our regular tally of vacancies is also more nuanced than just the unfilled jobs publicized in the local media. While it appears today that we have more than 500 vacancies, between April 2016 and April 2018, the Board added an additional 463 new positions, in the aggregate, in anticipation of a significant number of retirements and a need to begin filling experience gaps previously discussed herein. These additional 463 positions are budgeted positions that did not exist before. If the Board had kept its number of positions the same as it was prior to April 2016 and had achieved the same success of the past two years in hiring, the Board would only have about 60 open positions today.

The Board, like many organizations, also has an internal culture that is resistant to change, because there is a fear that change could eliminate the need for certain opportunities at the Board. We must remain committed to true diversity and inclusion, and ensure that all employees have an opportunity to be actively engaged in organizational change through deliberate dialogue, promoting from within and increasing training opportunities.

(a) *Solutions.*

While we face some of the same systemic challenges that other Civil Service agencies face, we know that we must do better. The Board's hiring managers must be held accountable and do better to carve out time away from their regular duties to vet, interview and select candidates for open positions. They have all committed to doing so, and our Human Resources Department is working to streamline the processes and lift some of the administrative burden off these managers. We have also already begun the dialogue with Civil Service with respect to removing some of the barriers to hiring, including:

- addressing class and compensation issues;
- changing some of the promotion only positions; and
- reviewing and considering equivalencies for positions where minimum qualifications are difficult to meet in the New Orleans market.

(b) *Immediate Next Steps.*

- Hiring Day Series beginning June/July 2018 – One stop shop that will condense 2-4 month process into a single day workshop
- Focus on filling revenue generating positions during Phase I – Meter Readers, Inspectors, Customer Service Representatives and Laborers, etc.
- Focus on operations positions during Phase II – Networks, Engineers, Maintenance, etc.

The Sewerage & Water Board of New Orleans may be exiting its states of emergency, but it remains a critical agency in transition. Its challenges are many and manifold as it labors to fulfill its promises to preserve the health and safety of the City. Never has there been a time when collaboration, sound decisions and strong leadership have been more important. Our leadership team and staff stand ready to work hand-in-hand with Mayor Cantrell, the City Council, civic leaders and all of our stakeholders to set this agency on a sustained path toward modernization.

Now is the time for us to make collaboration a priority, overcome the shortcomings of the past and put the Board on a course to once again be a world leader in water management. We are challenged, now more than ever, to become the new standard in water utility and management. We owe that to our employees, our neighbors, our families, our city. Help us get there.

Sincerely,

A handwritten signature in blue ink, consisting of stylized, overlapping loops and a horizontal line extending to the right.

Jade Brown Russell
Acting Executive Director

1) Standard Industry Practices for Best Practice.

Please see [Appendix 1-A](#) for perspective on industry best practices according to the American Water Works Association.

a) Percentage of water loss;

As reflected herein, the Board does track water billed and water collected – we do not track water loss. Therefore we have not historically captured a percentage of water loss.

The Board’s future should be aimed at developing a water loss management policy. The lack of a water loss management policy is not unique to the Sewerage and Water Board. According to the American Water Works Association (AWWA), a leading organization dedicated to improving water quality and supply, only four (4) states in the country use AWWA’s policy terminology and metrics, only two (2) use AWWA’s M36 software, and only two (2) use AWWA’s M36 software with validation. Louisiana, along with twenty-two (22) other states, does not have a water loss management policy.

b) Percentage of water paid;

The percentage of water use billed versus revenue collected for this quarter is approximately 66%. The department tracks Revenue Billed.

Water Billed	2016-Water-\$83,474,586.44	Sewer-\$98,577,641.57
	2017- Water-\$107,353,671.34	Sewer-\$125,871,120.34
	Q1 of 2018-Water- \$28,958,055.31	Sewer-\$34,510,245.46

The department tracks Revenue Collected.

Water Collections-	2016- \$82,513,793.39	Sewer-\$99,575,345.39
	2017-\$85,129,383.44	Sewer-\$101,987,351.70
	Q1 of 2018-\$19,363,390.45	Sewer-\$23,824,689.76

c) Percentage of receivables outstanding, including delinquency schedule; and

The Board’s billing system does not provide for these metrics. However, at its regular Board Meeting in November 2017, the then-interim management team requested approval from the board to temporarily suspend termination of water service for all disputed accounts. Out of an abundance of caution, the Board suspended all terminations. At that time, there were approximately 5,800 accounts under investigation by the Board’s customer service team. That number grew to more than 10,000 as of the regular Board Meeting in May 2018. It now stands at about 7,800 as our team works through that backlog.

d) Customer service improvements.

Training is an integral component for our progress on customer service improvements. This month, we engaged Blue Drop, a nonprofit entity that spun off from DC Water and specializes in turnaround work with water utility customer service departments. Blue Drop will evaluate the Board’s customer service

operations and create a recommendation report focusing on the customer experience with the Board's customer service call center. That will include metrics, best practices recommendations and a training guide. Our goal is to serve our customers efficiently and effectively in a manner that eliminates any need to circumvent the S&WB's regular customer service processes.

The Council requested the following information regarding the Water Audit:

a) *Is the 2017 Water Audit a final document or a draft?*

The Water Audit report is not created for the quarterly reports for the City Council. It is an **annual** report produced for our consumers and to comply with the EPA's Consumer Confidence Report (CCR) Rule, <https://www.epa.gov/ccr>.

EPA's CCR Rule requires water utilities to distribute an annual water quality report to their customers by June 30th of each year. The water quality data in the report must be from the previous calendar year. One of the reasons EPA allows 6 months to distribute the reports after the end of the year is because for some contaminants, particularly where the concern is with long-term exposure rather than short-term exposure, analytical results are often not available until several months after sampling. Note that the purpose of the CCRs is not to provide public notification of immediate health threats. Acute health threats require immediate public notification through other means (i.e., Boil Water Advisories). Please see **Appendix 1-B**.

b) *For the 2016, 2017, and the first two quarters of 2018, how much water has been lost?*

The Board tracks consumption billed.

Consumption Billed

2016 – 12,055,156,664 gallons

2017- We do not have the information readily available. Cogsdale has been engaged to provide information for 2017.

Q1 – 2018 - 3,899,060,314 gallons

c) *For the 2016, 2017, and the first two quarters of 2018, how much revenue was lost as a result of lost water?*

The Board has not tracked water loss for 2016 and 2017. In Quarter 1 of 2018, the Board engaged Water Company of America to begin identifying and collecting on loss water.

d) *For the 2016, 2017, and the first two quarters of 2018, how much of the water lost is due to city obligations?*

The Board has not tracked water loss for 2016 and 2017. In Quarter 1 of 2018, the Board engaged Water Company of America to begin identifying and collecting on lost water. In addition, Cogsdale has provided access to additional system updates that will track and on all free water accounts.

e) *For the 2016, 2017, and the first two quarters of 2018, how much of the water lost is due to infrastructure issues?*

The Board has not tracked water loss for 2016 and 2017. In Quarter 1 of 2018, the Board engaged Water Company of America to begin identifying and collecting on loss water, including water loss due to infrastructure issues. In addition, Cogsdale has provided access to additional system updates that will track and on all free water accounts.

f) *For the 2016, 2017, and the first two quarters of 2018, how much of the water lost is attributable to meter issues?*

- 2016- This figure is incomplete because of the billing software implementation in October 2016
- 2017-\$505,985.84
- Q12018-\$127,903.11

g) *For the 2016, 2017, and the first two quarters of 2018, how much water did SWB capture as water paid?*

Water Collections- 2016- \$82,513,793.39
 2017-\$85,129,383.44
 Q12018-\$19,363,390.45

Sewer Collections- 2016-99,575,345.39
 2017-\$101,987,351.70
 Q12018-\$23,824,689.76

h) *For the 2016, 2017, and 2018, who were the top 25 biggest consumers of water and were those bills timely paid?*

Below is a historical look at the Top 25 customers for 2016, 2017 and 2018. See [Appendix 1-C](#) for a detailed table of current status of the 2018 Top 25 account holders.

	2016	2017	2018
1	Tulane University	University of New Orleans	Harrah’s Poydras St. Hotel
2	University of New Orleans	N. O. Exhibition Hall	RTH Harvest International Inc.
3	NASA	Board of Commission Port	Episcopal Housing for Seniors
4	University Medical Center	Loyola	University of New Orleans
5	Triangle Real Estate	Orleans Levee Board	NASA
6	Hilton Hotel	Touro	Touro Infirmary
7	Brookfield District Energy	Children’s Hospital	Loyola University
8	N. O. Exhibition Hall	Phylway Construction	WNO Hotels TRS LLC
9	Touro Infirmary	Tulane Medical Service	International House LLC
10	Ritz Carlton	Hilton Hotel	Levee Commission
11	Hyatt Regency	Delta Films	Ritz Carlton
12	Royal Orleans	Woldenberg Village	Southern University at N.O.
13	SMG	VA Dept. of Veterans Affair	6235 Chef Menteur
14	Jazz Casino Company LLC	Ritz Carlton	Saulet Apts LLC
15	AVR-Saulet LLC	Tulane University	Sheraton Hotel
16	PRCP-NS New Orleans LLC	The COVE at Nola	Tulane Medical Service
17	Tulane Medical Service	University Medical Center	N.O. Exhibition Hall

18	University Med Cntr Mgmt.	TLC Services	Tulane University
19	Loyola University	Levee Commission	Phylway Construction LLC
20	Oschner Baptist	ACV VII LLC	First Class Hotels LLC
21	Air Products & Chemicals Inc.	Royal Orleans	Hyatt Regency
22	JW Marriott	SWVP New Orleans LLC	Royal Orleans
23	Sheraton Hotel	LSU Health Sciences Center	Hilton Hotel
24	IX ACP Hotel Owner LP	Hyatt Regency	St. Charles Condo Mgmt.
25	LGD Rental	IX ACP Hotel Owner	Bellsouth

The Council requested the following information regarding payment methods:

- a) *Number of customers who pay their bills online, number of customers who pay their bills in person and/or by mail;*

PAYMENT METHOD	NUMBER OF PAYMENTS
Fidelity Express	1,832
Night Deposit Boxes	2,433
Online	17,538
IVR (Phone Payments)	4,210
Auto Pay	18,307
Walk In	12,528
Mail In	52,329

- b) *Number of complaints over inaccurate bills and average length of time to correct;*

- o As of March 31, 2018, we have 8,567 disputed bills. This number rose to approximately 10,000 by the May 2018 Board of Directors' meeting.
- o It takes an average of 60 – 90 days to correct, because of the backlog. The leadership team, in collaboration with the Cantrell administration, is exploring solutions to expedite the backlog in compliance with the Louisiana Constitution.

- c) *Number of customer interactions that come in online and number that come in by phone;*

For the month of March 2018 - number of webmail 551, number of calls 26,819

- d) *Method and time of response to customer complaints that come in by phone and online;*

For the month of March 2018, the average call wait time was 10 minutes 01 second. This is related to a high daily call volume and a need for more staffing and training.

- e) *Plans for additional public engagement and marketing.*

- The Board has engaged a Public Relations firm to launch a media campaign to educate the citizenry regarding the operation of the drainage system and what residents can do to mitigate flooding during rain events.

- The Board has held a press conference and media tour of the Carrollton Water Plant on June 4 to familiarize reporters with the SWB's power supply. They also received a tutorial on how water is moved through New Orleans during rain events.
- The Board has been engaging news outlets through interviews and editorial board meetings to emphasize how far the SWB has improved since the flood events of 2017.
- The Board is creating educational materials available on our website, swbno.org, to help residents mitigate flooding around their properties and to teach the public about the drainage process.
- The Board's public outreach strategy concerning billing issues is three-fold.
 - 1) The Board is working with the Cantrell administration to identify opportunities to use the Mayor's community office hours as venues to make Board staff available for bill disputes and resolutions. In addition, the Board is identifying opportunities to create satellite sites to make Customer Service representatives available at certain dates and times in each of the seven Council Districts, as well as separate sessions in the Lower 9th Ward and the West Bank.
 - 2) The Board is investigating the efficacy of establishing an auxiliary Customer Service center outside the Central Business District to improve access for customers.
 - 3) The Board is working with the City Council to engage community and neighborhood groups regarding our strategy to improve the billing process.

2) Prevention of Waste or Fraud.

Eliminating fraud, waste, and abuse at the Board is a responsibility and a legal requirement of all of our employees, including our contractors. We recognize that fraud, in any environment, cannot be completely prevented. However, there are several steps the Board will take in the coming months to provide greater assurance that waste and fraud will be detected and deterred. Some of the steps discussed in the summary are listed below.

- Update or establish new written policies and procedures to minimize waste and abuse;
- Reinstitution of the Board's Audit Committee;
- Grow and train our internal audit team using key metrics to establish measurable objectives for detecting waste and abuse.
- Improve training and education opportunities for Board Members, employees, and contractors.
- Improve ethics training for new Board employees.
- Engage outside experts to establish best practices for deterring waste and abuse.
- Enforcement of ethical standards through disciplinary protocols.
- Prompt response to detected problems and forceful implementation of corrective action plans.

In addition, we have several oversight agencies, including, the Office of Inspector General, FEMA and the Louisiana Legislative Auditor, all of which have current audits of the Board underway.

3) Metrics for Employees and Contractors.

a) *Where is the Board's handbook and when is the last time it has been updated?*

Sewerage & Water Board Employee Handbooks are given out during new employee orientation and available in Human Resources (HR) upon request. The latest version was updated January 2018. See [Appendix 3-A](#).

b) *How many employees are in the HR department and when was the last time those policies were reviewed?*

The Human Resources Department has 18 employees. Policies owned by Human Resources are updated on an ongoing basis. See [Appendix 3-B](#).

c) *What mechanism do SWB employees have to recommend improvements in customer service?*

Employees can provide feedback to the Executive Management Team, the Customer Relations Manager and any supervisor in Customer Service. The Board remains open to additional mechanisms to improve employee engagement as it relates to process improvements.

d) *What other employment policies apply to SWB employees?*

Sewerage & Water Board (SWB) employees are subject to Federal laws (i.e. FMLA, FLSA, ADA, HIPPA, Privacy Rights Act), State oversight (i.e. Louisiana Board of Ethics), Civil Service Rules and Sewerage and Water Board Policies

e) *What policies and procedures apply to employee misconduct?*

The policies/procedures that apply to employee misconduct are Civil Service Rule IX, Sewerage and Water Board Policy #4 – Corrective Action, Policy #20 – Time and Attendance, Policy #60 – Accident Review Board, Policy #67 – Substance and Alcohol Abuse.

f) *Is the residency requirement an impediment to hiring enough SWB employees?*

Yes, the residency requirement is an impediment to hiring. The SWB has made job offers that have been turned down by candidates who do not want to move into Orleans Parish.

g) *SWB has 1,615 budgeted positions. The last report showed the SWB had lost between 400-600 employees. How many people are currently employed by the agency?*

As of May 29, 2018, there are 1,809 budgeted positions at the Sewerage and Water Board and 1,286 employees.

h) *Losing that many employees did not happen overnight. When did this start?*

The attrition numbers have been tracked by HR since June 2016. See [Appendix 3-C](#).

- i) What concrete policies and procedures does SWB have in place to stem attrition and to attract new employees?*

The Board uses the following strategies to attract new candidates: job fairs, career fairs, community events and summer work programs. The Board utilizes our own website, as well as the Civil Service website to post job openings and common job search engines such as Indeed, Ideal, and similar web-based platforms for posting some jobs that require more targeted hires. The HR Department is currently working with our Ops team to build out a succession plan. Once completed, the HR Department will move to other administrative departments to conduct similar exercises.

- j) If nearly 47% of the operating budget is for employee salaries and a large fraction of positions are unfilled, what is happening to the money budgeted for employee salaries?*

See the chart below. Budgeted funds that go uncommitted are typically allocated to other areas that are underfunded. Any remaining funds go into the Board's general reserve fund for future operating needs.

- k) What happened to the money budgeted for employee salaries not used for employees over the last five years?*

Amounts that were budgeted, but were not spent during the budgeted year are available and considered during the next budget cycle. See chart on following page for additional information on historical budgeted versus actual spend.

2017	Object	Budgeted	Actual	Uncommitted	Total O&M Budget	% of O&M Budget
	Salaries	\$ 125,980,509.00	\$ 88,450,080.94	\$ 37,530,428.06	\$ 189,060,446.00	66.64%
	Service and Utilities	\$ 64,460,016.00	\$ 56,642,994.32	\$ 7,817,021.68	\$ 189,060,446.00	34.09%
	Materials and Supplies	\$ 33,648,254.00	\$ 49,286,471.25	\$ (15,638,217.25)	\$ 189,060,446.00	17.80%
	Special Current Charges	\$ 2,129,775.00	\$ 2,149,014.27	\$ (19,239.27)	\$ 189,060,446.00	1.13%
	Furniture and Equipment	\$ 1,192,485.00	\$ 542,594.92	\$ 649,890.08	\$ 189,060,446.00	0.63%
	Pension	\$ (21,000,000.00)				
	Overhead	\$ (13,353,724.00)				
	Budget Adjustments	\$ (3,996,869.00)				
	Total	\$ 189,060,446.00				
2016	Object	Budgeted	Actual	Uncommitted	Total O&M Budget	% of O&M Budget
	Salaries	\$ 89,373,085.00	\$ 88,410,908.78	\$ 962,176.22	\$ 173,453,200.00	51.53%
	Service and Utilities	\$ 58,800,171.00	\$ 48,113,810.03	\$ 10,686,360.97	\$ 173,453,200.00	33.90%
	Materials and Supplies	\$ 30,250,133.00	\$ 31,032,116.80	\$ (781,983.80)	\$ 173,453,200.00	17.44%
	Special Current Charges	\$ 5,082,839.00	\$ 1,330,388.90	\$ 3,752,450.10	\$ 173,453,200.00	2.93%
	Furniture and Equipment	\$ 946,972.00	\$ 536,259.31	\$ 410,712.69	\$ 173,453,200.00	0.55%
	Pension	\$ (11,000,000.00)				
	Total	\$ 173,453,200.00				
2015	Object	Budgeted	Actual	Uncommitted	Total O&M Budget	% of O&M Budget
	Salaries	\$ 89,217,762.00	\$ 81,084,852.00	\$ 8,132,910.00	\$ 167,604,912.00	53.23%
	Service and Utilities	\$ 59,590,359.00	\$ 46,333,496.85	\$ 13,256,862.15	\$ 167,604,912.00	35.55%
	Materials and Supplies	\$ 34,551,292.00	\$ 28,878,546.63	\$ 5,672,745.37	\$ 167,604,912.00	20.61%
	Special Current Charges	\$ 5,143,774.00	\$ 1,539,297.32	\$ 3,604,476.68	\$ 167,604,912.00	3.07%
	Furniture and Equipment	\$ 871,725.00	\$ 728,226.19	\$ 143,498.81	\$ 167,604,912.00	0.52%
	Pension	\$ (11,000,000.00)				
	Overhead	\$ (10,770,000.00)				
	Total	\$ 167,604,912.00				
2014	Object	Budgeted	Actual	Uncommitted	Total O&M Budget	% of O&M Budget
	Salaries	\$ 64,914,747.00	\$ 75,201,066.85	\$ (10,286,319.85)	\$ 157,583,677.00	41.19%
	Service and Utilities	\$ 61,928,973.00	\$ 46,739,846.63	\$ 15,189,126.37	\$ 157,583,677.00	39.30%
	Materials and Supplies	\$ 25,947,309.00	\$ 21,468,271.75	\$ 4,479,037.25	\$ 157,583,677.00	16.47%
	Special Current Charges	\$ 3,938,817.00	\$ 1,772,139.08	\$ 2,166,677.92	\$ 157,583,677.00	2.50%
	Furniture and Equipment	\$ 853,831.00	\$ 566,142.70	\$ 287,688.30	\$ 157,583,677.00	0.54%
	Total	\$ 157,583,677.00				
2013	Object	Budgeted	Actual	Uncommitted	Total O&M Budget	% of O&M Budget
	Salaries	\$ 67,254,580.00	\$ 75,998,028.29	\$ (8,743,448.29)	\$ 153,319,437.00	43.87%
	Service and Utilities	\$ 55,674,530.00	\$ 44,686,722.11	\$ 10,987,807.89	\$ 153,319,437.00	36.31%
	Materials and Supplies	\$ 26,154,972.00	\$ 19,368,809.35	\$ 6,786,162.65	\$ 153,319,437.00	17.06%
	Special Current Charges	\$ 3,777,040.00	\$ 1,539,075.70	\$ 2,237,964.30	\$ 153,319,437.00	2.46%
	Furniture and Equipment	\$ 734,950.00	\$ 523,989.99	\$ 210,960.01	\$ 153,319,437.00	0.48%
	Adjustments	\$ (276,635.00)				
	Total	\$ 153,319,437.00				

l) *What steps has the agency taken to change/modify job descriptions?*

A change of a job description takes place prior to a job announcement being posted. Additionally, as part of SWB's recent Classification/Compensation Study conducted by Management Advisory Group (MAG), recommendations for job descriptions were provided.

m) *Who is studying whether certain jobs be changed, modified, reduced, or eliminated in order to pay higher wages?*

HR, in conjunction with hiring managers and Budget Department, regularly conducts reviews that may result in modifications of certain jobs. This effort has not been in relation to higher wages, however, but rather to provide hiring managers with the appropriate resources they need.

n) *What is the plan to change, modify, reduce, or eliminate certain jobs in order to pay higher wages?*

The plan is to use the budget development process to change, modify, reduce, or eliminate certain jobs in order to position the Board to pay higher wages. Change in wages, however, is a process that will be done in collaboration with Civil Service.

o) *Is the call center understaffed?*

Yes, the call center is understaffed.

If so, why?

- Space limitations – We have 30 operator stations and take an average of 1,000 calls per day. Our abandon call rate is approximately 30%. We need an additional 15 operators to adequately respond to citizen inquiries. We do not have additional space or funding to expand the call center at the Saint Joseph Street building.
- Training & Employee Development – New employees need continuous training and refresher courses on best practices in customer service, the newly installed billing system, the RJN work order system, the Invoice Cloud payment processing system and updates to SWB work in progress. We train using other employees and supervisors. This is inadequate. We are in need of a formal training program, with a separate location and dedicated trainers – specifically tasked with training and updating Customer Service Representatives.
- Employee Turnover – The high volume of customer complaints and billing irregularities cause work-related strain on our employees. Retaining good employees has been a challenge.

p) *What is the process a citizen must go through to appeal (dispute) their water bill?*

A citizen may initiate a bill complaint if they wish to dispute charges for water, sewer and sanitation. If water consumption is 50% higher than the previous month, customer is encouraged to check for leaks and such an increase starts and automatic investigation. See [Appendix 3-D](#).

q) *Who is responsible for hearing appeals?*

Customers not satisfied with the decision of the hearing officer may request a rehearing through the SWB Legal Department or make an appeal to the Civil District Court for the Parish of Orleans. The Board currently has two administrative hearing officers that administer hearings to customers with disputes.

See [Appendix 3-E](#).

r) *Who is the final authority to say that a water bill can be adjusted?*

The Administrative Hearing Officer is the final authority in the process. Irregular water bills, however, can be adjusted elsewhere in the process, such as when a leak is detected and repaired.

s) *If water usage spikes beyond normal usage for the meter, is there a mechanism in place to trigger an automatic review?*

The billing system does not calculate normal usage for each individual meter. The system will flag all accounts that are 125% above the dollar amount of the previous bill. The Billing department will place the account on hold and review it for accuracy. We have a backlog of accounts that are flagged for review and staff is working to get the bills out on time. However, due to the lack of an adequate number of bill review clerks, we are challenged to maintain the billing schedule.

t) *Who is responsible for maintaining the payment function of the website?*

Revenue/Customer Services with support from Information Systems.

u) *How many employees are reading meters? Do we need more employees? Would installing smart meters resolve this problem?*

- There are 38 trained readers, known as water inspectors, reading meters.
- Yes, more employees are needed.
- There are 56 positions budgeted. If all 56 positions were filled, the Board would be in a significantly better position to read meters every month, which would have a direct positive affect on billing disputes.

The remaining Meter Reader positions include:

- 4 – Vacant Positions
- 7 – In Training
- 6 - Out injured on Worker's Compensation
- 1 – Working in the Commercial Meter Unit

Installing smart meters would resolve a large portion of the problems with incorrect bills getting to customers, if the implementation is successful and the systems are integrated properly. There will still be a need for Meter Reading inspectors to conduct investigations, maintain the meters and turn water off/on.

v) *Are there enough employees to help with appeal of SWB bills?*

No, there are not enough employees. We need approximately 20 additional positions to adequately, accurately and timely address bill complaints.

w) *How much overtime is SWB paying to employees and is that payment necessary if the organization was rightsized?*

See the attached overtime report, **Appendix 3-F**.

While it is common for utilities employees to use overtime, the aged equipment and outdated processes coupled with the hiring challenges that the Board has faced in the last two years, has increased the need of overtime for employees. Our Human Resources leaders are working with our department leaders to develop a strategy to efficiently and safely minimize the use of overtime through oversight of and

compliance with the overtime policy, as well as hiring strategies that will ensure that departments are building “pipeline” capacity and succession planning.

x) What training do employees receive on operating old equipment and new technology?

There are formal training programs in place for Drainage Pump Stations, Central Control, Water Purification, and Emergency Management. For these four departments, there are training manuals in place that describe the training process. There are also a number of external programs that are required for the industry certifications of our water and wastewater operators.

Most other departments utilize on the job training as the primary means of training personnel.

Presently, we are concentrating on establishing a more robust safety training program. Priya Dey-SarKar is championing that effort.

y) How many SWB employees are eligible for retirement?

There are 238 employees eligible for retirement as of April 30, 2018. See [Appendices 3-G](#).

z) Of those retirement eligible, what is the succession or replacement plan for those employees?

While SWB has not developed a comprehensive succession plan, various strategies that will be included in the eventual plan have been developed: (1) A Career Pathways/Career Development Program designed to provide the skills necessary for entry level positions to feed the pipeline. (2) Deferred Option Retirement Program (DROP) designed to allow retiring employees to train and impart knowledge of the job.

aa) What standard operating procedures have been given to employees to implement optimum operation of equipment?

The Board has standard operating procedures (“SOPs”) that date back to the early 1990s. Although these SOPs are dated, the processes utilized today are in line with those set out in the dated materials. The Board has engaged TMG Consulting (“TMG”) to assess current practices and develop business process documentation. TMG has provided its initial draft of business process documentation for the areas set forth in [Appendix 3-H](#).

bb) All idle equipment is tested weekly, which includes the following auxiliary equipment used in normal operations: (i) motor generators, (ii) rectifiers, (iii) vacuum pumps, and (iv) oil pumps. In addition, whenever equipment is online and operating, personnel makes scheduled rounds (typically hourly) to assess equipment function and take readings for data collection comparison. Any issue discovered during these periodic tests generates a work order for servicing that is submitted to our Facilities Maintenance staff. What standard operating procedures have been given to employees to develop a critical spares program?

To our knowledge, there have been no standard operating procedures established to define critical spare parts that should be kept on hand. We are presently revising and developing standard operating procedures for turbine operations and drainage pumping operations. However, there are standard drinking water and wastewater protocols that the SWB follow.

cc) What standard operating procedures have been given to employees to develop and implement failure management policies to maintain system assets?

At the present time, there is no formal failure management policy. Concentrated efforts to establish and implement such a policy will begin in earnest once the system is restored to a more stable condition. In addition to the website, other parishes (including Jefferson) use Supervisory Control and Data Acquisition ("SCADA") to automate their operational systems. The benefits of SCADA include reduced operational costs, proactive system management, elimination of manual recording of readings and increased efficiency.

dd) What is the funded ratio of your pension system?

The funded ratio of the Employees' Retirement System of the Sewerage and Water Board of New Orleans is 79.4% as of December 31, 2017 (found on page 24 of the attached actuarial valuation). The actuarial valuation is a mathematical report that calculates a pension plan's condition (as measured in part by the funded ratio), required contributions, and liabilities. Most public pension plans (including ERS of SWBNO) have an actuarial valuation conducted annually by an actuary.

See **Appendix 3-I**.

4) Benchmarks of Success between SWB and DPW

The 1992 agreement between DPW and SWB builds upon a previous 1987 agreement to delineate the agencies' separate responsibilities for the drainage system. Under the 1992 agreement, all catch basins, catch basin lateral pipes, drain house connections, subsurface drainage pipes smaller than 36 inches in diameter, and manholes designed to accommodate said drainage pipes are the responsibility of The Streets Department under DPW. All major drainage lines 36 inches in diameter or larger are the responsibility of the SWB. Each agency is to bear the costs of any repairs associated with its respective areas of responsibility.

(a) 1992 Agreement – Is it still in control?

Yes, the agreement is still in control of the relationship between DPW and SWB regarding the drainage system.

(b) Where is the manual of procedures and standards under Article III of the 1992 Agreement

SWB staff will work with DPW to determine the current status of the manual.

(c) Are all conditions of the 1992 Agreement met?

Yes, the Board believes that the conditions are being properly executed.

(d) Is a new agreement needed?

No, the Board does not believe that a new agreement is needed. However, adequate drainage funding continues to be an issue for both entities.

5) Report on Efficiency & Effectiveness of Information Systems

(a) Currently there are no postings of community meetings to engage the public.

A calendar of tentative meeting dates for Sewerage and Water Board of New Orleans and its Committees is available for the public to view at www.swbno.org. These meetings include the opportunity for public comment. Sewerage and Water Board is also exploring opportunities to collaborate with the Mayor and Council on setting up short term billing resolution processes in each Council district. We remain committed to communicating better and more effectively, which includes improved customer relations with our ratepayers and the communities that we serve.

(b) Where does the SWB stand on using and implementing SCADA to increase its productivity and reducing costs?

As it pertains to drainage, the SWB uses PI Vision data acquisition system to collect and visualize data from the drainage system during operations. This system is able to monitor operations, but it cannot control or automate any major drainage operations.

The existing components of the major drainage assets just do not have the ability to be readily outfitted for automation or control. To establish this type of platform for the drainage equipment would require the replacement of pump motors, valves, control gates, and major electric components, such as switch gears and breakers, with equipment that is capable with full SCADA implementation. It is not simply a “bolt on” feature because much of the drainage equipment was built before this technology was readily available.

There have been advancements by the SWB to have a better view of the operations. Since August 2017, the SWB has designed and deployed the PI Vision system that allows the SWB operations team to view what is happening at the major pump stations in real time, rather than relying on radio communications or reviewing the logs post event. The system also acts as an electronic historian so that data can be reviewed and analyzed at any time. The PI system monitors whether pumps are off, on or pumping water; how much power goes to their motors; the status of electrical feeders; the amount of rainfall (accumulated and intensity); suction basin elevations at pump stations, and discharge basin elevations. The first functional use of the system was May 18, 2018. The SWB is reviewing the station logs side by side with the PI data to understand the matchup of information between PI and the logs. The next phase of the deployment is to add warning signals to the systems to notify the operations teams of changing conditions and to add the system to SWB Central Control.

6) Detailed Report on System Improvements

According to the Veolia Report, the SWB must update its operating systems as follows:

(a) updating electronic maintenance management systems,

The Board uses an electronic maintenance management system that has modules for both “3-D” assets (such as pumping stations w/ information on each asset within the pumping station) and Linear assets (such as underground water, sewer, drainage pipes, valves, etc.) The Board has already begun meeting with various experts to decide whether we need to find a single system that can provide information on both types of assets or if we need to seek a “best of breed” system for each type of assets. The Board plans on producing a Request for Proposals this year to move forward when funds are available next year.

In all it could take 1 to 3 years to get a new management system configured to move current data into that new system.

It is vital that the Board get a GIS-based system, especially for all linear assets. Modern systems are all GIS-based; most also interface with SCADA data and can do some predictive analysis.

(b) tracking information and workflow,

The proposed system Asset Management / Work Order system will track information and workflow, as all modern systems do. The current billing software has a mobile workforce module which tracks work and workflow for all billing related (mostly meter) work orders. The Board envisions similar functionality where work would be entered in the field into mobile applications with real-time updates of work, as well as ease of assigning new work during the day.

(c) ensuring alignment of GIS data with the DPW (See, Section 4 above)

DPW (via the City’s GIS) and the SWB maintain separate GIS Data sets. Each entity is responsible for keeping its own data up to date and updating the other entity with changes. The Information Systems Department Administrator and the head of the City’s GIS Group met bi-monthly until recently. Discussions with Kim LaGrue are ongoing about how to continue the sharing of information until someone is selected to replace Greg Hymel, who recently resigned his position with the City. We have recently opened a dialogue about two-way sharing of GIS data.

(d) creating/updating intranet reporting system

While Information Systems has a software product, InvGate, which could be developed for this purpose, SWB staff will have to determine access and features. This system will stand alone until a new Asset Management / Work Order system has been implemented.

(e) maintaining a digital document system;

The Board will be moving to Office 365 and implementing SharePoint, which will help centralize documents and document versions for all electronically produced documents. The Legal Department has been tasked with selecting a Digital Document Management System for the Sewerage and Water Board.

The Revenue Department scans all key customer documents and attaches them to the customer record in the Cogsdale billing system. The upcoming Great Plains Human Resources / Payroll system will have the same functionality.

(f) improving system visibility

Information Systems has worked with Veolia to implement / improve the drainage SCADA system:

- Hardware installation: Digital power meters, Programmable Logic Controls (PLCs) and Personal Computers (PCs) were added to a majority of the Drainage Pump Stations as well as key power Stations to ensure that the necessary communications infrastructure was in place. Local networking hardware was also furnished.
- Software installation: Recommended SCADA software was added and used to collect all system operating data at the local stations and feed it into the existing SWB GE historian at the Carrollton locations. Additionally, based on Veolia's recommendation, the SWB purchased and installed OSISoft Pi as the centralized data system required by the scope definition.
- Software development: Veolia has worked with other contractors on their project to develop screens in Pi that will give real time information about the drainage system. Pump status and availability, power status, water pressure, etc. can be viewed in real time. Additional screens are being developed, as requested. These screens are available to Central Control and the Emergency Operations Center during emergencies.
- Transition of ownership to the SWB: The SWB is in discussions with Veolia regarding recommendations for long term staffing of an Operations Technology (OT) Group develop, manage, and maintain the SCADA system. Civil Service will need to create positions for the group. For the short term, the Board is considering contracting with local staff that can fulfill the Board's needs until its own staff is ready to take over. The OT Group will work closely with Information Systems to ensure all networking, security, and hardware standards are followed.

Veolia and SWB staff meet weekly to discuss the status of the System Visibility Project. Several important projects currently underway include linking the SWB SCADA system with the Flood Protection SCADA system at the new drainage pumping stations built by the Corps of Engineers; providing connectivity to the SCADA data for Jefferson Parish; providing connectivity to the PI Screens for the City of New Orleans Emergency Operations Center and the Deputy CAO of Infrastructure. Upon completion of the drainage SCADA projects, the Board is discussing the addition of the PI Historian to the Sewer SCADA system as the next visibility phase.

7) Detailed Reports on Assessment and Status of Operational Reforms, Capital Improvement Programs, and Service Assurance Programs.

The Sewerage & Water Board of New Orleans hired Veolia in September 2017 to assess the condition of New Orleans drainage system after the 2017 rain events. They collected data prior to Nov. 21, resulting in a report dated on March 19 that outlined some of their preliminary findings.

It is important to note that many of the drainage system's functioning pumps are more than a half-century old with many nearing a century of performance life - a hard reality that brings the national infrastructure crisis straight to New Orleans' doorstep. Age and general wear-and-tear will always result in some degree of loss in performance. Decades of deferred maintenance have only heightened the challenges.

Repairing and restoring pump and power systems has been the top priority of SWB staff and two interim management teams since September. We have achieved success under emergency conditions: 18 pumps out of service on Aug. 5, 2017 have been repaired and are available as we enter hurricane season. Three 25 Hz turbine-generators, Turbines 1, 3 and 5, have undergone emergency repairs and returned to service. The SWB has purchased four electro-motive diesel (EMD) generators designed to collectively produce 10 MW of 25 Hz power are now available as backups to the turbines.

Coupling those assets with frequency changers and backup generators, the SWB now has 71.25 MW of 25 Hz power at its disposal. The drainage system requires about 52 MW to run at maximum capacity.

Another important note: the drainage system was not designed to run all its pumps at the same time. To do so would overflow drainage canals or add to flooding downstream of some stations in certain locations.

Veolia's assessment of the drainage system's pumping capacity had its limitations. The pumps that were tested were evaluated during dry weather conditions. Those pumps were not designed to perform under such conditions, nor would we ever expect to use them that way. These are major pumps, some are 14 feet across, and they need a significant amount of water in their suction basins to operate properly.

Tackling such major challenges over the past nine months and adding layers of reliable, redundant power and pumps have allowed the SWB to begin to shift its focus toward improving the secondary equipment and infrastructure needed to advance the drainage system closer to performing at its optimal level. Namely, the electrical systems to operate the pumps and the storm water conveyance system that carries rain runoff to discharge points such as Lake Pontchartrain from the catch basins and smaller drainage pipes.

Many of those secondary support systems were the focus of Veolia's assessment in November 2017 with the report submitted in March 2018.

During this 6-month period, we had already addressed 40 of the 151 examples of compromised conditions that Veolia emphasized in its report. As the SWB followed up, it found nine of those items did not require repairs or adjustments. Additionally there are 35 items in the report that recommend monitoring or further investigation to determine if there is indeed an issue.

Several of these secondary repairs are underway. A contract has been let to repair valves and vacuum systems at Drainage Pumping Station 1 in Broadmoor. Another is in place to further improve the large drainage pumps at Drainage Pumping Station 4 in Gentilly.

Continuing to make these repairs during the rainy season – and now in hurricane season – presents its own challenges. We face a delicate balancing act: Taking pumps out of service to fix what we can without compromising the City’s safety during rain and tropical events. That is not to say we are not committed to bringing the entire drainage system into its optimal state of readiness, but it has to be done with care and careful planning.



Best Practice in Water Loss Control: Improved Concepts for 21st Century Water Management

In 2003 the American Water Works Association (AWWA) adopted improved best practice methods for defining and measuring water loss in water distribution systems. This transition into a new era of effective water management marked a departure from previous terms and practices no longer useful to the industry. The following explains this departure from obsolete practices and articulates key points and best practices in water loss control today.

Improved Terminology: Non-revenue Water

In 2003 AWWA abandoned use of the term “unaccounted-for” water (UFW) because all volumes of water supplied within a distribution system go toward either beneficial consumption or wasteful loss. *All water sent into the distribution system can be accounted for.* Today, the industry term favored by AWWA and its Water Loss Control Committee when quantifying water loss is “non-revenue” water (NRW).

NRW is specifically defined to include the sum of specific types of water loss and any authorized, unbilled consumption that occurs within water distribution systems.

Enhanced Performance Indicators to Measure Progress

Although percentage indicators—typically the ratio of authorized customer consumption to distribution system input—still exist in the industry, AWWA discourages use of percentage indicators, such as the “unaccounted-for” water percentage. Using percentage indicators to assess water loss in distribution systems gives a misleading and unreliable measure of utility performance because a percentage indicator

- › is greatly affected by changing levels of customer consumption
- › cannot distinguish among the specific components of non-revenue water occurring in a distribution system
- › reveals nothing about water volumes and associated costs (the two most important factors in assessing water waste within a distribution system).

Today, the industry best practice for water loss auditing created by the International Water Association (IWA) and AWWA now quantifies **several key performance indicators, which provide vastly superior means for assessing water loss performance in distribution systems, while recognizing that contributing factors and potential corrective measures are specific to each water utility.**



**American Water Works
Association**

Dedicated to the World's Most Important Resource™



The following table provides a guide to the most up-to-date industry best practices and water loss control terminology.

Editorial Guide for Use of Up-to-Date Water Loss Control Terminology		
INCORRECT	CORRECT	WHY
Unaccounted-for water (UFW)	Non-revenue water (NRW)	All water entering a distribution system can be defined as a component of either authorized consumption or water loss
% of system input volume to measure water loss performance	Suite of key performance indicators for water loss as outlined in IWA/AWWA audit method (As an example: gal/service connection/day)	A %-based expression obscures the underlying causes of water loss and impedes realistic solutions based on system specifics

It is important to understand that all water utility distribution systems incur leakage (real losses). Similarly, all water utilities fail to recover revenue from all of the water that is (or should be) billed to customers (apparent losses). Although every system is unique, all water utilities should employ leakage control and revenue recovery programs that strive to keep losses contained to appropriate, economically justified levels. AWWA's Manual: *Water Audits and Loss Control Programs* (M36) and the [AWWA FREE Water Audit Software](#) provide a robust pathway for utilities to develop data-driven programs to cost-effectively manage all water loss components (apparent and real) in distribution systems, as shown below in the IWA/AWWA Water Balance.

The IWA/AWWA Water Balance						
Volume From Own Sources (corrected for known errors)	System Input Volume	Water Exported (corrected for known errors)	Billed Water Exported			Revenue Water
		Water Supplied	Authorized Consumption	Billed Authorized Consumption	Billed Metered Consumption	Revenue Water
Water Imported (corrected for known errors)						
		Water Losses	Apparent Losses			Unbilled Metered Consumption
					Customer Metering Inaccuracies	Unauthorized Consumption
			Real Losses	Systematic Data Handling Errors	Leakage on Transmission and Distribution Mains	
				Leakage and Overflows at Utility's Storage Tanks		
				Leakage on Service Connections up to the Point of Customer Metering		

NOTE: All data in volume for the period of reference, typically one year.



Appendix 1-B



"RE-BUILDING THE CITY'S WATER SYSTEMS FOR THE 21ST CENTURY"

Sewerage & Water Board OF NEW ORLEANS

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

625 ST. JOSEPH STREET
NEW ORLEANS, LA 70165 • 504-529-2837 OR 52-WATER
www.swbno.org

Date: June, 2017

To: Sewerage and Water Board Customers

From: Lisa Martin

Deputy Director of Communications

Re: Water Quality 2016 Report

Every Sewerage and Water Board customer will receive an informational insert in their water bill advising them that their drinking water, supplied by the Sewerage and Water Board of New Orleans, is of the highest quality. It also describes the water treatment process. The mailer is called 2016 Report of the State of Tap Water in New Orleans "Quality Water 2016."

This is the 19th time the Board has distributed this Consumer Confidence Report. It is a requirement of the U. S. Environmental Protection Agency (EPA) and must be mailed to all customers once a year, advertised in the Times-Picayune newspaper, posted on the Board's website and be available at government offices and libraries.

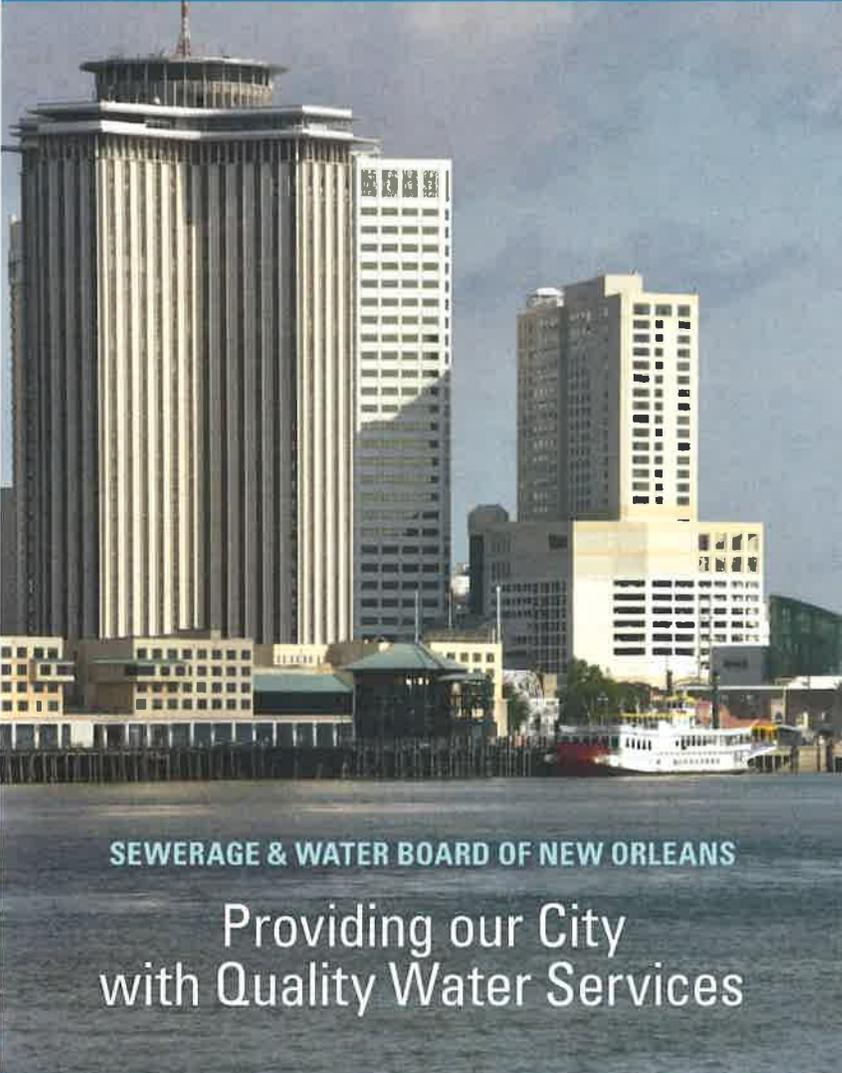
It is named "Quality Water 2016" because all of the water tests results are from 2016. You may have some questions, simply because the report is technical in nature and many chemical names and terms are used. While we would have liked to make it simpler, most of the wording used (including the names of all the chemical compounds) is required by the EPA.

If you have any questions that are technical in nature, please call the S&WB Water Quality Laboratory, (504) 865-0420. We are pleased to provide this very positive report, which shows that the water supplied by the Sewerage and Water Board is of the highest quality. The entire report is posted here on the website. We hope that you will review it to learn about the purification process and the high quality of your drinking water.

Please scroll to view the entire report.

2016 Quality WATER

A REPORT ON THE STATE OF TAP WATER IN NEW ORLEANS The Sewerage and Water Board is pleased to provide you with this Annual Water Quality Report (also known as the Consumer Confidence Report) for the year 2016. *(Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien).* The Board is proud to provide the citizens of New Orleans each day with an abundant supply of quality water for personal and business needs and fire protection.



Sustaining Life Through Safe and Steadfast Water Quality System

From its scanty beginnings in 1718 supporting the city's original 14 blocks, the drainage, sewerage and water infrastructure have made it possible to build and later expand the City of New Orleans. In 1899, the Louisiana Legislature authorized the creation of the Sewerage & Water Board of New Orleans (S&WB) to provide vital water and sewerage services. The Sewerage & Water Board of New Orleans is proud of its 118 year history of providing safe, reliable water to the City of New Orleans including Algiers.

Today, the Sewerage & Water Board supports a thriving and vibrant city more than 350 square miles and a population of more than 401,967 including both the East Bank and West Bank service areas. The Sewerage & Water Board provides New Orleans with high quality water, sewerage and drainage services 24 hours a day, 365 days a year, where and when they are needed. On a normal day, New Orleans and Algiers combined uses approximately 141.3 million gallons of water for essential health,

continued page 7

SOURCE & TREATMENT

Presented by the Sewerage and Water Board of New Orleans. Serving the East and West Banks of Orleans Parish.

The Mississippi River water is treated at the Carrollton Water Purification Plant for East Bank customers in Orleans Parish and at the Algiers Water Purification Plant for West Bank customers in Orleans Parish. In 2016, the Carrollton Water Purification Plant provided an average of 131.6 million gallons of drinking water per day to an estimated population of 348,420. The Algiers Water Plant provided an average of 9.7 million gallons of drinking water per day to an estimated population of 53,547. (Source of population figures is GCR, Inc). The treatment process at each plant is similar. The raw water is treated with chemicals called "coagulants" which cause the small particles in the water to come together to form larger particles which are then allowed to settle out of the water. Rapid sand filtration is used to remove even smaller particles. During the process, chloramine is added to disinfect the water. Lime is added to provide corrosion control and to increase the pH of the water to stabilize the disinfectant. Fluoride is added to prevent tooth decay.

How contaminants can get into

SOURCE WATER

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline: (1-800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulates and establishes limits for contaminants in bottled water.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Our water source is the Mississippi River, a surface water source. A Source Water Assessment has been conducted by the State of Louisiana Department of Environmental Quality. This is an assessment of a delineated area around our water source through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. According to the Source Water Assessment, our water system had a susceptibility rating of high. If you would like to review the Source Water Assessment, contact the Sewerage and Water Board Laboratory at (504) 865-0420 or waterinfo@awbno.org.



The Water Quality Laboratory is located within the Carrollton Water Purification Plant. It monitors river water and finished water from both the First Bank and Aquifers. The Water Quality Laboratory assures the safety and purity of the city's water by testing for organic, inorganic, and microbiological compounds.

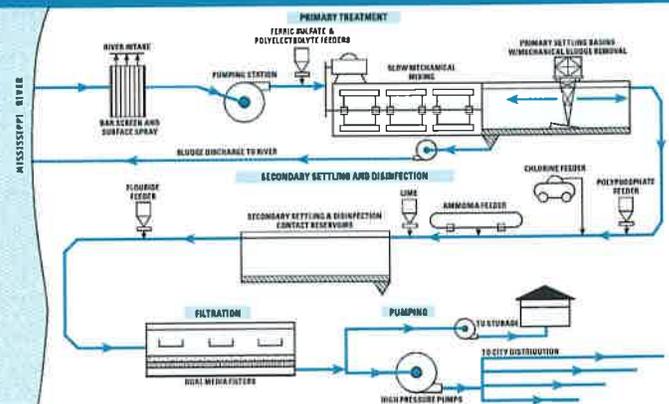
Cryptosporidium

Cryptosporidium is a microscopic organism which, if ingested, can cause diarrhea, nausea, cramps, fever, and other gastrointestinal symptoms. It is found in sewage and animal waste which is washed into rivers and streams when it rains. *Cryptosporidium* can be found in nearly all surface waters in the United States. The best defense a water utility can provide is an effective treatment process which includes the multiple barriers of effective and continuous coagulation, disinfection, and filtration.

In healthy persons, symptoms usually last two to three days. However, cryptosporidiosis can be very serious for people with severely weakened immune systems, such as chemotherapy and transplant patients and people with HIV infections. These people should consult a physician about extra protection, including boiling water, using certified bottle water, or using a home water filter capable of removing *Cryptosporidium*.

While we occasionally detect low levels of *Cryptosporidium* in our source water (*Cryptosporidium* was not detected in any of our 2016 monthly Mississippi River samples), it has only been detected in our tap water three times – twice in 1998 and once in March 2014. In each instance, the concentration was 1 oocyst or less per 100 liters of water. The test for *Cryptosporidium* cannot determine if an oocyst is viable or capable of causing illness, and an occasional oocyst in the drinking water of utilities that use surface water is not unusual and does not necessarily indicate a health problem.

General flow diagram of water purification process



DRINKING WATER Quality Results

from 2016 Compliance Monitoring

From January 1st thru December 31st 2016, monitoring was carried out to determine if the quality of the drinking water met State and Federal Regulations. This is called compliance monitoring.

definitions

In the table (right), you will find many terms and abbreviations, some with which you might not be familiar. To help you better understand these terms, we provide the following definitions:

Parts per million (ppm) – This is a measure of concentration which corresponds to one milligram of a substance in one liter of water (mg/L), or about one drop in 10 gallons.

Parts per billion (ppb) – This is a measure of concentration which corresponds to one microgram of a substance in one liter of water (ug/L), or about 1 drop in 10,000 gallons.

Parts per trillion (ppt) – This is a measure of concentration which corresponds to one nanogram of a substance in one liter of water (ng/L), or about one drop in 10,000,000 gallons.

Running Annual Average (RAA) – Average of data from the previous 12 months, calculated after each monitoring event or period.

Locational Running Annual Average (LRAA) – Average of data at a specific monitoring location from the previous 12 months, calculated after each monitoring event or period.

Nephelometric Turbidity Unit (NTU) – This is a measure of the cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the average person. We monitor turbidity because it is a good indicator of the effectiveness of our treatment process.

Action Level (AL) – The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level Goal (MCLG) – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL) – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level (MRDL) – The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Contaminant	Meets Requirements?	Units	Amounts Detected		Highest Level Allowed (MCL)	MCL Goal (MCLG)	Likely Sources
			East Bank	West Bank			
REGULATED CONTAMINANTS detected in 2016							
Total Coliform Bacteria	Yes	% Positive samples per month	0 – 1.3	0 – 4.0	5	0	Naturally present in the environment
Turbidity ¹	Yes	NTU; Lowest monthly % of samples < 0.3:	0.05 – 0.3 100.0	0.06 – 0.3 100.0	1.49 for any one sample; 95% of samples each month should be < 0.3	N/A	Soil runoff
Fluoride	Yes	ppm	0.26 – 0.92 Avg. = 0.71	0.53 – 0.92 Avg. = 0.76	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate-Nitrite (as Nitrogen)	Yes	ppm	1.7 – 1.7	1.9	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Copper	Yes	90th percentile ppm; No. sites exceeding AL:	0.2 0 of 60 sampled	0.1 0 of 47 sampled	Action Level = 1.3 for 90th percentile	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	Yes	90th percentile ppb; No. of sites exceeding AL:	7 1 of 60 sampled	3 1 of 47 sampled	Action Level = 15 ppb for 90th percentile	0	Corrosion of household plumbing systems; erosion of natural deposits
Barium	Yes	ppm	0.048 – 0.047	0.025	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Selenium	Yes	ppb	ND	0.52	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Uranium	Yes	ppb	0.53 – 0.54	0.87	30	0	Erosion of natural deposits
Combined Radium	Yes	pCi/L	ND – 2.3	ND	5	0	Erosion of natural deposits
Gross Beta Particle Activity ²	Yes	pCi/L	2.5 – 3.9	1.4	50	0	Decay of natural and man-made deposits
Total Chlorine Residual	Yes	ppm	0.5 – 5.0 highest RAA = 3.4	0.0 – 4.9 highest RAA = 2.7	MDRL: RAA should be < 4	MDRLG: RAA < 4	Disinfectant added during water treatment
Total Organic Carbon Removal³	Yes	ratio	1.00 – 2.08 lowest RAA = 1.19	1.00 – 1.58 lowest RAA = 1.01	TT RAA should be >= 1	N/A	Naturally present in the environment
Total Trihalomethanes (TTHMs)	Yes	ppb	15 – 39 highest LRAA = 30	11 – 57 highest LRAA = 34	LRAA should be < 80	N/A	Byproduct of drinking water disinfection
Total Haloacetic Acids (HAA5s)	Yes	ppb	6 – 29 highest LRAA = 26	7 – 46 highest LRAA = 31	LRAA should be < 60	N/A	Byproduct of drinking water disinfection
UNREGULATED CONTAMINANTS ⁴ detected in 2014 and 2015 (from EPA's Unregulated Contaminant Monitoring Regulation 3)							
1,4-Dioxins	N/A	ppb	ND – 0.40 Avg = 0.18	0.10 – 0.21 Avg = 0.15	N/A	N/A	Used in the manufacture of paper, cotton, textile products, automotive coolant, cosmetics, and shampoos
Vanadium	N/A	ppb	0.5 – 1.1 Avg = 0.8	0.5 – 4.1 Avg = 2.4	N/A	N/A	Naturally present in the environment; used as vanadium pentoxide which is a chemical intermediate and a catalyst
Molybdenum	N/A	ppb	ND – 2.6 Avg = 1.6	ND – 2.2 Avg = 1.2	N/A	N/A	Naturally present in the environment; molybdenum trioxide is a commonly used chemical reagent.
Strontium	N/A	ppb	120 – 230 Avg = 176	110 – 180 Avg = 139	N/A	N/A	Naturally present in the environment; was used in the glass of CRT televisions.
Chromium – total	N/A	ppb	ND – 0.26 Avg = 0.06	ND – 0.80 Avg = 0.27	N/A	N/A	Naturally present in the environment; used in the manufacture of steel and other alloys.
Chromium – hexavalent	N/A	ppb	ND – 0.09 Avg = 0.03	ND – 0.12 Avg = 0.09	N/A	N/A	Naturally present in the environment; used in the manufacture of steel and other alloys, chrome plating, dyes and pigments, leather tanning, and wood preservation.
Chlorate	N/A	ppb	120 – 490 Avg = 273	92 – 1100 Avg = 438	N/A	N/A	Byproduct of disinfection of drinking water; agricultural defoliant; used in the production of chlorine dioxide.
¹ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Its sources include soil runoff.			² Total Organic Carbon Removal is reported here as the ratio of TOC removal credits to that required by regulation.				
³ The MCL for Beta Particles is 4 mrem/yr. EPA considers 50 pCi/L to be the level of concern for Beta Particles.			⁴ Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. Monitoring for these contaminants helps EPA decide whether these contaminants should have a standard. N/A = not applicable.				

Tips for Reducing Lead Exposure from Drinking Water

1. **Flush** your tap if your water has not been used for several hours. Depending on the source of lead, this may take from 30 seconds to 5 minutes. Lead can dissolve into drinking water from lead-containing plumbing when it sits in pipes for several hours.
2. **Use only cold water** for cooking and preparing beverages and infant formula. Lead dissolves more easily in hot water.
3. **Do not** boil water to remove lead. Boiling your water will not reduce lead.
4. **Ask your physician** to test your child's blood lead levels. Louisiana Law requires primary medical providers to perform lead testing on children ages 6 months to 6 years.
5. **Test** your water for lead. Contact the S&WB at 52-WATER for more information.
6. **Regularly clean** your faucets' aerators. Lead particles can collect in aerators.
7. **Install** "lead-free" fixtures. Prior to January 2014, fixtures containing up to 8% lead were allowed to be labeled lead-free. Now all fixtures are required to contain less than 0.25% lead.
8. **Replace** galvanized plumbing. Lead from lead service lines can build up in galvanized pipes and later be released.
9. **Replace** lead service lines. The service line from the meter to the house is the property owner's responsibility. If water testing finds high lead levels in your water, the S&WB may replace the service line from the water main to your meter if it is lead. **Be aware** that service line replacements may cause a temporary increase in lead in your drinking water. Studies have found elevated lead levels lasting from days to 6 months after a lead service line replacement.
10. **Consider** using a water filter. Not all filters remove lead. **Be sure** the filter meets NSF Standard 53 for lead. **Be sure** to replace and maintain the filter according to the manufacturer's instructions.

Is There Lead in New Orleans' Tap Water?



Answer: There is no lead in the treated water leaving our purification plants. However, homes that are unoccupied and homes that are undergoing or have recently undergone plumbing renovation may experience elevated lead concentrations in their tap water. Homeowners should thoroughly flush all household plumbing before re-occupying the property.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Sewerage and Water Board of New Orleans is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the US EPA Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Who Tests Your Water?

Testing to determine if New Orleans' drinking water complies with State and Federal drinking water quality standards is performed by the Louisiana Department of Health and Hospitals, the Sewerage and Water Board Water Quality Laboratory, and DHH certified contract laboratories. Where a contaminant was detected in compliance monitoring, we have reported it in the table on the back of this page.

In addition to the compliance monitoring required by drinking water regulations, the S&WB performs daily quality control testing in its laboratory as well as continuous online monitoring of important water quality parameters.

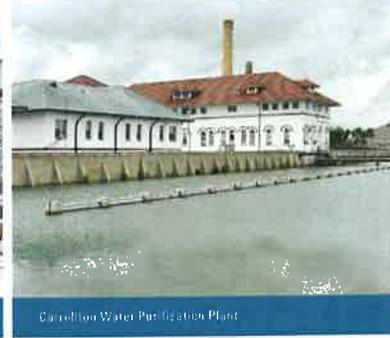
Checking for Chemical Spills in the Mississippi River

The Sewerage and Water Board participates in a program set up by the Louisiana Department of Environmental Quality called the Early Warning Organic Compound Detection System (EWOCDS). DEQ provides equipment at locations along the Mississippi River from Baton Rouge to New Orleans to check for volatile organic contaminants in the river.

The New Orleans location is the Sewerage and Water Board Water Quality Laboratory. Lab personnel analyze river samples each day and report any contamination to DEQ. The S&WB in turn benefits from advance notification of spills provided by upriver EWOCDS locations.



Algiers Water Purification Plant



Carrollton Water Purification Plant

continued from cover

household, commercial, industrial and fire-fighting purposes.

Reliable, high quality water is a basic need essential to everyone. It is, therefore, worth knowing the specific details about your water quality. The Sewerage & Water Board 2016 Water Quality Report explains where New Orleans' water comes from, what's in it, how it's monitored, tested, treated, delivered and more.

The Sewerage & Water Board employees are proud that, once again, the first-rate quality drinking water they produced in 2016 met or exceeded all U.S. Environmental Protection Agency water quality standards and regulations. The Sewerage & Water Board delivered this high quality and abundant water supply to homes and businesses in Orleans Parish for drinking, personal care and fire-fighting needs. A team of expert managers, engineers, operators, machinists, laboratory chemists, technicians, environmental experts, pumping and power professionals, experienced pipe, valve and fire hydrant repair crews and administrative support personnel all work to achieve a single goal. That goal is a safe and steadfast water supply for the citizens of New Orleans.

The Sewerage & Water Board manages a complex water supply system stretching from the East Bank to the West Bank and featuring an intricate series of pipelines and treatment systems. Two features of this system stand out. First, the drinking water provided is among the safest in the country. Second, the system for delivering that water leads the nation in infrastructure waterline replacement.

The Mississippi River is New Orleans' only source of potable water. The river flows past New Orleans at an average rate of 300 billion gallons per day. Raw river water is brought into two treatment plants by four intakes. The intakes are protected from ships and barges by concrete barriers and wooden pilings. The water is then treated via a complex purification process at the Carrollton Water Purification Plant for East Bank customers and at the Algiers Water Treatment Plant for West Bank customers. Combined, the two plants treat approximately 52 billion gallons of water per year. The plants remove about 23,000 tons of solid material from the raw river water. In 2016, the Carrollton Plant provided an average of 131.6 million gallons

of drinking water per day to a population estimated to be about 348,420 people. The Algiers Water Plant provided an average of 9.7 million gallons to a population estimated to be about 53,547 people.

Safe drinking water from the treatment plants is distributed through 2,000 miles of pipes, mains and 143,600 service connections. The water is also carried to approximately 17,000 fire hydrants for fire-fighting purposes.

Water Quality Laboratory Conducts Continuous Monitoring

The Sewerage & Water Board maintains a state-of-the-art Water Quality Laboratory to safeguard continuous and consistent superior water quality. The lab occupies 8,500 square feet of floor space in the Carrollton Water Plant. It is a cutting-edge environmental analysis facility, employing state-of-the-art technology for detecting and identifying contaminants in water at sub part per billion concentrations. The overall laboratory is divided into areas specifically designed and equipped for organic, inorganic, microbiological and plant production analyses.

The Water Quality Laboratory is staffed by chemists, microbiologists and technicians. Key instrumentation used by the lab includes a gas chromatograph-mass spectrometer system, a gas chromatograph, and a total carbon analyzer. The laboratory performs analyses for monitoring the quality of river water and finished water sampled from locations throughout the East Bank and West Bank sections of the city. Information generated in the laboratories is used to control plant treatment processes and research methods to improve those processes and the drinking water.

The Water Quality Laboratory works in conjunction with the Louisiana Department of Health & Hospitals (DHHS) on water testing. The Water Quality Laboratory regularly collects and tests water samples from designated sampling points throughout the system. These tests ensure the water delivered to New Orleans meets or exceeds federal and state drinking water standards and regulations.

continued page 8



(left) This photo shows crews replacing a 48" water main in the construction of the Florida Avenue Canal Project, a part of the reduction and replacement of water lines with 36" for the State and Louisiana Inland Flood Control Program (SEIAC). Besides waterline replacement being a part of SEIAC, the city has a larger citywide multi-year infrastructure repair/recovery waterline replacement program funded by FEMA. This program is designed to restore the city's water distribution system. To ensure that the city is maximizing available funding, various agencies are involved in the coordination efforts of the program.

(right) The two new elevated water storage tanks planned for the Barataria Plant will be a complement to those tanks currently in service. These tanks will have a contained capacity of 4 million gallons and that exceed 200 feet in height. They will be helping to offset water pressure due to power interruptions.

continued from page 7

New Orleans Trailblazer in Replacing Aging Infrastructure
The ongoing issues with water quality in Flint, Michigan have raised concern over aging infrastructure in cities across the country. In most U.S. cities these outdated infrastructures include lead piping. But, while most cities are scratching their heads trying to figure out how to pay the enormous costs of an infrastructure overhaul, New Orleans is currently engaged in the most massive waterline replacement in the city's history. The Sewerage & Water Board of New Orleans is able to undertake this colossal endeavor because of FEMA and other funding secured post Hurricane Katrina.

The S&WB is currently implementing a \$188 million Waterline Replacement Program which is part of a larger City-wide, multi-year infrastructure repair/recovery effort funded by FEMA. The S&WB is coordinating design activities with the Department of Public Works' (DPW's) Recovery Roads Program. The water lines are being replaced concurrently with the Recovery Roads Program. FEMA worked with the S&WB and Department of Public Works (DPW) to develop a systematic, cost effective approach to restore the water distribution system. Approximately 135 miles of water lines qualified for replacement citywide. The program affects residents citywide and is being managed on a neighborhood-by-neighborhood basis.

A Rigorous Purification Process Safeguards High Quality Water
The Sewerage & Water Board utilizes a stringent, 3-stage water purification process to ensure water safety. The water that leaves the Eastbank and Westbank treatment plants is safe, high quality drinking water that is lead-free. As a municipal water utility, the S&WB is highly regulated by both the Environmental Protection Agency (EPA) and the Louisiana Department of Health & Hospitals

(DHH). EPA regulations indicate that 90 percent of the homes sampled must have no greater than 15 parts per billion (ppb) of lead in the drinking water. Samples in New Orleans have consistently been below EPA's action levels.

Once water leaves the treatment plant it may pass through lead service lines between the water main and the residence or building. The pipes do, however, have a protective coating and corrosion control chemicals are used to minimize lead contamination. The Waterline Replacement Program will replace existing pipes with concrete and PVC pipe. Since the Sewerage & Water Board is only responsible for service lines up to the meter, homeowners with old lead pipes are encouraged to replace them with PVC piping. If the homeowner is unable to replace the plumbing, water filters are available in varying price ranges that filter out lead. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the US EPA Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Annual Water Quality Report

Since 1998, the U.S. Environmental Protection Agency (EPA) has required all water utilities to produce and distribute annual water quality reports. The report is extensive and elaborates in its discussions on how the board meets EPA water standards and regulations. The EPA, with further enforcement by the Louisiana Department of Health and Hospitals (DHH), regulates for contaminants that are selected for enforcement. The board has been vigilant and proactive in its water purification mandates and complies with all regulations.

Sewerage and Water Board of New Orleans

Mayor Mitchell J. Landréau
President

Scott B. Jacobs
President Pro Tem

BOARD MEMBERS

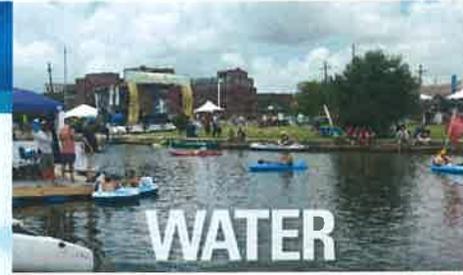
Alan Arnold
Robin A. Barnes
Eric Blue
Merion B. Bracy

Dr. Tamika Duplessis
Ralph W. Johnson
Kerri T. Kane
Joseph E. Peychaud, Jr.

Cedric Grant
Executive Director

Joseph B. Becker
General Superintendent

Drinking water is one of the essential ingredients for life. We at the Sewerage and Water Board of New Orleans are committed to supplying safe drinking water of a quality that surpasses the requirements of State and Federal Regulations.



Conclusion

We are confident that a review of this report will help you better understand your water system and the complete dedication of the Sewerage and Water Board members and staff to provide the highest quality water for its customers—the citizens of New Orleans. After all, the Board members and employees are customers too. We are proud of our water, which has been judged the "Best Tasting" in competition with other water from cities throughout the United States. Taste is important, but equally important are the other water quality parameters described in this report. The Sewerage and Water Board will continue to produce high quality water through the use of proven treatment processes, as well as modern technology.

FOR MORE INFORMATION — Sewerage and Water Board of New Orleans

Laboratory: (504) 885-0420 | Emergency Department: (504) 52-WATER (529-2837) | E-mail address: waterinfo@swbno.org
Internet Home Page: www.swbno.org

More information can be obtained at Sewerage and Water Board meetings which are held on the third Wednesday of every month at 625 St. Joseph St., New Orleans, LA 70005, at 9 a.m.

U.S. E.P.A. Safe Drinking Water Hotline: 1-800-426-4781 | U.S. E.P.A. Drinking Water Internet Home Page: www.epa.gov/safewater

Appendix 1-C

25 LARGEST CUSTOMERS OF THE WATER SYSTEM

	2018	Current (\$0.00 bal)	Not Current	Under Invst	Not Under Invst
1	Harrah's Poydras St. Hotel (201207)	✓			✓
2	RTH Harvest International Inc. (180503)		✓		✓
3	Episcopal Housing for Seniors (218834)	✓			✓
4	University of New Orleans (112413)	✓			✓
	University of New Orleans (190841)	✓			✓
	University of New Orleans (201043)	✓			✓
	University of New Orleans (201044)		✓		✓
	University of New Orleans (201829)		✓		✓
	University of New Orleans (201864)		✓		✓
	University of New Orleans (208536)	✓			✓
	University of New Orleans (214902)		✓		✓
	University of New Orleans (214995)		✓		✓
	University of New Orleans (217232)		✓		✓

25 LARGEST CUSTOMERS OF THE WATER SYSTEM

	2018	Current (\$0.00 bal)	Not Current	Under Invst	Not Under Invst
	University of New Orleans (217547)		✓		✓
	University of New Orleans (217697)		✓		✓
	University of New Orleans (218261)		✓	✓	
	University of New Orleans (218262)	✓			✓
	University of New Orleans (218263)	✓ (has credit)			✓
5	NASA (158548)		✓		✓
	NASA (184894)		✓		✓
	NASA (184895)		✓		✓
	NASA (187037)		✓		✓
	NASA (187565)		✓		✓
	NASA (213536)		✓		✓
	NASA (213537)		✓		✓
6	Touro Infirmary (138995)	✓			✓
	Touro Infirmary (100444)	✓ (has credit)			✓
	Touro Infirmary (100638)	✓			✓
	Touro Infirmary (102873)	✓			✓
	Touro Infirmary (106336)	✓			✓
	Touro Infirmary (107276)	✓			✓
	Touro Infirmary (117483)	✓			✓
	Touro Infirmary (137240)	✓			✓
	Touro Infirmary (150036)	✓			✓

25 LARGEST CUSTOMERS OF THE WATER SYSTEM

	2018	Current (\$0.00 bal)	Not Current	Under Invst	Not Under Invst
	Touro Infirmary (150755)	✓			✓
	Touro Infirmary (150785)	✓			✓
	Touro Infirmary (165301)	✓			✓
	Touro Infirmary (168020)	✓			✓
	Touro Infirmary (169359)	✓			✓
	Touro Infirmary (173244)	✓			✓
	Touro Infirmary (178639)	✓			✓
	Touro Infirmary (180099)	✓			✓
	Touro Infirmary (183181)	✓			✓
	Touro Infirmary (195820)	✓			✓
	Touro Infirmary (195821)	✓			✓
	Touro Infirmary (196002)	✓			✓
	Touro Infirmary (211118)		✓		✓
	Touro Infirmary (214311)	✓			✓
7	Loyola University (120538)	✓ (has credit)			✓
	Loyola University (141599)		✓		✓
	Loyola University (144484)	✓ (has credit)			✓
	Loyola University (180116)	✓			✓
	Loyola University (180117)		✓		✓
	Loyola University (181051)		✓		✓
	Loyola University (183611)		✓	✓	
	Loyola University (187553)		✓		✓
	Loyola University (188952)	✓ (has credit)			✓
	Loyola University (191268)		✓		✓
	Loyola University (207245)		✓		✓
	Loyola University (212954)		✓		✓

25 LARGEST CUSTOMERS OF THE WATER SYSTEM

	2018	Current (\$0.00 bal)	Not Current	Under Invst	Not Under Invst
	Loyola University (213491)		✓		✓
	Loyola University (213729)		✓		✓
	Loyola University (214052)		✓		✓
	Loyola University (217375)	✓			✓
	Loyola University (218939)		✓	✓	
	Loyola University (220585)	✓			✓
	Loyola University (221868)	✓			✓
	Loyola University (149719)		✓		✓
8	WNO Hotels TRS LLC (204937)	✓			✓
9	International House LLC (160536)	✓			✓
	International House LLC (213628)	✓			✓
	International House LLC (215159)	✓			✓
10	Levee Commission (185611)		✓	✓	
11	Ritz Carlton (116710)		✓		✓
	Ritz Carlton (121032)		✓		✓
	Ritz Carlton (121033)	✓			✓
	Ritz Carlton (206048)		✓		✓
12	Southern University at N.O. (183633)		✓		✓
	Southern University at N.O. (217175)	✓			✓
	Southern University at N.O. (217187)		✓		✓

25 LARGEST CUSTOMERS OF THE WATER SYSTEM

	2018	Current (\$0.00 bal)	Not Current	Under Invst	Not Under Invst
	Southern University at N.O. (220306)	✓			✓
	Southern University at N.O. (221830)		✓		✓
	Southern University at N.O. (222521)	✓ (has credit)			✓
13	6235 Chef Menteur (183791)		✓		✓
14	AVR Saulet Apts LLC (214864)	✓			✓
	AVR Saulet Apts LLC (214979)		✓		✓
15	Sheraton Hotel (116562)		✓		✓
	Sheraton Hotel (150270)		✓		✓
	Sheraton Hotel (175535)		✓		✓
	Sheraton Hotel (202538)		✓		✓
	Sheraton Hotel (208599)		✓		✓
16	Tulane Medical Service (195460)	✓			✓
	Tulane Medical Service (195470)		✓	✓	
	Tulane Medical Service (195471)	✓			✓
	Tulane Medical Service (195859)	✓			✓
	Tulane Medical Service (211175)	✓ (has credit)			✓
	Tulane Medical Service (212318)	✓			✓
	Tulane Medical Service (212319)	✓			✓
17	N.O. Exhibition Hall (204936)	✓			✓
	N.O. Exhibition Hall (205270)		✓		✓
	N.O. Exhibition Hall (211141)		✓		✓
18	Tulane University (131980)		✓		✓
19	Phylway Construction LLC		✓		✓

25 LARGEST CUSTOMERS OF THE WATER SYSTEM

	2018	Current (\$0.00 bal)	Not Current	Under Invest	Not Under Invest
	(223448)				
	Phylway Construction LLC (223449)	✓ (has credit)			✓
20	First Class Hotels LLC (172226)	✓ (has credit)			✓
	First Class Hotels LLC (194871)	✓			✓
21	Hyatt Regency (195960)	✓			✓
	Hyatt Regency (195961)	✓			✓
22	Royal Orleans (180542)	✓			✓
	Royal Orleans (180551)	✓			✓
	Royal Orleans (180581)	✓ (has credit)			✓
23	Hilton Hotel (196630)	✓			✓
	Hilton Hotel (198147)	✓			✓
	Hilton Hotel (203395)		✓		✓
	Hilton Hotel (203991)	✓			✓
	Hilton Hotel (208185)	✓			✓
	Hilton Hotel (211775)	✓			✓
24	St. Charles Condo Mgmt. (103459)		✓		✓
	St. Charles Condo Mgmt. (166975)		✓	✓	
	St. Charles Condo Mgmt. (214594)		✓		✓
25	Bellsouth (132422)	✓ (has credit)			✓
	Bellsouth (133210)	✓			✓
	Bellsouth (146244)	✓			✓
	Bellsouth (147736)		✓		✓

25 LARGEST CUSTOMERS OF THE WATER SYSTEM

	2018	Current (\$0.00 bal)	Not Current	Under Invest	Not Under Invest
	Bellsouth (147737)	✓			✓
	Bellsouth (169738)		✓		✓
	Bellsouth (183661)		✓		✓
	Bellsouth (188674)	✓			✓
	Bellsouth (188675)		✓		✓
	Bellsouth (201526)		✓		✓
	Bellsouth (217274)	✓			✓
	Bellsouth (217275)	✓			✓
	Bellsouth (239354)		✓		✓

Appendix 3-A

Sewerage and Water Board
of
New Orleans



EMPLOYEE HANDBOOK

JANUARY 2018

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I. INTRODUCTION

Welcome to the Sewerage and Water Board

An interesting and challenging experience awaits you as an employee of the Sewerage and Water Board of New Orleans. We have written this handbook to answer some of the questions you may have concerning the Board and its policies and to acquaint you with the organization.

Please note: Several Sewerage and Water Board policies will be referenced in this handbook. You may acquire a copy of any and all policies from the Sewerage and Water Board Intranet, the Personnel Department, or your supervisor.

Please read this handbook carefully and retain it for future reference. Information contained in this booklet may be changed at any time. If so, you will be notified. You may, from time to time receive updated information about changes in policy or benefits. Please ask your immediate supervisor or a member of the Personnel Department staff for assistance in such cases.

This Handbook Is Not A Contract

Or

An Offer To Contract

All employees of the Sewerage and Water board are employed in accordance with the rules of the City Civil Service Department.

Sewerage and Water Board's Executive Team, Managers, Supervisor and your fellow co-workers wish you the best of luck and success in your position and hope that your employment with the Sewerage and Water Board will prove to be a rewarding experience.

History of the Sewerage and Water Board

By 1893, City leaders realized that the continued growth would depend on their ability to keep New Orleans drained, dry, and adequately supplied with water for drinking and fire protection, and provided with a sanitary sewerage system. Planning for three systems began that year.

In 1896, the New Orleans Drainage Commission was organized to carry out a master drainage plan that had been developed for the city. Three years later, in 1899, the Sewerage and Water Board was authorized by the Louisiana Legislature to furnish, construct, operate, and maintain a water treatment and distribution system as well as a sanitary sewerage system for New Orleans. In 1903, the Drainage Commission was merged with the Sewerage and Water Board to combine drainage, water and sewerage services under one agency for more efficient operation. The combined organization retained the title Sewerage and Water Board, and remains as such today.

The Sewerage and Water Board today consist of the Mayor, the At-Large Members of the City Council, one District Councilperson selected by the Council, two members of the Board of Liquidation, and seven citizens appointed by the Mayor for overlapping nine-year terms.

The City of New Orleans today, with an abundant drinking water supply as well as Sewerage and Drainage systems, which seem to defy gravity, continues to grow. Today the City enjoys water, drainage and sewerage services comparable or superior to any city in the country. It enjoys an abundant supply of drinking water that exceeds the standards of the Federal Environmental Protection Agency (EPA). Dedicating itself to the three utility services of the drainage, water and sewerage, the Sewerage and Water Board looks forward to many more years of continued service to the citizens of New Orleans.

II. GENERAL INFORMATION

EQUAL EMPLOYMENT OPPORTUNITY

The Sewerage and Water Board is and will continue to be an equal opportunity employer. No employee or job applicant will be subjected to discrimination based upon race, color, national origin, religious affiliation, gender, age, or handicapped status. Aggressive affirmative action will be taken by this agency to ensure that the applicants and employees are treated in a fair and impartial manner and without regard to the above-mentioned factors. The Equal Opportunity Policy (Policy #86) applies to all terms and conditions of employment as well as to the administration of all employee benefits.

The Sewerage and Water Board has an Equal Employment Opportunity office to guarantee that this policy is enforced. Questions or complaints addressed to this office will be immediately investigated. Complaints may also be addressed to the employee's immediate supervisor.

Our Sexual Harassment Policy (Policy #87) forbids sexual harassment in any form. The Sewerage and Water Board is committed to maintaining a workplace free of any such harassment. Employees should direct any inquiries or complaints either to their immediate supervisor or the Equal Employment Opportunity office.

CIVIL SERVICE

Our employees work under a merit Civil Service System. The rules and regulations of the City Civil Service system control most personnel functions affecting the Sewerage and Water Board, including the job classification system and the pay plan. Interested employees can obtain copies of the Civil service rules from the Personnel Department, Sewerage and Water Board Intranet or the City Civil Service Department.

The Civil Service system offers protection to employees who have successfully completed the working test period (described in

the next section). On the other hand, it is not intended to protect incompetent employees or those who violate rules and procedures. Employees who violate Board or Civil Service rules and policies will be subject to disciplinary action.

The Civil Service law protects you as a classified employee from any pressure to take part in the partisan political campaigns or activities or from any pressure to contribute money to such campaigns. You are encouraged to exercise your rights as a citizen by learning as much as possible about the candidates and issues in the election campaign, and by exercising your right to vote as you choose. You may express any political opinion in private and may attend political rallies as an impartial observer. To repeat, you are prohibited by law from taking a partisan role in any campaign at the national, state or local level. Any employees who have any questions about this should contact their supervisor, the Personnel Department, or the Civil Service Department.

WORKING TEST (PROBATIONARY) PERIOD

Every person who is hired or promoted in the Civil Service system to fill a permanent position is placed in what is known as a working test (or probationary) period. This period lasts from six months to as long as one year. As the term implies, this period is actually a practical working test and should be considered part of the Civil Service testing process. During this period your supervisor will decide if you are capable of performing all the duties your job involves. It is also your chance to decide if the job is to your liking.

If your supervisor is satisfied with your job performance after the six-month test period, then you will be granted permanent Civil Service status (however, the probationary period may be extended for an additional six months at the discretion of your supervisor). Once you acquire permanent status you are considered to have the full rights of a regular Civil Service employee, including the right to a hearing before the Civil Service Commission if disciplinary action is taken against you.

RESIDENCY

A City of New Orleans ordinance requires employees hired on or after January 1, 2013 to have and maintain an "actual domicile" in the Parish of Orleans. "Actual domicile" means a person's principal domestic residence.

It shall be the policy of the city to provide employment opportunities with the City to persons who do or will have an actual domicile in Orleans Parish within 180 days of their employment commencing and who thereafter maintain their actual domicile in Orleans Parish.

All employees are required to give their supervisor and the Personnel Department their current home address and home telephone number. Post office boxes are not considered valid residential addresses. Should you move, please notify your supervisor and the Personnel Department of your new address as soon as possible.

SERVICE RATINGS

Civil Service rules require that all permanent employees be evaluated annually by means of a "Service Rating". This is a valuable opportunity to recognize good job performance and to give you suggestions for improvement as needed. Your supervisor will discuss your rating with you. You will be scored in five possible categories: "outstanding", "exceeds requirements", "competent", "needs improvement", or "unsatisfactory". An "unsatisfactory" or "needs improvement" rating may be appealed to a committee appointed by the Executive Director within thirty (30) days; appeal of such a rating may also be made to Civil Service. A final rating of "unsatisfactory" or "needs improvement" may be the basis for disciplinary steps under the Civil Service rules.

SUBSTANCE ABUSE POLICY

The official policy of the Sewerage and Water Board forbids the use, sale, possession, trade or transfer of illegal drugs, the improper use of prescription drugs, or possession/consumption of alcoholic beverages on Board property or during official work time. Disciplinary action is taken against employee's who violate this policy; this action may be in the form of a reprimand, suspension, demotion or dismissal from employment. You may obtain a complete copy of the Substance and Alcohol Abuse Policy (Policy #67) from the Sewerage Water Board Intranet, the Personnel Department or from your supervisor.

Employees should also be aware that Civil Service rules require pre-employment or pre-promotion substance abuse screening for certain categories. Testing is also conducted for accidents, injuries, near-miss accidents, and may be ordered by a supervisor "for cause". All employees are required to pass a substance abuse test after employment during the probationary (working test) period.

POLICY NO. 29 – DANGEROUS WEAPONS, THREATS and/or INTIMIDATION

It is the policy of Sewerage and Water Board that no dangerous weapons (e.g. handguns, rifles, shotguns, knives in excess of 3 inches, etc) shall be brought onto Sewerage and Water Board's property. Nor shall such weapons be carried on the person of a Sewerage and Water employee.

Any employee found brandishing, carrying, discharging or having a dangerous weapon on his or her person or in his or her possession on or in Sewerage and Water Board property will be subject to immediate disciplinary action, up to and including dismissal.

Employees are prohibited from transporting or storing firearms in any vehicle owned or leased by the Sewerage and Water Board.

Threats or intimidation of employees in the workplace by any individual will not be tolerated. Any employee acting in a threatening manner will be subject to immediate disciplinary action, up to and including dismissal.

Employees receiving a threat should immediately notify our Security Personnel or Human Resources Department.

POLICY NO. 80 – WORK PLACE SEARCH POLICY

It is the policy of the Sewerage and Water Board of New Orleans, in order to effect a proper operation of the Board and to insure the safety of its employees and the public, that all employees are advised that work place searches will be conducted upon reasonable suspicion to retrieve Board property, to detect violation of Sewerage and Water of New Orleans' policies, such policies include but are not limited to, suspicion of illegal drugs, alcohol, or weapons.

Employees who refuse to cooperate with such a search shall be subject to disciplinary action.

EMPLOYEE DRESS CODE

All Sewerage and Water Board employees are expected to present a clean, neat, and publicly acceptable appearance throughout the working day. Common sense is the rule in deciding what is acceptable. It is expected that employees will be neatly groomed while on the job.

Detailed dress guidelines apply to employees assigned to the headquarters building at 625 St. Joseph Street. These are contained in the "Headquarters Building Policies" (Policy #15). Uniforms are provided to employees in certain job classifications.

Remember that we represent the Sewerage and Water Board to the public. Dress accordingly!

GRIEVANCE PROCEDURE

The Sewerage and Water Board has an established Grievance Procedure (Policy #26) to resolve employee complaints involving matters that are not under Civil Service control. Our intent is to guarantee fair and equal treatment for all employees at all times.

We encourage our employees to discuss problems or complaints with their immediate supervisor. Give your supervisor a fair chance to resolve your problem or complaint. It is much better to bring a problem to management's attention than to complain about it to your fellow employees and allow the problem to remain unresolved.

III. PAY POLICY

SALARY GRADES

The pay plan governing the salary level of all Civil Service jobs is adopted and periodically updated by the Civil Service Commission with the approval of the City Council. Civil Service assigns all jobs to a job classification and monthly salary grade number. All jobs assigned to the same classification have the same monthly salary grade. A salary grade consists of a minimum salary plus a number of salary levels known as "steps". In most cases, employees are appointed at the minimum salary step of the pay grade for their job classification. Each step within a pay grade represents an increase of 1.25% over the previous step.

PROMOTIONS

Employees interested in a promotion to a higher job must first qualify for the position through Civil service. You must submit an application form to Civil Service and then pass the appropriate examination to be eligible for a promotion.

An employee who is promoted to a new job classification is usually paid at the minimum rate of the new classification. However, if the employee's salary in his/her former job was equal

to or higher than the minimum for the job to which promoted, the starting salary in the new job will be adjusted to a rate five (5) percent above the old rate.

LONGEVITY PAY INCREASES

Civil Service pay rules provide for pay increases based upon years of consecutive employment. Employees receive a 2.5% pay increase upon completion of one full year of service. Another 2.5% pay increase is granted when the employee completes five years of consecutive service. An additional 2.5% increase is granted for each five years of additional consecutive service.

PAY DAYS

Some Board employees are paid on a bi-weekly pay cycle (every other Friday, or 26 times per year). Other employees are paid on a weekly basis (payday is every Friday, or 52 times per year). Each paycheck covers the pay period, which ended on the previous Sunday.

OVERTIME

Your supervisor may, from time to time require you to perform necessary work on an overtime basis. Your supervisor will attempt to give you reasonable notice when there is a need for overtime work. Please remember, however, that advance notice may not always be possible. Overtime work is distributed as evenly as possible, with preference given to those who volunteer and work most reliably.

The Sewerage and Water Board follows Civil Service rules regarding payment for overtime work. You should speak to your supervisor to find out how any overtime worked will affect your pay for that week. As a general rule, overtime pay at 1.5 times your base rate of pay is given for all hours worked beyond 40 hours in a pay week. Annual leave, sick leave, as well as all other forms of leave, official and unofficial holidays will not be counted as hours worked.

SHIFT DIFFERENTIAL

Civil Service rules provide for extra pay for employees who work an evening shift (starting between 2:00 p.m. and 7:00 p.m.) or a night shift (starting between 7:00 p.m. and 1:00 a.m.). Employees assigned to the evening shift receive 2.5% in extra pay above their existing rate. Employees assigned to the night shift receive 5% in extra pay above their existing pay rate.

Contact your supervisor or the Payroll Department if you have specific questions regarding the payment of shift differential.

ON-CALL PAY

The Sewerage and Water Board has established a policy to pay employees who are required to remain "on-call" after the completion of their regular workday for possible return to work.

PAYROLL DEDUCTIONS

Certain deductions are made from each paycheck that you receive. Some deductions are required by law. Federal income tax, State income tax, Social security (FICA) and retirement system deductions must be withheld from your check. Other deductions are voluntary, such as health insurance, Credit Union, Savings Bonds and United Way deductions. Payroll checks are directly deposited to your financial institution. You will receive a pay stub showing the different deductions taken from your pay. Keep those stubs as a permanent record of your deductions and earnings. A record of your Sick and Annual Leave usage is also provided on this stub and should be checked for accuracy.

TIME SHEETS

A weekly time sheet is used to record all hours worked by each employee, including regular hours, overtime, shift pay, leave used, etc. The weekly time sheet must be personally signed by the employee and approved by the immediate supervisor. The time

sheet also contains information concerning the employee's job title, pay rate, etc. and should be reviewed periodically.

IV. GROUP HEALTH AND RETIREMENT BENEFITS

HEALTH INSURANCE

The Sewerage and Water Board offers a Group Health Insurance program for all full-time employees.

A self-insured plan, administered for the Board by HealthSmart Healthcare Solutions is available. Coverage for employees choosing this plan becomes effective on the first day of the month following sixty (60) days of continuous employment. The HealthSmart Healthcare Solutions plan offers benefits for hospital room charges, doctor's expenses, prescription drugs, charges for various tests, as well as major medical coverage through Cigna list of providers.

The Board pays part of the cost under this plan, with the employee paying the remainder of the cost through payroll deduction. Employees must pay an additional amount to cover their spouse or other dependents.

More detailed information about the Board's health care plan, including the scope of coverage, as well as the current payroll deduction amounts can be obtained directly from the Personnel Department Medical Operations.

Pensioners may continue to receive health care coverage through the Sewerage and Water Board. Information can be obtained from the Personnel Department when you apply for retirement benefits.

DENTAL AND VISION INSURANCE

Dental coverage is available to employees covered under the Aetna health plan. This dental plan covers you (or you and your spouse/dependents) on the same basis as you are covered by the health plan. If you have single care health insurance coverage,

you will also have single care dental coverage. If you currently have coverage on your dependents for health insurance, they will also be covered under the dental plan. Vision coverage is also available for those covered under the Board's health plan. The vision benefits are provided under the Vision Service Plan (VSP). A full description of the coverage available for dental and vision may be obtained from the Personnel Department.

MENTAL HEALTH

The Sewerage and Water Board plan provides an Employee Assistance Program (EAP) through Hidalgo Health Associates. The program offers employees and their families' confidential, professional assessment and counseling services to help in overcoming personal and family problems. For information on coverage, please contact Hidalgo Health Associates by calling 1-800-448-4470.

In addition, the Sewerage and Water Board plan provides Mental Health coverage through Cigna Health Insurance.

LIFE INSURANCE

The Sewerage and Water Board provides all full-time employees with group life insurance coverage. Coverage starts on the first of the month following sixty (**60**) days of continuous employment, and ends on the last day of the month in which you terminate your active employment with the Board. Information can be obtained from the Personnel Department Medical Operations explaining the amount of coverage and the details of the policy.

RETIREMENT PLAN

The Sewerage and Water Board has established a retirement plan to assist you after your career is completed. We encourage you to start planning for your retirement early in your career so that your retirement benefits, benefits from the Social Security system, and your personal savings can combine to provide future financial security.

A committee composed of seven members administers our pension plan. Three members are active Board employees elected by their fellow employees. One member represents retirees and is elected by retirees. The other three members are representatives from the community and are designated by the president of the Board.

Membership in our retirement system is required for all probationary, provisional and permanent employees. Each employee contributes 6% of his/her salary each payday to the retirement fund. The Sewerage and Water Board (as the employer) contributes an additional amount to keep the system financially sound.

You may retire at any age when you have thirty (30) or more years of Creditable Service with the Board. Creditable service as defined by the Rules and Regulations of the Employees' Retirement System of the Sewerage and Water Board of New Orleans means service for which a member is entitled to receive a retirement allowance, disability retirement allowance, or separation retirement allowance.

You are also eligible to retire at age sixty (60) with at least five (5) years of Creditable Service with a 3% penalty for each year or fraction of a year that you are below age 62 or at age 62 without a penalty. You may retire when you reach age seventy (70), regardless of the number of years of Creditable Service. You are also eligible to retire by using the Rule of 80, which means your age plus your years of Creditable Service equals or exceeds eighty (80). Various options are also available to provide pension benefits for your spouse.

Your monthly retirement benefit will be based upon a number of factors. Naturally, additional years of employment will increase the amount of your monthly benefit. Unused Sick and Annual Leave may be applied for additional pension service credit under certain circumstances.

A disability pension is available for employees who are no longer able to work because of physical or medical limitations.

You must have at least ten (10) years of continuous service (no age restrictions) to qualify for this benefit. The employee's doctor and the Board's physician must certify that the disability is total and permanent.

More detailed information about the rules and procedures of the system are contained in the booklet entitled "Layman's Guide to the Employees' Retirement System", available from the Personnel Department. Employees who are considering retirement should contact the Personnel Department at least ninety (90) days before the expected date of retirement.

SOCIAL SECURITY

In addition to the security offered by our retirement system, the Federal Social Security Law also covers Board employees. The provisions of the Social Security law are complicated and subject to frequent change. An employee considering retirement should contact the local Social Security office at least sixty (60) days before the expected date of retirement for a more detailed explanation about benefits and eligibility.

DEATH BENEFITS

The legal heirs of a deceased employee receive specific benefits. These include:

- 1.) Any unpaid salary due to the employee at the time of death.
- 2.) Cash payment for unused Annual and Sick Leave days accumulated by the employee at the rates designated by Civil Service rules, unless otherwise applied to the pension benefit.
- 3.) The employee's designated beneficiary receives the benefits from the group life insurance policy.

- 4.) Certain specific death benefits are also provided by our pension system rules.

V. TIME – OFF BENEFITS

The official Attendance Policy (Policy #20) of the Sewerage and Water Board explain in detail the various types of leave available to Sewerage and Water Board employees and the procedures for requesting leave from your supervisor. This memorandum may be obtained from your supervisor or the Personnel Department, and will not be reprinted in this handbook. Rather, this section will briefly summarize the types of authorized leave benefits available.

Please remember that all employees are expected to report to work on time and ready to work on every scheduled working day. The only acceptable excuse for being absent from work is an authorized form of leave.

ANNUAL LEAVE

Annual Leave is for the employee's use in taking a vacation or for taking days off for personal business. Remember that an employee must request permission to use Annual Leave in advance from his supervisor.

Employees earn Annual Leave on the following basis:

- 1.) Employees hired before 1979: 18 days per year; Maximum of 90 days carried over to next calendar year.
- 2.) Employees hired after 1/1/1979: 13 days per year; maximum of 45 days carried over to next calendar year. Bonus days added to Annual Leave account each January 1st based upon the following formula:
 - Three (3) bonus days per year for employees with 5-9 calendar years of continuous service.

- Six (6) bonus days per year for employees with 10-14 calendar years of continuous service.
- Nine (9) bonus days per year for employees with 15-19 calendar years of continuous service.
- Twelve (12) bonus days after twenty (20) or more calendar years of continuous service.

Employees can use Annual Leave after twenty-six (26) weeks of consecutive employment. Civil Service rules allow usage of a minimum of one year's annual year accumulation during any calendar year. Any annual leave over the carryover amount will be converted to sick leave and carried over as such. Unused Annual Leave is paid to the employee at the time of separation on a day for day basis.

SICK LEAVE

Sick Leave is to be used only in cases of personal illness that prevent the employee from reporting to work and performing his/her regular duties.

Employees maybe requested to provide a doctor's slip under certain provisions. Use of sick leave must be reported to your supervisor each day at the time specified by your department's policy.

Unused Sick Leave is accumulated from year to year with no limit on the amount, which may be accumulated. Unused Sick Leave is paid to the employee at the time of separation in accordance with the formula specified in the Civil service rules, or it may be applied to the total amount of creditable service if the employee is eligible for retirement.

Employees earn Sick Leave on the following basis:

- 1.) Employees hired before 1979:
 - 24 days earned per calendar year.
- 2.) Employees hired after January 1, 1979:

- 13 days earned per calendar year.

Employees eligible for bonus Sick Leave days each January 1st based on the following formula:

- Two (2) bonus sick days per year for employees with six (6) through fifteen (15) calendar years of continuous service.
- Seven (7) bonus sick days per year for employees with sixteen (16) or more years of continuous service.

CIVIL LEAVE

Civil Service rules grant an employee time off from the job without loss of pay when performing jury duty, appearing under subpoena before a court or other public body, performing emergency civilian duty related to national defense, participating in a City Civil Service examination, etc

Check with the Personnel Department or your supervisor if you have a question about the use of Civil Leave.

FUNERAL (BEREAVEMENT) LEAVE

This is a special type of leave (charged against the employee's Sick Leave account) used for an absence from work because of a death in the immediate family. Civil Service rules define "immediate family" as including the father or mother, wife or husband, child, brother or sister, any other relatives (including relatives by marriage) living under the employee's roof.

Funeral leave is limited to three (3) working days, with an extra two (2) days granted if travel is required.

MILITARY LEAVE

State law grants paid military leave for employees who are members of National Guard or Reserve units up to a maximum of fifteen (15) working days per year. Any further period of active duty in that same year would be absorbed by another type of leave, such as Annual Leave or Leave without Pay.

Employees providing a copy of their orders to the Sewerage and Water Board and entering a period of active military service with the armed forces of the United States or the State of Louisiana are placed in military leave without pay status for the entire period of active duty and up to ninety (90) days following discharge or up to one (1) year of hospitalization after discharge. Civil Services rules provide for reinstatement to the job vacated by the employee.

MATERNITY LEAVE

This is a period of approved absence for incapacitation related to pregnancy or childbirth. Maternity leave may be charged to the employees' Sick Leave, Annual Leave, or Leave Without Pay (or any combination of these). Maternity leave is limited to the period of incapacitation, as recommended by the employee's doctor.

FAMILY and MEDICAL LEAVE ACT (FMLA)

The FMLA became effective August 5, 1993. It provides certain employees with up to twelve (12) workweeks of unpaid job-protected leave a year.

If the employee requesting FMLA leave has sick leave available, he/she shall use sick leave for a personal illness, or annual leave when his/her sick leave is exhausted. If the employee's sick or annual leave is exhausted and the employee is unable to return to work, the remainder of the FMLA leave will be unpaid.

To be eligible for FMLA leave, an employee must have worked for at least 12 months; and have worked at least 1,250 hours during the 12 months prior to the start of the FMLA leave. Employees may request FMLA leave for the following reasons:

- The birth of a child, or placement of a child with you for adoption or foster care;
- Your own serious health condition
- To care for an immediate family member due to his/her serious health condition;
- Because of a qualifying exigency arising due to the active duty status with the Armed Forces of an immediate family member;
- Because you are the immediate family member or next of kin of a covered service member with a serious injury or illness.

LEAVE OF ABSENCE

Civil Service rules allow the Executive Director (with the recommendation of the employee's supervisor) to grant a Leave of Absence without pay of up to one (1) year. Leave of this type must be considered to be in the best interest of the classified service. The Civil Service Commission must approve a longer period of leave without pay.

A request for a Leave of Absence must be in writing, and should include a detailed reason for the request, including specific dates and supporting documentation applicable.

VI. TRAINING PROGRAM

The purpose of the Sewerage and Water Board Training Program is to develop a well-educated, highly skilled staff. To this end, employees are encouraged to participate in a variety of training opportunities. Employees should look on every job assignment as a learning opportunity. Most job related skills will be learned through On-the-Job Training (O.J.T.). By observing your supervisors and peers as they perform their duties, you can

learn the proper procedures, skills and techniques to do your job safely and efficiently. In this way you can also learn the skills of higher positions that will help you qualify for promotions.

A wide variety of courses are available through the Civil Service Employee Growth and Development Program. Based on availability, employees may participate in at least one (1) class each month. A catalog of course descriptions and schedules is available from the Training Division, Sewerage and Water Board intranet or your supervisor. A variety of seminars, both public and in-house on topics related to your work, are offered each year. There is no charge to the employee for any of these programs.

Permanent employees who wish to further their education through a local university or trade school may also take advantage of the Tuition Reimbursement Program. Tuition for eligible courses is reimbursed up to one hundred percent (100%) and need not be repaid if you continue to work for the Board. Details on eligibility and application procedures are contained in Policy Memorandum # 55, available from your supervisor or the Personnel Department Training Division.

Employees of the Operations or Networks Departments whose jobs require that they obtain a State Certification from the Health Department are eligible for training to prepare for the test. This training is provided without charge for eligible employees.

Employees who wish to participate in the Sewerage and Water Board Training Program, or who see a training need which is not being addressed, are encouraged to contact their supervisor or the Personnel Department.

ETHICS TRAINING

The Louisiana Board of Ethics Administration requires each public servant to complete one hour of mandatory training on the Code of Governmental Ethics per calendar year of his/her public employment.

The training may be completed online at the Ethics website. The website for the Ethics Training Course is:

<https://www.eap.ethics.la.gov/EthicsTraining/>

VII. SAFETY AND HEALTH

ACCIDENTS – GENERAL INFORMATION

All accidents must be reported at once. Procedures and forms exist for reporting vehicular and non – vehicular accidents as detailed in your Safety Manual.

If you are hurt on the job, and require medical assistance, please follow these guidelines:

A. Serious injuries

1. Call, or have your supervisor, dispatcher, etc. call Telephone Number 911, and request immediate medical assistance.
2. Any serious injury may be referred to any hospital.
3. If no particular hospital is known, then serious injuries should be referred to Touro Infirmary Emergency Room, 1401 Foucher Street.
4. Call the Workers' Compensation Office (585-2251)
5. After normal working hours call (920-6412)

B. Non-Serious injuries

1. Call, or report to, the Workers' Compensation Office, 625 St. Joseph St., Room 249, 585-2251.
2. After normal working hours call 920-6412

If there are any questions as to whether the injury is serious or not, please follow the guidelines for a serious injury.

The Workers' Compensation Office is usually open from 8:00 A.M. to 4:00 P.M., Monday through Friday, except for holidays.

Accident report forms must be completed, and submitted immediately.

On the day of the accident, contact the Workers' Compensation Office, 585-2251, and make an appointment to execute a report of the accident.

You can report any unsafe act or situation that you notice to the Safety Department, Rm. 112, in SWB Administration Building 585-2110. The Safety Department will investigate promptly.

The Safety Department will review all matters related to the safety and health of employees, and will make recommendations as to the best safety equipment to use, how to use it, and what to talk about at regularly scheduled safety meetings.

WORKERS' COMPENSATION

Sewerage and Water Board employees are covered, in the event of injury or occupational illness, by the Louisiana State Workers' Compensation Law.

If you suffer an injury on the job, you should accurately report the injury at once to your immediate supervisor. You should submit yourself promptly to all necessary Drug Screenings, first aid, and to additional medical treatment, if needed. You should also submit yourself to future medical examinations, as requested. When an injured employee has been discharged by his doctor and approved to return to duty, he is to report to the Workers' Compensation office for clearance.

To be eligible for workers' compensation benefits, the injury must occur while you are performing your assigned duties for the Sewerage and Water Board. It must be caused by the work you are doing for your employer and it must not be intentionally self-inflicted or result from foolish behavior or horseplay.

Under the Workers' Compensation Law, the Sewerage and Water Board pays the medical expenses resulting from your on-

the-job injury or occupational illness up to maximums set by the State Law.

Also, the Sewerage and Water Board will pay you compensation in lieu of salary when you are off the job because of an occupational injury. If you have accumulated Sick Leave, the Sewerage and Water Board will continue to pay your full salary for the days that you are not able to come to work because of injury. Your salary will be a combination of Sick Leave and the Workers' Compensation benefit.

Workers' Compensation benefits do not start until after the employee has been absent from work due to the injury for five (5) working days. Employees must use accumulated Sick Leave and Annual Leave (must be employed for twenty-six (26) weeks prior to annual leave usage) or be on leave without pay status for this waiting period. If the employee is out for six (6) weeks due to the injury, however, the employee may be eligible to receive compensation benefits for the first week of the absence.

These Workers' Compensation benefits may be denied you if you willfully fail to follow the rules for your safety or fail to use the personal protective equipment or safety devices that are provided for our protection.

If you are doubtful as to your rights or duties under the Workers' Compensation Law, present your questions to the Sewerage and Water Board's Workers' Compensation Office. The staff will be happy to explain the requirements of this beneficial law. We are aware that Workers' Compensation does not pay all of the expenses, nor does it relieve the suffering from pain or the disruption in family life that results from injury. Therefore, you are urged to perform your work safely. Obey the safety rules, report unsafe conditions to your supervisor, and wear the protective equipment that has been assigned to you to prevent injury. Money not wasted on needless accident expenses can be used for more beneficial, productive programs.

VIII. OTHER INFORMATION

YOUR RESPONSIBILITIES

You as an employee of Sewerage and Water Board receives many benefits as listed in this handbook. However, you must also be aware of your responsibilities that go along with your job. You should:

- Abide by all policies, rules and regulations.
- Practice care and avoid excessive waste when using equipment or materials.
- Do not engage in any improper political activity.
- Treat our “customers” both internal and external with respect, courtesy, and attentiveness whenever they interact with you.
- Abide by all safety regulations.

REPORT OF PERSONAL THEFT

To help investigate and resolve any problem with the disappearance of personal or Board property, employees are encouraged to report such to the Claims Department, 625 St. Joseph Street, Room 119, contact number (504) 585-2252. A New Orleans policeman is assigned to the Board to conduct any investigations necessary. (Refer to Policy Memo # 48)

RECREATION CLUB

The Sewerage and Water Board Recreation Club is a voluntary organization sponsoring a variety of athletic, recreational and social activities for its members. Your supervisor can give you the necessary information if you are interested in joining.

CREDIT UNION

As a Sewerage and Water Board employee you are eligible to join our Credit Union, which operates much as a “private bank” for its members. It is operated by a nine (9) member board elected

by the members, and is regulated by federal law to protect the rights of all members. The Credit Union offers savings accounts, share draft checking accounts, low interest loans, loan payments or savings deposits via payroll deductions, Christmas Club accounts, and a variety of other programs.

Contact the Credit Union office for more information or to become a member.

OUTSIDE EMPLOYMENT

While Sewerage and Water Board feels that all employees should give their entire work energy toward their job with us, it is the policy of the Board to allow its employees to engage in outside work or hold other jobs, subject to certain restrictions. (Refer to Policy Memo # 103)

Sewerage and Water Board of New Orleans requires that employees' activities and conduct away from the job must not compete or conflict with or compromise its interests, or adversely affect job performance and the ability to fulfill all responsibilities to the Board.

A violation of any of the prohibitions outlined in Policy Memo #103 may result in disciplinary action, up to and including, termination.

UNEMPLOYMENT INSURANCE

Sewerage and Water Board employees are covered under the provisions of the State of Louisiana Unemployment Insurance Laws. Upon termination of your employment with the Board, you will be given information concerning your rights under these provisions.

Appendix 3-B

Sewerage & Water Board of New Orleans (SWBNO) HR-Related Policies

- **Policy #3 – On-Call Pay**
 - Last Revised – June 17, 2016
- **Policy #4 – Corrective Action**
 - Created on – June 23, 2017
- **Policy #6 – Professional Conduct**
 - Created on – February 20, 2017
- **Policy #8 – Residency Requirement**
 - Last Revised – May 14, 1997
- **Policy #9 – Affirmative Action**
 - Created on – August 24, 1976
- **Policy #12 – Voluntary Retirement Notification**
 - Last Revised – May 12, 1989
- **Policy #16 – Sales and Solicitations at SWB Facilities**
 - Created on – February 16, 1982
- **Policy #20 – Time and Attendance**
 - Last Revised – June 26, 2017
- **Policy #22 – Leave Policy**
 - Last Revised – June 23, 2017
- **Policy #26 – Grievance and Appeal**
 - Last Revised – June 23, 2017
- **Policy #33 – Work Shift Pay Differential**
 - Created on – June 13, 1980
- **Policy #36 – Retention of Records**
 - Date Revised – December 19, 2016
- **Policy #38 – Rehire/Reinstatement of Retirees**
 - Created on – January 5, 2018
- **Policy #39 – Hiring of New Employees by Personnel Director**
 - Created on – October 27, 1980
- **Policy #40 – Interviewing of Job Applicants by Supervisor**
 - Created on – November 11, 1980
- **Policy #41 – 1981 Pay Raise**
 - Created on – January 30, 1981
- **Policy #43 – Equal Opportunity for Physically Handicapped**
 - Created on – September 23, 1981
- **Policy #46 – Travel Policy**
 - Last Revised – December 20, 2013
- **Policy #47 – Nepotism**
 - Last Revised – May 1, 1987
- **Policy #51 – Bumper Stickers and Unauthorized on Passengers in SWB Vehicles**
 - Created on – May 27, 1983
- **Policy #52 – Holiday Pay**
 - Last Revised – April 30, 1997
- **Policy #53 – Third Party Requests for SWB Info Files or Documents**
 - Last Revised – June 15, 1984

- Policy #54 – On-Call Pay Policy
 - Last Revised – August 2, 1984
- Policy #55 – Tuition Reimbursement
 - Last Revised – August 1994
- Policy #57 – Internal Requests for Employee Requests and Info
 - Created on – June 13, 1984
- Policy #67 – Substance and Alcohol Abuse Policy
 - Last Revised – January 31, 2014
- Policy #68 – Pre-Termination Hearings
 - Created on – January 31, 1989
- Policy #69 – Provisional Appointments
 - Last Revised – July 2, 1991
- Policy #73 – Employee Group Health Insurance Program
 - Created on – January 5, 1990
- Policy #75 – Holiday Pay for Shift Employees
 - Last Revised – February 19, 1991
- Policy #76 – Fees for Document Reproduction
 - Created on – August 8, 1990
- Policy #81 – Absence of EAP Employee for Less Than One Day
 - Created on – November 26, 1990
- Policy #85 – Sick Leave Donation
 - Created on – July 25, 1991
- Policy #86 – Equal Employment Opportunity
 - Last Revised – December 10, 2000
- Policy #87 – Harassing Conduct
 - Last Revised – June 23, 2017
- Policy #88 – Smoking
 - Created on – March 28, 2017
- Policy #89 – Training Expenses
 - Created on – October 13, 1992
- Policy #90 – Work Stoppages and Sick Leave Usage
 - Created on – February 15, 1993
- Policy #91 – Overtime Pay
 - Last Revised – September 21, 2016
- Policy #92 – Revised Pay Policy for Basic Education
 - Created on – November 23, 1993
- Policy #93 – Payment of Temp Employment Services
 - Created on – April 21, 1994
- Policy #96 – Equal Employment Opportunity for Temps
 - Created on – January 4, 1996
- Policy #97 – Cell Phone
 - Created on – January 26, 2004
- Policy #98 – Alternative Work Schedule
 - Created on – August 24, 1998
- Policy #100 – Work Attire
 - Created on – February 23, 1999

- **Policy #102 – General Petty Cash Fund**
 - Last Revised – September 9, 2004
- **Policy #103 – Emergency Pay**
 - Created on – May 5, 2009
- **Policy #105 – Supervisory Authority to Issue Reprimands**
 - Created on – April 21, 2010
- **Policy #106 – FMLA**
 - Created on – August 3, 2010
- **Policy #107 – Background Investigations**
 - Created on – June 26, 2017
- **Policy #109 – Administrative Hearing**
 - Created on – October 15, 2014

Appendix 3-C

Human Resources Hiring Activities**June 2016 - December 2016**

Month	Year	New Hires	Resignations	Terminations	Ended DROP	Retirement
June	2016	10	15	5	1	2
July	2016	15	7	1	0	3
August	2016	16	8	5	2	1
September	2016	2	5	1	3	0
October	2016	19	14	0	5	0
November	2016	33	5	3	2	1
December	2016	41	2	3	4	1
Totals		136	56	18	17	8

136 New Hires**73% Left (99 Employees)**

Human Resources Hiring Activities

January 2017 - December 2017

Month	Year	New Hires	Resignations	Terminations	Ended DROP	Retirement
January	2017	24	6	7	0	3
February	2017	14	8	2	4	1
March	2017	31	8	12	1	0
April	2017	31	6	5	7	3
May	2017	27	13	7	6	2
June	2017	22	6	9	5	0
July	2017	31	8	5	0	1
August	2017	27	12	10	1	2
September	2017	23	17	9	6	0
October	2017	42	16	10	4	0
November	2017	8	6	2	2	0
December	2017	43	6	4	1	2
Totals		323	112	82	37	14

323 New Hires

76% Left (245 Employees)

Human Resources Hiring Activities

January 2018 - April 2018

Month	Year	New Hires	Resignations	Terminations	Ended DROP	Retirement
January	2018	19	6	2	1	0
February	2018	17	3	3	1	0
March	2018	23	4	7	4	2
April	2018	56	15	2	1	0
Totals		115	28	14	7	2

115 New Hires

44% Left (51 Employees)

Note: An employee unofficially resigned on 3/22/18; however, the resignation is reflected in April

Appendix 3-D



ATTACHMENT A
SEWERAGE & WATER BOARD OF NEW ORLEANS
HOW TO DISPUTE A WATER BILL

S&WB Customers can initiate a bill complaint if they want to dispute billing charges for water, sewer and sanitation.

If your water consumption is 50% higher than the previous month, a message will display on the left side of the bill – "Your current bill has an unusually high consumption. We encourage you to check your property for leaks." Such an increase also will start an automatic investigation into why your bill rose for that particular month.

By Phone

Our Customer Service Call Center hours are Monday through Friday, 7:00am to 7:00pm.
52-WATER or (504) 529-2837

Online

Visit Swbno.org and click Contact Us > Sewerage & Water Board Departments > Customer Service Department and select [Email the Customer Service Department.](#)

By Mail

You can mail your bill inquiry to:
Sewerage & Water Board of New Orleans
Mail Resolving Department
625 Saint Joseph Street
New Orleans, LA 70165

By Fax

You can fax your bill inquiry to: (504) 585-2455

What happens once a Customer has disputed the charges on their water bill?

The Customer Service agent who receives a bill complaint via phone, fax, e-mail or in-person will mark the bill in dispute as under investigation. You should continue to pay an amount similar to your typical monthly bill.

We will send you a letter, indicating we have received your complaint and we will be reviewing your account. You will also receive an update every 30 days until the complaint is resolved.

Our Bill Adjustment Department will review your account information within the billing system to determine what caused the high bill.

The Bill Adjustment Department will:

- Look at your account's meter readings to determine if your meter is functioning properly.
- Review the S&WB work order system for any repairs that may have been done in the area that could have affected the customer's billing.
- Review the account history to confirm the consumption is within the normal high/low range of your monthly water usage for the past 12 months at that location. Every customers' water usage varies each month, and every bill includes a different number of days of usage. If the disputed water usage falls within this range, no adjustment will be made, and the full amount will be due.
- If the reading falls outside of this range, a service order will be issued to the Meter Reading Department for an inspector to examine the meter and inside fixtures to determine if there is a leak on the property.

The Meter Reading Department will:

- Call you to schedule an appointment with our Inspector. You may choose to be present or not. If you are not present for the inspection, we will only be able to examine the meter and outside fixtures.
- Record their findings in the billing system. The Bill Adjustment Department will retrieve the completed investigation information.

If the investigation has not completed by the time the following month's bill is mailed, the subsequent bill will inform you in the Important Information section that the previous bill's charges are under investigation. The amount due on this bill will only reflect the charges for that billing period, and will not require payment of the prior bill's charges that are under investigation. This new bill and all following bills should be paid in full.

During the investigation period, if a following month's bill also has charges you believe are incorrect, you should contact the Sewerage and Water Board to request that the charges from the subsequent bill be included in the investigation. You will once again be asked to pay an amount similar to your typical bill.

After the investigation is complete, you will receive a letter which notifies you that we found one of the following:

- A leak on your property - You are responsible to have the leak repaired. You must notify us in writing with proof of the repairs. Proof consists of a statement of work by a licensed plumber or a signed letter from you stating the extent of the repairs completed with copies of any receipts for supplies. After we receive a meter reading that indicates your water usage has returned to normal, we will adjust 50% of the excess sewer fees and 50% of the excess water fees for leaks that occurred above ground, such as leaking fixtures. We will adjust 100% of the excess sewer fees and 50% of the excess water fees for leaks that occurred in underground pipes. Normal usage is considered the average of the two most recent actual meter reads before the leak occurred. Excess sewer and water usage is considered water and sewer used above that of your normal usage.
- A leak that was the responsibility of the S&WB - We will remove 100% of the excess sewer fees and 100% of the excess water fees from your bill.

An unexplained high bill – When there is no clear cause of the high bill, and the following month's usage returns to normal, we will make a once per year adjustment of your water consumption to match your account's last actual meter reading that is similar to your account's normal water usage. If your water usage on your following bills continues to be high, you will be notified that you should check your house plumbing for leaks. No adjustment will be made in this case.

If you are not satisfied with the results of the investigation, you may request a hearing before our Administrative Hearing Officer. You may request a hearing by calling Customer Service at 52-WATER, writing to us at Sewerage & Water Board of New Orleans, Bill Adjustments Department, 625 Saint Joseph Street, New Orleans, LA 70165, or you may complete the [online form](#).

For questions regarding your investigation or your hearing, you may [Contact the Customer Service Department](#).



SEWERAGE & WATER BOARD OF NEW ORLEANS
Inter-Office Memorandum

DRAFT / INCOMPLETE

DATE: May 25, 2018
FROM: Jacqueline K. Shine, Utility Services Administrator – Customer Relations
TO: Jade Brown-Russell, Acting Executive Director
RE: Response to City Council

(1) Page 2

- b)
- c)
- d)

Page 3

- e)
- f)
- g)
- h)

Page 4

Page 5 (3) Metrics for Employees and Contractors

c) What mechanism do S&WB employees have to recommend improvements in customer service?

Employees can provide feedback to the Executive Management Team, The Customer Relations Manager and any supervisor in Customer Service.

o) Is the call center understaffed? If so, why?

Yes, the call center is understaffed.

- *Space limitations – We have 30 operator stations and take an average of 1,000 calls per day. Our abandon call rate is approximately 30%. We need an additional 15 operators to adequately respond to citizen inquiries. We do not have additional space or funding to expand the call center at the Saint Joseph Street building.*
- *Training & Employee Development – New employees need continuous training and refresher courses on best practices in customer service, the newly installed billing system, the RJN work order system, the Invoice Cloud payment processing system and updates to SWB work in progress. We train using other employees and supervisors. This is inadequate. We are in need of a formal*

training program, with a separate location and dedicated trainers – specifically tasked with training and updating Customer Service Representatives.

- *Employee Turnover – With the high volume of customer complaints and billing inaccuracies, retaining good employees has been a challenge.*

p) What is the process a citizen must go through to appeal (dispute) their water bill?

Please see ATTACHMENT A

q) Who is responsible for hearing appeals?

Customers not satisfied with the decision of the hearing officer may request a rehearing through the SWB Legal Department or make an appeal to the Civil District Court for the Parish of Orleans. Please see ATTACHMENT B

r) Who has the final authority to say that a water bill can be adjusted?

The Administrative Hearing Officer.

s) If water usage spikes beyond normal usage for the meter, is there a mechanism in place to trigger an automatic review?

The billing system does not calculate normal usage for each individual meter. The system will flag residential accounts

t) Who is responsible for maintaining the payment function of the website?

Revenue/Customer Services with support from Information Systems.

u) How many employees are reading meters? Do we need more employees? Would installing smart meters resolve this problem?

We have 38 trained readers, reading meters. Yes, we need more employees.

There are 56 positions budgeted. If all 56 positions were filled and the employees came to work, we would resolve the majority of our billing problems.

The remaining Meter Reader positions include:

4 – Vacant Positions

7 – In Training

6 – Out injured on Worker's Compensation

1 – Working in the Commercial Meter Unit

Installing smart meters would resolve a large portion of the problems with incorrect bills getting to customers, if the implementation is successful and the systems are integrated properly. There will still be a need for Meter Reading inspectors to conduct investigations, maintain the meters and turn water off/on.

v) Are there enough employees to help with appeal of S&WB bills?

No, there are not enough employees. We need an additional 20 positions to adequately address bill complaints, accurately and timely.

Appendix 3-E

 <p>Sewerage and Water Board of New Orleans 625 St. Joseph Street Cedric S. Grant, Executive Director</p>	Policy Memorandum No: 109
	Issued October 15, 2014
	ADMINISTRATIVE HEARING POLICY
TO: All Sewerage and Water Board Employees	

PURPOSE

The Sewerage and Water Board of New Orleans is charged with the responsibility of providing sewer, water, and drainage services to the city of New Orleans, and must enforce certain health and environmental rules, regulations and laws in conjunction with same. Therefore, the administrative adjudication policy has been developed to outline procedures that may be used not only to levy certain fines, penalties, costs and fees for violations of federal, state and local laws and Board rules and regulations, but also to assist the Board in the performance of its operations where applicable. However, nothing herein shall prevent, hinder or restrict the General Superintendent and/or Executive Director from exercising the authority granted to them by law to take appropriate remedial and preventative action as may be needed, without the need for an administrative hearing.

ADMINISTRATIVE HEARING PROCEDURES

DEFINITIONS

The following words, terms and phrases, when used in this policy, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Decision or ***order*** means an administrative act of the hearing officer under the authority of this article.

Director means the Executive Director of the Sewerage and Water Board of New Orleans.

Permit or ***license violation*** means any permit or license issued by the Sewerage and Water Board of New Orleans on the basis of incorrect, inaccurate, or incomplete information, or based upon any false or fraudulent statement or misrepresentation.

Respondent or alleged violator means any person, including any landowner or any tenant, any representative and/or any authorized agent of a landowner who has been given a notice of violation under this article.

Violator means a person who has been found liable for a violation or ordered to correct a violation in an order issued under this article.

APPOINTMENT OF HEARING OFFICER

- (a) Administrative adjudication proceedings under this article shall be conducted before a hearing officer appointed by the Executive Director. In his/her discretion, the Executive Director may appoint as a hearing officer a person who shall have been licensed to practice law in the state for at least two years.
- (b) The Executive Director may appoint hearing officers to hear administrative adjudications on issues arising in the course and scope of the operation of the Sewerage and Water Board of New Orleans, as more fully described herein. A hearing officer shall be sworn before the Special Counsel of the Sewerage and Water Board of New Orleans to uphold the constitution and laws of the state and the charter and ordinances of the city and to abide by the provisions of the state and city codes of ethics before assuming office.

AUTHORITY OF HEARING OFFICER

Hearing officers who have been appointed and sworn in shall have the authority to hear and decide not only violations of the Rules and Regulations of the Sewerage and Water Board of New Orleans, but also to assist the Sewerage and Water Board in the performance of its operations. Adjudication authority of the hearing officer shall include, but not be limited to, the following:

- (1) Environmental violations;
- (2) Plumbing Code violations;
- (3) Customer service matters;
- (4) Billing disputes;
- (5) Sanitation charges;
- (6) Permit and license violations;
- (7) Termination of water and sewer services;
- (8) Municipal Code violations of water, drainage and sewer operations.

POWERS OF HEARING OFFICERS

The hearing officer shall have the power to:

- (1) Administer oaths and affirmations;

- (2) Issue orders compelling the attendance of witnesses, respondents and violators and the production of documents;
- (3) The hearing officer may, for each separate violation, order the payment of fines, penalties and hearing costs and fees.
- (4) The hearing officer, for good cause, may suspend all or a portion of his/her final order and may make any suspension contingent on the fulfillment of some reasonable condition.
- (5) Order violators to correct violations within a stipulated time;
- (6) Take necessary and lawful measures to appropriately resolve disputes, to include adjustments according to law of any charges, obligations or fines concerning the operations of the Board which are within the Adjudication Authority of the hearing officer as set forth in the previous paragraph, to effect corrections of any violations if the violator fails to do so within the time allocated by the hearing officer;
- (7) Order payment of the costs of such correction;
- (8) Suspend or revoke a permit or license issued under the provisions of the city code, or other Sewerage and Water Board Rules and Regulations, whenever the permit or license is determined to have been issued in error, on the basis of incorrect, inaccurate, or incomplete information, or based upon any false or fraudulent statement or misrepresentation, or in violation of any city code, or any Rules and/or Regulation of the Sewerage and Water Board;
- (9) Issue orders terminating services according to law.

ADMINISTRATIVE HEARING PROCEDURE SOUGHT BY CUSTOMERS/USERS:

- (1) The sewerage and/or water service will not be terminated until a hearing is had before the Administrative Hearing Officer where the customer/user is given an opportunity for an impartial evidentiary hearing to present their side of the dispute. For a customer/user to request an administrative review of a billing dispute, Customer Service matter, sanitation charge issue, reasons for termination of services or any other matter under which the Hearing Officer has authority, he/she must:
 - (a) For Administrative review of reasons for termination of services:
 - i. File a Request For Administrative Review within 10 days of the date of the Termination of Services Notice that was sent by the Sewerage and Water Board
 - (b) For Administrative review of a billing dispute, Customer Service matter, or any other matter under which the Hearing Officer has authority:
 - i. File a Request for Administrative Review within 90 days of when customer/user has reasonable notice of the issue or dispute.

- (2) The Request for Administrative Review requested by the customer/user shall:
 - (a) Be in writing;
 - (b) Provide the municipal address of the property at issue;
 - (c) Provide the date when customer/user had reasonable notice of the issue or dispute;
 - (d) Provide sufficient facts of the issue to be reviewed and action sought;
 - (e) Provide the mailing address and telephone number of the customer/user.

ADMINISTRATIVE HEARING PROCEDURE SOUGHT BY SEWERAGE AND WATER BOARD:

- (1) Whenever the Sewerage and Water Board determines that a violation of its policies, procedures, rules or codes exists, or orders issued thereunder, such as plumbing or environmental code violations, or any other matter under which the Hearing Officer has authority, it must issue Notice of Violation to the customer/user.
- (2) The notice shall:
 - (a) Be in writing;
 - (b) Provide the municipal address of the cited property;
 - (c) Provide the date of the inspection/delinquency;
 - (d) Provide notice of the alleged violations at the cited property;
 - (e) Provide the mailing address and telephone number of the Sewerage and Water Board;
 - (f) Provide the time, date, and location of the administrative hearing whereby the alleged violations shall be adjudicated;
 - (g) Provide notice that the failure to appear at the hearing shall be considered an admission of liability for the charged violation(s);
 - (h) Provide the risk of fees, penalties, costs, and liens that may be imposed for continued violation(s); and
 - (i) Provide the risk of remedial measures that may be ordered by a hearing officer to correct or abate the violation(s).

PROCEDURE FOR HEARING

- (1) Prior to holding an administrative hearing pursuant to this Policy, the Customer/User/Alleged Violator shall be notified at least 10 days in advance of the date that such a hearing is scheduled, unless otherwise provided. Notice shall be personally served or sent to the alleged violator by regular and certified or registered U.S. Mail at either the address listed in the assessor's office of the parish, or in the case of a customer/user requested administrative hearing, at the

address listed on his Request for Administrative Review. The date of the postmark shall be deemed to be the date of delivery. Any notification so sent and returned by the U.S. Post Office shall be considered as having fulfilled the notification requirement. Proof of notification and attempts at service shall be entered in the record for each case prior to the hearing.

- (2) Any Customer/User/Alleged Violator may present any relevant evidence and testimony at this hearing and may be represented. A Customer/User/Alleged Violator's physical presence shall not be required at the hearing if documentary evidence, duly verified by such person, is submitted to the Administrative Hearing Officer, prior to the date of the hearing. Nothing contained herein shall be construed to limit the authority or the ability of a hearing officer to determine one's liability or guilt based solely upon submitted documentary evidence.
- (3) Any order compelling the attendance of witnesses or the production of documents may be enforced by the municipal court or by any other court of competent jurisdiction.
- (4) A continuance may be granted upon request, with good cause shown.
- (5) Any administrative adjudication hearing held under the provisions of this policy shall be conducted in accordance with the rules of evidence of the Administrative Procedure Act, R.S. 49:950 *et seq.* Testimony of any person shall be taken under oath and shall be recorded.
- (6) Interlocutory orders shall be served in the manner provided by any specifically applicable state law or, if no other law applies, by a duly commissioned peace officer by personal or domiciliary service provided that interlocutory orders may be served by mail on a respondent who has actually been served with a notice of violation or who has made an appearance
- (7) The hearing officer shall issue a final order, judgment, or notice of judgment within 30 days of the hearing, excluding holidays. A copy of the final order, judgment, or notice of judgment may be personally served or shall be sent to the customer/user/violator and his attorney, if any, by regular and certified or registered U.S. Mail within 14 days of issuance. The order, judgment, or notice of judgment shall:
 - (a) Be signed by the hearing officer;
 - (b) State whether or not the alleged violator is guilty or liable of each violation and any specific determinations thereto, if applicable;
 - (c) Provide the reasons for the decision and the evidence relied upon;
 - (d) Provide the amount of fees, costs, and penalties assessed for each violation, if applicable;
 - (e) Provide the defects to be corrected and the extent by which each violation shall be corrected, repaired, and/or abated, if applicable;
 - (f) Provide the reasonable period of time by which each violation shall be corrected, repaired, and/or abated, if applicable;

- (g) Notify the violator(s) of their right to appeal; and
- (h) Notify the violator(s) that the Sewerage and Water Board may act to abate violation(s) if the violator fails to act in accordance with the order, judgment, or notice of judgment, where applicable.

REHEARING

- (1) A decision or order in a case of adjudication shall be subject to rehearing, reopening or reconsideration within 10 days from the date of its entry. The grounds for such action shall be either that:
 - (a) The decision or order is clearly contrary to the law and the evidence;
 - (b) The party has discovered since the hearing evidence important to the issues which he/she could not have with due diligence obtained before or during the hearing;
 - (c) There is a showing that issues not previously considered ought to be examined in order properly to dispose of the matter; or
 - (d) There is other good ground for further consideration of the issues and the evidence in the public interest
- (2) The petition of a party for rehearing, reconsideration or review, and the order of the Administrative Hearing Officer granting it, shall set forth the grounds which justify such action. Nothing in this procedure shall prevent rehearing, reopening or reconsideration of a matter by the Sewerage and Water Board in accordance with other statutory provisions applicable, or, at any time, on the ground of fraud practiced by the prevailing party or of procurement of the order by perjured testimony or fictitious evidence. On reconsideration, reopening or rehearing, the matter may be heard by the Administrative Hearing Officer, or it may be referred to a subordinate deciding officer. The hearing shall be confined to those grounds upon which the reconsideration, reopening or rehearing was ordered. If an application for rehearing shall be timely filed, the period within which judicial review, under the applicable statute, must be sought, shall run from the final disposition of such application.

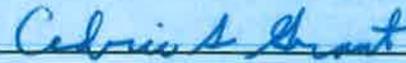
APPEAL

Any final order of the hearing officer may be appealed to the Civil District Court for the Parish of Orleans. Such appeal shall be instituted by filing, within 30 days of the hearing officer's order, a petition with the clerk of the Civil District Court along with payment of such reasonable costs as may be required by the clerk of court. On the same day as the petition for appeal is filed, the customer/ user/ violator shall serve a copy on the Executive Director and a copy on the Special Counsel of the Sewerage and Water Board. After the petition for appeal has been filed, the clerk of court shall schedule a hearing and notify all parties of the date,

time and place of such hearing. Service of notice of appeal under this subsection shall not stay the enforcement and/or collection of the order or judgment unless the person, prior to filing notice of appeal in the Civil District Court, furnishes to the Executive Director, Sewerage and Water Board, security sufficient to assure satisfaction of the finding of the hearing officer relative to the fine, fee, penalty, costs of the hearing and costs, if any, of correcting the violation.

PROCEDURES NOT EXCLUSIVE

The regulations, procedures, and remedies established by this policy shall not be deemed exclusive and may be employed in the civil enforcement of a city code or Board rules and/or regulations before, during or after the employment of any other civil or criminal enforcement mechanism.

Legal Approval:		Date: <u>10/29/14</u>
Executive Director Approval		Date: <u>10/30/14</u>

Revision No.	Issue Date	Reason for Revision
	10/15/14	New Issue

POLICY UPDATE: Sewerage and Water Board of New Orleans reserves the right to review and update its policies and procedures, as deemed necessary, at any time.

Appendix 3-F

SEWERAGE AND WATER BOARD OF NEW ORLEANS

EXECUTIVE DIRECTOR OFFICE

POLICY MEMORANDUM No. 91 **September 21, 2016**

TO: **All Departments**

FROM: **Cedric S. Grant, Executive Director** *CSG*

SUBJECT: **Overtime Policy**

I. PURPOSE

The purpose of this policy is to establish the guidelines and procedures for administering overtime pay. This policy abides by City of New Orleans Civil Service Rules, as well as provisions in the Fair Labor Standards Act (FLSA) and 29 United States Code (U.S.C.), Section 207 (a).

II. SCOPE

This policy applies to all Sewerage & Water Board of New Orleans (SWBNO) employees

III. DEFINITIONS

- A. Overtime -- time worked in excess of forty (40) hours in a seven (7) consecutive day work period;
- B. Non-exempt employee -- an employee who is entitled to overtime pay under the FLSA.
- C. Level II Manager -- a first-level manager who administers the overtime policy to employees, and who reports to the Level I Manager
- D. Level I Manager -- a department head or Deputy Director
- E. Emergency Situation -- "An emergency situation is defined as an unexpected, unforeseen event endangering life or property, which demands immediate action or attention to remedy." -- as defined in the Rules of the City of New Orleans Civil Service Commission (Civil Service): Rule IV, Section 9: subsection 9.7 (b)

IV. RESPONSIBILITIES

A. Employee – is responsible for maintaining the following to be considered eligible for overtime:

1. Satisfactory work performance during regular work hours or overtime periods;
2. Satisfactory attendance record;
3. Satisfactory attitude toward job assignments; and
4. Accurately reporting all overtime pay data on time sheets

B. Level II Managers – are responsible for:

1. Developing a list of employees to be considered for overtime;
2. Reporting the use of overtime in a timely and accurate manner to the Level I Managers (including Deputy Directors); and
3. Documenting justification for overtime

C. Level I Managers – are responsible for:

1. Recommending approval or denial of overtime to the Deputy Directors, referencing documentation provided by Level II Managers.
2. Approving or rejecting overtime that pertains to employees in specific programs or functions under their leadership (this responsibility is exclusive to Deputy Directors).
3. **Declaring an emergency situation, in which overtime may be granted by approval from the Executive Director (this responsibility is exclusive to Deputy Directors).**

V. PROCEDURE

A. “Pursuant to the provisions of the Fair Labor Standards Act, non-exempt employees shall be paid overtime at their appropriate rate of not less than one and one-half (1 ½) times their rate of pay for each hour worked in a work period in excess of the maximum hours allowable, which are applicable to the type of employment in which the employee is engaged.”
– In accordance with Civil Service Rule IV, Section 9: subsection 9.1

PROCEDURES continued

- B. Non-exempt employees shall be paid overtime for all hours worked in excess of forty (40) hours in a seven (7) consecutive day work period. – In accordance with 29 U.S.C. Section 207 (a).
- C. “Annual leave, sick leave, civil leave, military leave, maternity leave, as well as all other forms of leave, and official city holidays will not be counted as hours worked toward the computation of overtime at the completion of the maximum allowable hours in the respective work period.” – In accordance with Civil Service Rule IV, Section 9: subsection 9.4
- D. If it becomes necessary for a non-exempt employee to work on an official city holiday as designated by the City Council, the employee’s work schedule should be adjusted to allow another day off during that work period as a substitution for the holiday. If a substitution is not possible, then the employee shall be paid double time for working on the holiday. On New Year’s day, Mardi Gras, Independence Day, Labor Day, Thanksgiving Day, Christmas Day or on their days of observance as officially designated by the City Council, employees who are required to work shall be paid double time and one-half. – In accordance with Civil Service Rule IV, Section 9: subsection 9.5
- E. The following selection criteria shall govern the distribution of available overtime:
 - 1. All non-exempt employees within an organizational unit, performing the same or similar job duties as those required for the overtime project, shall be given an equal opportunity to work scheduled overtime provided that, in the judgment of supervisory personnel, the employees are equally capable of performing the required job tasks.
 - 2. Level II Managers shall survey their employees on a quarterly basis to develop a list of employees willing to work overtime. Employees not wishing to be considered for such overtime will be required to submit a signed statement to that effect (this statement will not affect the assignment of mandatory overtime).

PROCEDURES continued

3. Employees volunteering for overtime may be removed from consideration by the responsible supervisor only under the following circumstances:
 - a. Documented work performance (quality and/or quantity) is unsatisfactory during regular work hours or overtime periods.
 - b. Documented unsatisfactory attendance record, causing the employee to be considered unreliable. An employee should not be allowed to work overtime during any work week in which that employee was placed in non-pay status (except in designated emergency situations).
 - c. Documented disciplinary actions indicating behavior unbecoming of a SWBNO employee (violation of work rules, harassment, insubordination, etc.). After six (6) months, an employee's record shall be reviewed to determine if the unsatisfactory conditions have changed, and the employee can be reconsidered for overtime.
- F. Overtime shall be authorized only when it is not possible to adjust staffing patterns and/or employees' work schedules to provide essential services. Overtime in an emergency situation must be declared by the appropriate Deputy Director and approved by the Executive Director.
- G. The Level II Managers shall provide justification to the Level I Managers that the overtime requested is the most cost-effective and efficient method of dealing with the work load. The Level I Managers shall provide this justification to the Executive Director.
- H. Employees shall not be permitted to work overtime in excess of seven hundred and fifty (750) hours per calendar year. Only in the case of an emergency situation, declared by the appropriate Deputy Director and approved by the Executive Director, shall an employee exceed the calendar year overtime limit of seven hundred and fifty (750) hours.
- I. If a particular department shows a pattern of continuous overtime usage, the appropriate Deputy Director shall analyze the overtime in question to determine if a request for additional staff, equipment, restructuring of operations, etc. is warranted.

VI. TRAINING

- A. All employees will be trained on the contents of this policy. New employees will be instructed and trained on the contents of this policy at new hire orientation. As amendments are made to this policy, employees will be updated accordingly.

VII. RECORDS

- A. Each office and department shall maintain records of how overtime was allocated within the year. Each office and department will also keep records to be analyzed for equitable distribution of overtime to their employees.

VIII. INQUIRIES

Any inquiries concerning this policy may be addressed to the Human Resources Department at (504) 585-2023.

SEWERAGE AND WATER BOARD OF NEW ORLEANS

OVERTIME POLICY

ACKNOWLEDGMENT

THIS PAGE IS TO BE SIGNED, DATED, AND SUBMITTED TO YOUR RESPECTIVE MANAGER/SUPERVISOR IMMEDIATELY UPON RECEIPT OF THIS POLICY.

I acknowledge that I have been given a copy of Sewerage & Water Board's Policy #91 – Overtime. I understand that it is my responsibility and obligation to read this policy carefully, to ask questions of my supervisor or the Human Resources Department if there is any part of this policy I do not understand, and to be in full compliance with Policy #91 at all times.

You may contact the Human Resources Department at (504) 585-2023.

Print Name

(Date)

Signature of Employee

Appendix 3-G

RETIREMENT ELIGIBLE AS OF APRIL 30, 2018

Accountant 1	1
Accountant 2	1
Accountant 3	1
Administrative Support Supervisor 1	2
Administrative Support Supervisor 2	1
Administrative Support Supervisor 4	3
Automotive Maintenance Technician	2
Buyer 3	1
Chief Accountant	2
Drainage and Sewerage Pumping Supervisor	1
Duplicating Room Supervisor	1
Engineering Specialist	1
Engineering Technician	2
Environmental Enforcement Technician 2	2
Field Service Supervisor	1
Fleet Services Manager	1
Maintenance Engineer	1
Management Development Specialist 2	1
Management Development Supervisor	1
Networks Maintenance Technician 1	1
Networks Master Maintenance Technician 2	1
Networks Planner/Scheduler	1
Networks Quality Assurance and Safety Inspector	1
Networks Senior Maintenance Technician 1	3
Networks Senior Maintenance Technician 2	3
Networks Zone Manager 1	1
Office Assistant 2	3
Office Assistant 3	2
Office Assistant 4	1
Office Assistant Trainee	1
Office Support Specialist	8
Plumbing Inspector 2	2
Power Dispatcher 2	1
Principal Office Support Specialist	5
Public Works Maintenance Worker 1	1
Public Works Maintenance Worker 2	1
Public Works Supervisor 1	1
Pumping and Power Plant Operator	5
Pumping Plant Operator	5
Pumping Stations Supervisor	1
Pumping Stations Supervisor Assistant	3
Safety Engineer	1
Senior Office Support Specialist	5
Steam Plant Engineer 2	5
Steam Plant Engineer 4	1
Utilities Maintenance Technician 2	2
Utilities Maintenance Technician 3	2
Utilities Master Maintenance Specialist 2	1
Utilities Master Maintenance Supervisor	2
Utilities Plant Worker	2
Utilities Senior Services Manager	3
Utilities Services Administrator	4
Utilities Services Manager	2
Utility Meter Services Manager	1
Utility Meter Services Supervisor Assistant	1
Warehouse & Supplies Manager	1
Water Chemist 3	1
Water Purification Operator 1	2
Water Purification Operator 2	4
Water Purification Operator 3	2
Water Purification Operator 4	1

TOTAL: 120

DROP SUMMARY REPORT

TITLE	START	END	TIME REMAINING (yrs)	AVG TIME REMAINING (YRS)	TOTAL EMPLOYEES ON DROP
				2.83	118
OFFICE SUPPORT SPECIALIST	5/1/2013	5/1/2018	0.08		
OFFICE SUPPORT SPECIALIST	5/1/2013	5/1/2018	0.08		
NET SENIOR MAINTENANCE TECH 2	5/31/2013	5/31/2018	0.17		
NET MASTER MAINTENANCE TECH 2	6/1/2013	6/1/2018	0.17		
OFFICE ASSISTANT 3	6/3/2013	6/3/2018	0.18		
PUMPING STATIONS SUPV	7/31/2013	7/31/2018	0.33		
OFFICE ASSISTANT 3	8/1/2013	8/1/2018	0.34		
OFFICE ASSISTANT 3	8/1/2013	8/1/2018	0.34		
NET MASTER MAINTENANCE TECH 2	8/12/2013	8/12/2018	0.37		
ENGINEERING SPECIALIST	10/1/2013	10/1/2018	0.50		
NET QUALITY ASSUR & SFTY INSPC	11/1/2013	11/1/2018	0.59		
FLEET SERVICES SUPERVISOR	11/1/2013	11/1/2018	0.59		
MANAGEMNT DEVELOPMNT SPECLST 2	12/1/2013	12/1/2018	0.67		
STEAM PLANT ENGINEER 2	12/2/2013	12/2/2018	0.67		
LEGAL ADMINISTRATIVE ASSISTANT	1/3/2014	1/3/2019	0.76		
NETWORKS MAINTENANCE TECH 2	1/27/2014	1/27/2019	0.83		
PUMPING AND POWER PLANT OPR	2/1/2014	2/1/2019	0.84		
NET MASTER MAINTENANCE TECH 2	2/13/2014	2/13/2019	0.87		
PUMPING AND POWER PLANT OPR	3/1/2014	3/1/2019	0.92		
PUMPING STATIONS SUPV ASST	3/1/2014	3/1/2019	0.92		
Employees within 1 year:				20	
WATER PURIFICATION OPERATOR 3	6/4/2014	6/4/2019	1.18		
EQUIPMENT OPERATOR 2	9/1/2014	9/1/2019	1.42		
OFFICE ASSISTANT 3	10/1/2014	10/1/2019	1.50		
NETWORKS MAINTENANCE TECH 1	10/30/2014	10/30/2019	1.58		
NET SENIOR MAINTENANCE TECH 1	10/31/2014	10/31/2019	1.59		
UTILITY SENIOR SERVICES MGR	10/31/2014	10/31/2019	1.59		
MANAGEMNT DEVELOPMNT SPECLST 2	11/1/2014	11/1/2019	1.59		
PUMPING PLANT OPERATOR	11/1/2014	11/1/2019	1.59		
AUTOMOTIVE MAINT. TECHNICIAN	12/1/2014	12/1/2019	1.67		
ADMIN. SUPPORT SUPERVISOR 4	12/15/2014	12/15/2019	1.71		
NET SENIOR MAINTENANCE TECH 2	12/19/2014	12/19/2019	1.72		
PUMPING STATIONS SUPV ASST	12/31/2014	12/31/2019	1.75		
NET MASTER MAINTENANCE TECH 1	12/31/2014	12/31/2019	1.75		
STEAM PLANT ENGINEER 2	1/24/2015	1/24/2020	1.82		
PUMPING STATIONS SUPV ASST	2/1/2015	2/1/2020	1.84		
UTILITY SERVICES ADMINISTRATOR	3/1/2015	3/1/2020	1.92		
FIELD SERVICE SUPERVISOR	3/15/2015	3/15/2020	1.96		
SR. OFFICE SUPPORT SPECIALIST	3/28/2015	3/28/2020	1.99		
STEAM PLANT ENGINEER 1	3/31/2015	3/31/2020	2.00		
Employees within 2 years:				19	

DROP SUMMARY REPORT

PUMPING AND POWER PLANT OPR	8/1/2015	8/1/2020	2.34
FLEET SERVICES MANAGER	8/7/2015	8/7/2020	2.36
STEAM PLANT ENGINEER 4	9/22/2015	9/22/2020	2.48
POWER DISPATCHER 4	9/22/2015	9/22/2020	2.48
NET SENIOR MAINTENANCE TECH 1	11/1/2015	11/1/2020	2.59
FIELD SERVICE SUPERVISOR	11/1/2015	11/1/2020	2.59
NET SENIOR MAINTENANCE TECH 1	11/1/2015	11/1/2020	2.59
ADMIN. SUPPORT SUPERVISOR 3	11/26/2015	11/26/2020	2.66
CHIEF ACCOUNTANT	11/28/2015	11/28/2020	2.67
PUBLIC WORKS SUPERVISOR 2	12/2/2015	12/2/2020	2.68
NET SENIOR MAINTENANCE TECH 2	12/30/2015	12/30/2020	2.75
NET MASTER MAINTENANCE TECH 1	12/30/2015	12/30/2020	2.75
PRIN OFFICE SUPPORT SPECIALIST	1/1/2016	1/1/2021	2.76
AUTOMOTIVE SERVICES SUPERVISOR	1/8/2016	1/8/2021	2.78
UTIL MAINT MASTER SUPERVISOR	1/8/2016	1/8/2021	2.78
UTIL MAINT MASTER SUPERVISOR	1/8/2016	1/8/2021	2.78
UTIL MAINT MASTER SUPERVISOR	1/11/2016	1/11/2021	2.79
NET SENIOR MAINTENANCE TECH 1	2/1/2016	2/1/2021	2.84
NET SENIOR MAINTENANCE TECH 2	2/29/2016	3/1/2021	2.92

Employees within 3 years: 19

NET MASTER MAINTENANCE TECH 1	4/1/2016	4/1/2021	3.01
POWER DISPATCHER 3	4/1/2016	4/1/2021	3.01
OFFICE ASSISTANT 4	4/1/2016	4/1/2021	3.01
PUBLIC WORKS MAINTENANCE WKR 1	6/1/2016	6/1/2021	3.17
NET SENIOR MAINTENANCE TECH 2	6/1/2016	6/1/2021	3.17
PUBLIC WORKS MAINTENANCE WKR 1	6/4/2016	6/4/2021	3.18
LABORATORY TECHNICIAN 3	7/1/2016	7/1/2021	3.25
PUMPING STATIONS SUPV	8/1/2016	8/1/2021	3.34
PUMPING AND POWER PLANT OPR	8/1/2016	8/1/2021	3.34
UTILITY SERVICES ADMINISTRATOR	9/1/2016	9/1/2021	3.42
ADMIN. SUPPORT SUPERVISOR 4	10/8/2016	10/8/2021	3.53
PUMPING PLANT OPERATOR	11/1/2016	11/1/2021	3.59
NET SENIOR MAINTENANCE TECH 1	11/1/2016	11/1/2021	3.59
PUBLIC WORKS MAINTENANCE WKR 2	11/1/2016	11/1/2021	3.59
ENGINEER INTERN 2	12/1/2016	12/1/2021	3.67
SR. OFFICE SUPPORT SPECIALIST	12/1/2016	12/1/2021	3.67
OFFICE SUPPORT SPECIALIST	12/1/2016	12/1/2021	3.67
NET MASTER MAINTENANCE TECH 1	12/28/2016	12/28/2021	3.75
PUMPING AND POWER PLANT OPR	12/31/2016	12/31/2021	3.76
SR. OFFICE SUPPORT SPECIALIST	1/2/2017	1/2/2022	3.76
WATER PURIFICATION OPERATOR 4	1/2/2017	1/2/2022	3.76
PUMPING AND POWER PLANT OPR	1/3/2017	1/3/2022	3.76
WATER PURIFICATION OPERATOR 2	1/5/2017	1/5/2022	3.77
POWER DISPATCHER 3	1/8/2017	1/8/2022	3.78
FIELD SERVICE SUPERVISOR	2/13/2017	2/13/2022	3.88
ADMIN. SUPPORT SUPERVISOR 1	2/28/2017	2/28/2022	3.92
AUTOMOTIVE SECTION SUPERVISOR	3/1/2017	3/1/2022	3.92
ADMIN. SUPPORT SUPERVISOR 4	3/1/2017	3/1/2022	3.92

Employees within 4 years: 28

DROP SUMMARY REPORT

OFFICE ASSISTANT 2	4/1/2017	4/1/2022	4.01
ENGINEER	4/1/2017	4/1/2022	4.01
NETWORKS MAINTENANCE TECH 2	4/1/2017	4/1/2022	4.01
ADMIN. SUPPORT SUPERVISOR 4	4/1/2017	4/1/2022	4.01
NETWORKS ZONE MANAGER 1	4/13/2017	4/13/2022	4.04
NET MASTER MAINTENANCE TECH 1	5/1/2017	5/1/2022	4.09
STEAM PLANT ENGINEER 1	6/1/2017	6/1/2022	4.17
NET SENIOR MAINTENANCE TECH 1	6/1/2017	6/1/2022	4.17
NETWORKS MAINTENANCE TECH 2	6/1/2017	6/1/2022	4.17
ENGINEER INTERN 2	6/20/2017	6/20/2022	4.22
ATTORNEY 4	6/26/2017	6/26/2022	4.24
NETWORKS MAINTENANCE TECH 2	7/1/2017	7/1/2022	4.25
NET SENIOR MAINTENANCE TECH 2	7/1/2017	7/1/2022	4.25
PUBLIC WORKS SUPERVISOR 4	7/1/2017	7/1/2022	4.25
MATERIAL AND STORES SUPV	7/3/2017	7/3/2022	4.26
ENGINEERING DIVISION MANAGER	8/1/2017	8/1/2022	4.34
PUMPING AND POWER PLANT OPR	8/1/2017	8/1/2022	4.34
NETWORKS MAINTENANCE TECH 1	10/1/2017	10/1/2022	4.51
WATER SERVICE INSPECTOR 2	10/1/2017	10/1/2022	4.51
NET SENIOR MAINTENANCE TECH 2	10/1/2017	10/1/2022	4.51
PRIN OFFICE SUPPORT SPECIALIST	11/6/2017	11/6/2022	4.61
STEAM PLANT ENGINEER 1	11/7/2017	11/7/2022	4.61
FACILITIES ENGINEERING SPCL	12/29/2017	12/29/2022	4.75
UTIL METER SERVICES SUPV ASST	1/3/2018	1/3/2023	4.76
WATER PURIFICATION OPERATOR 2	1/7/2018	1/7/2023	4.78
STEAM PLANT ENGINEER 3	1/8/2018	1/8/2023	4.78
PLUMBING INSPECTION SUPV ASST	1/14/2018	1/14/2023	4.79
POWER DISPATCHER 3	1/19/2018	1/19/2023	4.81
ADMIN. SUPPORT SUPERVISOR 2	2/1/2018	2/1/2023	4.84
PRIN OFFICE SUPPORT SPECIALIST	2/1/2018	2/1/2023	4.84
BOILER PLANT OPERATOR	2/8/2018	2/8/2023	4.86
PUMPING AND POWER PLANT OPR	2/8/2018	2/8/2023	4.86

Employees within 5 years: 32

DROP SUMMARY REPORT

APRIL SUMMARY		
TITLE	EFFECTIVE DATE	ACTION
UTIL MAINT MASTER SPECIALIST 2	4/1/2018	DELETION

Appendix 3-H



Business Process Documentation

10.01	New Service Request
20.01.03	Final Billing
20.02	Move-Out Process
20.01.01/20.01.02	Customer Move-In in-person or Remote
20.02.05	Hydrant Account Finalization
20.04.01	Deposit Amount Calculation
20.05.01	Customer Complaint Initiation
20.05.02	High Bill Complaint
20.05.03	Estimated Usage Complaint
20.05.04	Crossed Meter Complaint
20.05.05	Leak Complaint Process
20.05.06	Water Outage Complaint Process
20.05.09	Miscellaneous Charges and Fees
20.05.14	Misapplied Payment Complaint
20.05.16	Hydrant Leak Complaint
20.06.01	Create a Payment Extension
20.07	Create a Payment Arrangement
25.01	Self-Service Enrollment
50.01.03	Hydrant Account Activity
50.11	City Sanitation Process
50.11.02	Add or Remove Litter Abatement
50.11.03	Add or Remove Sanitation Discount Fee
50.11.05	Sanitation Change Number of Units
50.16	School Billing
60.01	Payments on Account
60.06.01	Wire Transfer Payments
60.07	Suspense Payments
80.01	Refunds

Appendix 3-I

ACTUARIAL VALUATION REPORT

**EMPLOYEES' RETIREMENT SYSTEM
OF THE SEWERAGE AND WATER BOARD
OF NEW ORLEANS**

Annual Actuarial Valuation
as of January 1, 2018

CONEFRY & COMPANY, LLC

**ACTUARIAL AND EMPLOYEE BENEFIT CONSULTING
NEW ORLEANS, LOUISIANA**

INTRODUCTION

We present in this report the results of our actuarial valuation of the Employees' Retirement System of the Sewerage and Water Board of New Orleans as of January 1, 2018. The plan is an actuarially funded qualified governmental defined benefit pension under the Internal Revenue Code, and we have performed this actuarial valuation using conventional and generally accepted actuarial methods, assumptions, and principles applicable to qualified defined benefit pension plans. We have performed the actuarial valuation using the Entry Age Normal Cost Method. A full description of the funding method is contained in Section II of the report.

The Summary of Plan Provisions presented in the Appendix is intended to describe the principal benefits provided by the plan, particularly from the perspective of their significance in affecting the actuarial liability and cost of the plan. The summary is not, of course, intended to be a comprehensive or complete description of all benefits payable under all circumstances under the pension plan.

EMPLOYEES' RETIREMENT SYSTEM
OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS

SUMMARY

I. FINANCIAL AND ACTUARIAL STATUS
As of January 1, 2018

Market Value of Assets	\$ 235,284,317	Page 1
Actuarial Value of Assets	\$ 241,394,869	Page 2

II. EMPLOYER AND EMPLOYEE CONTRIBUTIONS
For the Plan Year Beginning January 1, 2018

Total "15 Year Amortization" Contribution (As % of Payroll)	\$ 12,636,999 (30.216%)	Page 8
Expected Total Employee Contributions (As % of Payroll)	\$ 2,091,132 (5.000%)	Page 8
Employer "15 Year Amortization" Contribution (As % of Payroll)	\$ 10,545,867 (25.216%)	Page 8
Total "30 Year Amortization" Contribution (As % of Payroll)	\$ 10,526,730 (25.170%)	Page 9
Expected Total Employee Contributions (As % of Payroll)	\$ 2,091,132 (5.000%)	Page 9
Employer "30 Year Amortization" Contribution (As % of Payroll)	\$ 8,435,598 (20.170%)	Page 9
Net Actuarial Experience		Page 10

APPENDIX

Summary of Plan Provisions	Exhibit I - P. 12
Statement of Actuarial Basis for Funding Purposes	Exhibit II - P. 20
Statement of Accounting Information for Financial Statements	Exhibit III - P. 24
Active and Inactive Participant Profiles	Exhibit IV - P. 25
Market Value and Actuarial Value Investment Performance	Exhibit V - P. 32

CERTIFICATION

Page 36

I. FINANCIAL AND ACTUARIAL STATUS as of January 1, 2018

We have conducted this actuarial valuation using employee data and asset information furnished by the administrative office of the System. This section of the report presents a summary of the assets of the plan at Market Value, as well as the development of the Actuarial Value of Assets used in the funding method. The funding method used to determine the actuarial liabilities is described in Section II and the actuarial assumptions upon which the liabilities are based are summarized in Exhibit II of the report.

ASSETS

The following table showing the composition of the assets as of December 31, 2017 is based on information supplied by the administrative office and the auditors of the System.

Table 1
Statement of Assets
as of December 31, 2017

<u>Assets</u>	<u>Market Value</u>
Cash	\$ 230,946
Investments	<u>234,711,857</u>
Total Invested Assets	234,942,803
Plus accounts receivable	+341,514
Less accounts payable	<u>0</u>
Total Assets	\$ 235,284,317 *

* The actuarial value of assets used in this valuation is Adjusted Market Value as determined in Table 2. D.R.O.P. account balances are included in the foregoing Assets and shown as an actuarial liability in Table 4, item (2)f.

ACTUARIAL VALUE OF ASSETS

Beginning with the January 1, 1998 actuarial valuation, the method of determining the actuarial value of assets was changed to adjusted market value from the former adjusted book value basis. The change had been necessitated because the former method, in our opinion and that of the auditors, was not "market value related" within the meaning of Statement No. 25 of the Government Accounting Standards Board (GASB #25) and its successor GASB Statements.

This revised method reflects actual market value performance over a seven year period ending on the valuation date. The market value performance is averaged over the seven year period by reflecting the actual external cash flow and adjusting each prior year's market value to the current valuation date using the actuarial interest assumption.

The following table develops the Adjusted Market Value of Assets to be used as the Actuarial Value of Assets in the actuarial valuation.

Table 2
Actuarial Value of Assets
As of December 31, 2017

Plan Year Ending	Beginning Market Value	Net External Cash Flow For Year	Market Value Inv. Income For Year	Ending Market Value	Market Value Performance For Year	Adj. Market Value Component
2011	205,240,285	-8,114,890	8,968,361	206,093,756	4.4578%	236,054,430
2012	206,093,756	-8,472,301	23,082,600	220,704,055	11.4351%	248,603,835
2013	220,704,055	-9,525,020	23,179,014	234,358,049	10.7339%	259,165,532
2014	234,358,049	-9,143,898	11,342,520	236,556,671	4.9416%	253,364,613
2015	236,556,671	-9,985,003	-4,144,141	222,427,527	-1.7896%	230,054,972
2016	222,427,527	-10,642,132	12,570,866	224,356,261	5.7902%	227,236,384
2017	224,356,261	-12,398,217	23,326,273	235,284,317	10.6924%	235,284,317
Years Included: 7		-68,292,418	98,336,450			
					Average Adj. MV:	\$241,394,869

II.

EMPLOYER AND EMPLOYEE CONTRIBUTIONS

for the Plan Year Beginning January 1, 2018

DESCRIPTION OF ACTUARIAL COST METHOD

Under the Entry Age Normal Cost Method, the normal cost of the plan is designed to be a level percentage of payroll, calculated on an aggregate basis, spread over the entire working lifetime of the participants. The future working lifetime is determined from each participant's hypothetical entry age into the plan assuming the plan had always been in existence, to his expected retirement date. The actuarial accrued liability is the amount of total liability not covered by future entry age normal costs. This amount is composed of the actuarial value of benefits already funded (assets) and those not yet funded (unfunded actuarial liability).

The plan's funding cost for the year is the sum of the Entry Age Normal Cost and the amount necessary to amortize the remaining unfunded actuarial liability as of the valuation date over the adopted amortization period.

Beginning with the January 1, 2007 actuarial valuation, a new amortization basis was established. The former amortization basis used a level dollar amortization for a ten (10) year "closed" (that is, with the remaining period reducing by one each year) amortization period from January 1, 2003 through December 31, 2012. This was replaced by level dollar amortization for "open" (that is, a constant number of years) ten (10) year amortization and thirty (30) year amortization periods effective on each valuation date. Effective with this actuarial valuation as of January 1, 2018, we present the amortization on closed periods of fifteen (15) years and thirty (30) years. These amounts are developed later in this section and presented in Tables 5 and 6.

Table 3
Entry Age Normal Cost for Plan Year
Beginning January 1, 2018

(1)	Actuarial Present Value at Entry Age of Expected Benefits to Plan Participants	\$ 22,275,003
(2)	Actuarial Present Value at Entry Age of Future Payroll of Active Participants	204,297,107
(3)	Normal Cost as a Percentage of Payroll: (1) divided by (2)	10.903%
(4)	Current Payroll of Active Participants *	41,822,648
(5)	Normal Cost: (3) x (4) (Assumed payable January 1, 2018)	\$ 4,559,923
(6)	Normal Cost, adjusted for monthly payments	\$ 4,704,433

* There are 1,083 active participants: 479-fully vested; 0-partially vested; 604-not vested.

Table 4
Unfunded Actuarial Liability
as of January 1, 2018

(1)	Actuarial Present Value of Expected Benefits to Active Plan Participants		
	(a) Basic and Supplemental Retirement Benefit	\$ 96,656,313	
	(b) Death and Survivor Benefit	6,090,160	
	(c) Disability Benefit (Inc. suppl & surv.)	8,448,295	
	(d) Vesting Benefit	8,481,147	
	(e) Refund of Employee Contributions	<u>2,180,172</u>	
	Total Active		\$ 121,856,087
(2)	Actuarial Present Value of Expected Benefits to Inactive Plan Participants		
	(a) Regular Retirees	\$ 147,432,949	
	(b) Disability Retirement	7,534,188	
	(c) Survivors	7,904,121	
	(d) Terminated Vested	1,856,386	
	(e) D.R.O.P. Retirees (Future Benefits)	44,307,270	
	(f) D.R.O.P. Retirees (Account Balances)	<u>11,610,897</u>	
	Total Inactive		\$ 220,645,811
(3)	Total Actuarial Present Value of Expected Benefits to All Plan Participants (1) + (2)		342,501,898
(4)	Actuarial Present Value of Future Payroll of Active Participants		243,678,107
(5)	Normal Cost as a Percentage of Payroll: (From Table 3)		10.903%
(6)	Actuarial Present Value of Future Normal Cost Contributions: (4) x (5)		26,568,224
(7)	Actuarial Value of Assets (from Table 2)		241,394,869
(8)	Unfunded Actuarial Liability: (3) - (6) - (7)		74,538,805

TOTAL CONTRIBUTION FOR PLAN YEAR BEGINNING January 1, 2018

Contribution to Amortize the Unfunded Actuarial Liability over 15 years

The amount of the contribution for a plan year equals the normal cost plus the level dollar amount necessary to amortize the Unfunded Actuarial Liability. The annual amount required to amortize the Unfunded Actuarial Liability of \$74,538,805 over 15 years at 7% annual interest (assuming monthly payments) is \$7,932,566.

Table 5

Total "15 Year Amortization" Contribution for the
Plan Year Beginning January 1, 2018

(1)	Normal Cost (From Table 3; assumed payable monthly)	\$ 4,704,433	
(2)	Net Annual charge Required for Amortization of Unfunded Actuarial Liability Over 10 year period beginning January 1, 2018 (See Above; Assumed payable monthly)	7,932,566	
(3)	Total Plan Contribution as of January 1, 2018: (1) + (2)	\$ 12,636,999	(30.216%) *
(4)	Annual Employee Plan Contributions as of January 1, 2018 (See note below)	\$ 2,091,132	(5.000%) *
(5)	Employer Contribution as of January 1, 2018: (3) - (4) (Assumed payable monthly)	\$ 10,545,867	(25.216%) *

* Expressed as a percentage of annual participant payroll of \$41,822,648.

Note: Current actual employee contribution is 6% of payroll effective January 1, 2015. By Board Resolution R-248-2014, as long as the Retirement System is not 100% funded, the Employer Contribution percentage shall be calculated as if the Employee Contribution percentage has remained at 5% of payroll.

Contribution to Amortize the Unfunded Actuarial Liability over 30 years

The amount of the contribution for a plan year equals the normal cost plus the level dollar amount necessary to amortize the Unfunded Actuarial Liability. The annual amount required to amortize the Unfunded Actuarial Liability of \$74,538,805 over 30 years at 7% annual interest (assuming monthly payments) is \$5,822,297.

Table 6
Total "30 Year Amortization" Contribution for the
Plan Year Beginning January 1, 2018

(1)	Normal Cost (From Table 3; assumed payable monthly)	\$ 4,704,433	
(2)	Net Annual Charge Required for Amortization of Unfunded Actuarial Liability Over 30 year period beginning January 1, 2018 (see above) (Assumed payable monthly)	5,822,297	
(3)	Total Plan Contribution as of January 1, 2018: (1) + (2)	\$ 10,536,730 (25.170%)	*
(4)	Annual Employee Plan Contributions as of January 1, 2018 (See note below)	\$ 2,091,132 (5.000%)	*
(5)	Employer Contribution as of January 1, 2018: (3) - (4) (Assumed payable monthly)	\$ 8,435,598 (20.170%)	*

* Expressed as a percentage of annual participant payroll of \$41,822,648.

Note: Current actual employee contribution is 6% of payroll effective January 1, 2015. By Board Resolution R-248-2014, as long as the Retirement System is not 100% funded, the Employer Contribution percentage shall be calculated as if the Employee Contribution percentage has remained at 5% of payroll.

NET ACTUARIAL EXPERIENCE
for the Plan Year Beginning January 1, 2017

Actuarial experience refers to the comparison of actuarial results of each valuation with those expected from the previous valuation according to the actuarial assumptions. A decrease or increase in the Total Plan Contribution as a percentage of payroll is indicative of favorable (gains) or unfavorable (losses) experience, respectively. If the overall experience follows the general pattern indicated by the assumptions presented in the Appendix, the Total Plan Contribution (on a given amortization basis) as a percentage of payroll will remain relatively stable, except for routine fluctuations.

The total 15 year amortization contribution as a percentage of payroll decreased from 30.406% for the plan year beginning January 1, 2017 to 30.296% for the plan year beginning January 1, 2018. The total 10 year amortization contribution as a percentage of payroll decreased from 25.235% for the plan year beginning January 1, 2017 to 25.170% for the plan year beginning January 1, 2018. These decreases of 0.110% and 0.065% of payroll, respectively, are indicative of an overall actuarial gain for the most recent plan year. This gain represents the net decrease in the total plan contribution as the combined result of actuarial experience and the change in total plan contribution attributable to plan amendments, if any.

APPENDIX

EXHIBIT I

EMPLOYEES' RETIREMENT SYSTEM OF THE
SEWERAGE AND WATER BOARD OF NEW ORLEANS

SUMMARY OF PLAN PROVISIONS

<u>EFFECTIVE DATE:</u>	Authorized by Act Number 551, effective January 1, 1957; Last Restatement for Plan Qualification, January 27, 2011; Latest Restatement, April 17, 2013; last amendment date as of the date of performance of this valuation, November 19, 2014.
<u>MEMBERSHIP:</u>	Employees who become members as a condition of employment.
<u>CREDITABLE SERVICE:</u>	Prior service plus membership service for which credit is allowable. Also, one year service credit given for every 250 days of unused sick and annual leave. Credit for prior military service may be purchased (maximum 4 years) by active contributing member who is vested; lump sum payment required based on 4% of excess over first \$100 monthly average for each month claimed plus 7% compound interest. Military service available only to those who will not receive a benefit from another retirement system (except Social Security). There are also provisions for restoring service on behalf of certain leaves without pay such as for Katrina Disaster Leave and Workers' Compensation.
<u>EARNABLE COMPENSATION:</u>	Annual compensation paid to an employee; excluding on-call and stand-by pay or over-time.
<u>AVERAGE COMPENSATION:</u>	Average annual earned compensation of a member for highest thirty-six successive months of service as a member, minus \$1,200. For employees hired after December 31, 1995, the \$1,200 reduction was not applicable. Effective June 19, 2002, the \$1,200 reduction was eliminated for all employees. Periods without compensation are not used in determining the average compensation. For employees not yet eligible to retire as of December 31, 2014, the thirty-six month period was changed to forty-eight months effective January 1, 2017 and sixty months effective January 1, 2018.
<u>EMPLOYEE CONTRIBUTIONS:</u>	4% of earnable compensation through December 31, 2012; effective January 1, 2013, 5% of earnable compensation; effective January 1, 2015, 6% of earnable compensation. By Board Resolution R-248-2014, as long as the Retirement System is not 100% funded, the Employer Contribution percentage shall be calculated as if the Employee Contribution percentage has remained at 5% of payroll.

EXHIBIT I (Continued)

EMPLOYER CONTRIBUTIONS:

Certain percentage of earnable compensation of each member, determined on basis of regular interest and mortality tables adopted by the Board, and additional percentage of earnable compensation, determined by actuary.

RETIREMENT BENEFITS:

Eligibility:

Any age with 30 years of Service; age 60 and 10 years of Service; effective January 1, 1996, age 65 and 5 years of Service; age 70 with any Service. Effective June 19, 2002, age 60 and vested (with actuarial reduction) and any member whose age and service total 80 or more years may retire without reduction for age.

Benefits:

Retirement allowance, consisting of (1) and (2) below:

- 1) An annuity, which is the actuarial equivalent of employee's accumulated contribution; plus
- 2) An annual pension, which, together with above annuity, provides total retirement allowance equal to 2% of average compensation times first 10 years, plus 2 1/2% of average compensation times next 10 years, plus 3% of average compensation times next 10 years, plus 4% of average compensation times creditable service over 30 years. Effective June 19, 2002, the above percentages were changed to 2.5% for the first 25 years plus 4% for years over 25 years.
- 3) An additional annual pension equal to 2% of \$1,200 times first 10 years, plus 2 1/2% of \$1,200 times next 10 years, plus 3% of \$1,200 times next 10 years, plus 4% of \$1,200 times service over 30 years; if the employee was hired prior to 1996 and retires prior to age 65 on retirement allowance. Ceases at age 65 or receipt of first Social Security check, whichever comes first. Effective June 19, 2002, this additional benefit no longer applies except to those who retired prior to that date.
- 4) For service retirement prior to age 62 with less than 30 years of Service, (2) and (3) above are reduced by 3% for each year rounded to nearest day below the age of 62.
- 5) Effective January 1, 1997, a member may retire after 30 years of service, regardless of age, with no reduction in his benefit.
- 6) Maximum Benefit: Benefit no greater than 100% of average compensation, unless member has already accrued a larger benefit as of April 13, 1977.

EXHIBIT I (Continued)

7) Form of Benefit: Modified cash refund annuity. If a member dies after retirement and before receiving the amount of his accumulated contributions in annuity and pension payments, then lump sum balance of his contributions is paid to beneficiary.

8) Cost-of-Living: Effective July 1, 1992, for members that retired prior to January 1, 1984, if funds are available, each July 1st a 2% increase times the number of years retired will be given to members over age 65.

For members that retired on or after January 1, 1984, and are over age 65, each January 1st, increases in benefits based on the increase in the CPI, not to exceed 2%.

Spouses receiving a Joint and Survivor Annuity that have reached the age of 65 shall also receive an increase, based on the increase in the CPI, not to exceed 2%.

DISABILITY BENEFITS:

Eligibility:

10 years of credited service. (certified by physician nominated by Board).

Benefits:

1) A retirement allowance equal to the greater of: An annuity, which is the actuarial equivalent of the member's accumulated contributions at retirement; or

2) An annual pension equal to 75% of the accrued benefit based on service credits to the member had he continued in service until age 62.

3) Benefit offset by Workmen's Compensation benefits.

4) Effective 1/1/84, disability allowance is subject to the same COLA after age 65 as regular retirement.

DEATH BENEFITS:

Eligibility:

Death of member in active service.

Benefits:

Employee's accumulated contributions paid to beneficiary.

1) If member has 3 years Creditable Service, but less than 10 years, a lump sum benefit equal to the Member's accumulated contributions and 25% of the member's prior year earned compensation is payable to the designated beneficiary or estate.

EXHIBIT I (Continued)

2) If member dies in active service with less than three years Creditable Service, a Lump Sum Benefit equal to the Member's accumulated contributions is payable to the designated beneficiary or estate.

3) If, at date of death, member was eligible for retirement and leaves Surviving Spouse, Surviving Spouse shall be eligible for a Joint and 100% benefit or a lump sum refund of Employee's contributions.

4) If, at date of death, member was ineligible for retirement, but had at least 10 or more years of creditable service, then surviving spouse shall receive benefit equal to 80% of the former member's accrued benefit at death, payable at the later of the member's death or spouse's attainment of age 62.

5) If, at date of death, member was receiving a disability benefit and dies, his spouse shall receive 80% of the former member's disability retirement allowance payable at the later of the retiree's death or spouse's attainment of age 62. Eligible children shall receive 65% of the disability benefit payable until they reach age 18, age 25 if the child attends school full time or is mentally or physically disabled or until the spouse attains age 62.

6) The spouse's benefit shall be subject to the COLA after attaining age 65 as for a regular retiree.

SEPARATION BENEFITS:

1) A member that withdraws from service before age 60 with 10 years of Creditable Service may allow his accumulated contributions to remain on deposit until he is eligible to receive a separation retirement allowance. Effective June 19, 2002, only 5 years of Creditable Service is required.

2) Upon withdrawal without 10 years Creditable Service (or, after June 19, 2002, 5 years) Employee is entitled to a refund of his accumulated contributions or may allow contributions to remain on deposit for maximum of five years. In case of employee's death, accumulated contribution are paid to designated beneficiary.

Note:

If employee re-enters after receipt of refund and continues service thereafter for 18 months, he may repay amount of refund plus the amount of employee contributions, with interest at a rate of 4% for service prior to 1970 and 7% compounded annually to date of payment for service after January 1, 1970, to receive prior creditable service again.

EXHIBIT I (Continued)

OPTIONAL FORMS OF BENEFIT:

1) A member shall receive a retirement allowance payable for life. If he dies before receiving, in annuity payments, the value of his annuity at the time of his retirement, the balance is payable to his beneficiary.

2) A reduced benefit payable for the life of the member and continued to beneficiary after member's death. A specific percentage is chosen by the member at the time of retirement. Such percentage shall be an integral multiple of 5%, to a maximum of 100%.

3) A reduced benefit payable for the life of the member and 100% of that amount is paid to the spouse after member's death.

RECIPROCITY:

Effective July 16, 1974, provisions made for reciprocal transfers of service and funds between this System and Employees' Retirement System of the City of New Orleans, in the event an employee transfers from one employing agency to the other; service credits were transferred from sending system to receiving system provided all employee contributions plus earned interest and all employer contributions plus agreed-upon interest were transferred; effective September 23, 1993 (retroactive for transfers on and after October 17, 1988), agreement was amended to provide for a transfer from the sending system to the receiving system equal to the GASB #5 liability of the sending system at 7% interest, 5% salary scale, the remaining GASB #5 actuarial assumptions and the salary and benefit structure in effect for the sending system at time of transfer.

DROP ACCOUNT:

Effective January 1, 1996, any member who is eligible for a service retirement under Section 6(1) can participate in the DROP program:

1) A member can only participant once, and only up to three years. Effective June 19, 2002, the allowable period was increased to 5 years.

2) When a member joins the DROP, he stops contributing to and earning benefits in the system. Employer contributions also stop. His retirement benefit begins being paid into his DROP account.

EXHIBIT I (Continued)

3) Interest is credited to the separately invested DROP accounts at the actually earned rate at the end of each month (not including the month of withdrawal unless on the last day of the month), but not below zero. Members of the DROP receive no cost-of-living increases.

4) Upon termination of employment at the end of the specified period of DROP participation, the DROP account is paid out in a lump sum.

5) Continued employment after the end of the DROP period is possible only by reapplication to the Board by the employee. If rehired, that employee shall receive a lump sum of his DROP account balance as if he had retired. For DROP participants rehired after April 20, 2005, the retirement allowance that had been paid into the participant's DROP account shall be suspended while re-employed and the participant shall be treated in the same manner as a re-employed retiree.

EXHIBIT I (Continued)

SUMMARY OF SUBSTANTIVE PLAN CHANGES IN RECENT YEARS
HAVING AN IMPACT ON ACTUARIAL VALUATION RESULTS

<u>September 23, 1993:</u>	Reciprocity agreement with City of New Orleans amended, retroactive for transfers on and after October 17, 1988.
<u>January 8, 1994:</u>	Allows for purchase of credit for prior military service.
<u>December 13, 1995:</u>	Plan amended for qualification under Internal Revenue Code for Governmental Plans.
<u>January 1, 1996:</u>	<p>The Deferred Retirement Option Plan was adopted to allow members terminating employment and accepting a service retirement allowance under plan section 6(1) to participate in this program.</p> <p>Average Compensation amended to remove the \$1,200 reduction for employees hired after December 31, 1995.</p> <p>Any member with 5 years of Creditable Service and attainment of age 65 may retire.</p>
<u>January 1, 1997:</u>	<p>For members retiring on or after January 1, 1997 and choose a Joint and Survivor option, if the beneficiary predeceases the retiree, the reduced benefit reverts back to the maximum amount upon the death of the spouse.</p> <p>A member with 30 years of creditable service may retire, regardless of age, with no reduction in benefits.</p> <p>Death benefit payable to the spouse of a deceased disabled retiree is now available immediately upon the retiree's death, on an actuarially equivalent basis.</p>
<u>June 21, 2000:</u>	<p>Disability benefit equal to 75% of the member's accrued benefit based on service credits to the member had he continued in service until age 62.</p> <p>Eligible Dependent amended to add age 25 if the child attends school full-time or if the child is mentally or physically disabled.</p>

EXHIBIT I (Continued)

SUMMARY OF SUBSTANTIVE PLAN CHANGES IN RECENT YEARS
HAVING AN IMPACT ON ACTUARIAL VALUATION RESULTS

June 21, 2000:

Death benefit payable to designated beneficiary or estate when there is no spouse or eligible dependents equal to the member's accumulated contributions at death plus 25% of the member's prior year's earnable compensation payable from the Trust fund.

January 1, 2001:

Any retiree with less than 30 years of Credited Service and under age 62, the benefit is reduced by 3% for each year of age rounded to the nearest day below age 62.

February 25, 2001:

Plan amended for the Uruguay Round Agreements Act, the Small Business Job Protection Act of 1996, Uniformed Services Employment & Reemployment Rights Act of 1994, the Taxpayer Relief Act of 1997, the Internal Revenue Service Restructuring and Reform Act of 1998 and the Community Renewal Tax Relief Act of 2000, (GUST).

June 19, 2002:

Benefit formula amended to 2.5% of first 25 years of service, plus 4.0% for each year of service in excess of 25 years, up to a maximum of 100% of pay. A Rule of 80 retirement eligibility (age plus years of service greater than or equal to 80) without age reduction was added. Eligibility to leave employee accumulated contributions on deposit for Separation Retirement was changed from 10 years to 5 years; the exclusion of the first \$1,200 of annual pay was eliminated; D.R.O.P. period was extended from 3 to 5 years.

January 31, 2011:

Interest on DROP accounts changed from "Credited Interest" to that actually earned on the separately invested DROP accounts, but not below zero.

January 1, 2013:

Employee contribution formula amended from 4% to 5% of earnable compensation.

November 19, 2014:

Employee contribution formula amended from 5% to 6% of earnable compensation effective January 1, 2015 (but see explanation on page 12). Period used in determining average compensation changed for employees not yet eligible to retire as of December 31, 2014, was changed to forty-eight months effective January 1, 2017 and sixty months effective January 1, 2018.

EXHIBIT II
EMPLOYEES' RETIREMENT SYSTEM
OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS
STATEMENT OF ACTUARIAL BASIS FOR FUNDING PURPOSES

Actuarial Funding Method:

Cost Method:	Entry Age Normal Cost Method.
Asset Valuation Method:	Adjusted Market Value. Refer to the explanation on page 2 of the report and development in Table 2.

Actuarial Assumptions

Interest:	7% compounded annually.
Mortality:	1971 Group Annuity Mortality Table for males and females. (See chart in the following pages for specific rates by age and sex).
Turnover:	Table developed from the 1977-1980 Actuarial Experience Study, as used by the prior actuary. (See chart in the following pages for specific rates by age).
Salary Increases:	5.0% compounded annually.
Cost of Living Increases:	Actuarial liabilities for future cost of living increases were included for both active and inactive participants as per the appropriate sections of the plan.

STATEMENT OF ACTUARIAL BASIS FOR FUNDING PURPOSES

Actuarial Assumptions (Continued)

- Retirement:** It has been assumed that employees retire at a variation of the earliest age at which they would be eligible to retire (with reduced benefits, if applicable) as follows; if the earliest age of retirement eligibility is less than or equal to age 55, the assumed age at retirement is the earliest age plus one year, but not beyond age 55; if the earliest age of retirement eligibility is greater than age 55, the assumed age at retirement is the earliest age of retirement eligibility.
- Disability Incidence:** The rates utilized in the 14th actuarial valuation of the U.S. Railroad Retirement System. (See chart in the following pages for specific rates by age).
- Survivor Benefits:** 85% of active participants are assumed to be married to spouses of equal age. Children's survivor benefits and spouse's disability benefits (in the event of the death of a member on disability) were estimated to be 10% of the related benefits giving rise to the secondary benefits being valued.
- Other assumptions:** 20% of participants terminating with a vested right were assumed to withdraw their accumulated contributions upon termination, while 80% were assumed to retain their vested deferred benefits by leaving contributions on deposit.
- Accumulated employee contributions are credited with 2% interest compounded annually.

SEWERAGE AND WATER BOARD OF NEW ORLEANS RETIREMENT SYSTEM
 JANUARY 1, 2018 ACTUARIAL VALUATION
 ASSUMED RATES OF MORTALITY, WITHDRAWAL AND DISABILITY INCIDENCE BY AGE AND GENDER

MORTALITY			WITHDRAWAL	DISABILITY INCIDENCE
AGE	MALE	FEMALE		
15	.000433	.000193	.368600	.001100
16	.000444	.000205	.368600	.001100
17	.000457	.000218	.368600	.001100
18	.000471	.000231	.358700	.001100
19	.000486	.000245	.346600	.001100
20	.000503	.000260	.332900	.001100
21	.000522	.000275	.317800	.001100
22	.000544	.000292	.301800	.001100
23	.000566	.000309	.285100	.001100
24	.000591	.000327	.268000	.001100
25	.000619	.000347	.250700	.001100
26	.000650	.000368	.233600	.001100
27	.000684	.000390	.216700	.001100
28	.000722	.000414	.200200	.001100
29	.000763	.000440	.184300	.001100
30	.000809	.000469	.169100	.001100
31	.000860	.000499	.154700	.001100
32	.000916	.000533	.141200	.001100
33	.000978	.000569	.128500	.001100
34	.001046	.000608	.116800	.001100
35	.001122	.000651	.106100	.001300
36	.001204	.000698	.096300	.001500
37	.001295	.000750	.087600	.001800
38	.001397	.000807	.079800	.002100
39	.001509	.000869	.072800	.002400
40	.001633	.000938	.066800	.003000
41	.001789	.001013	.061600	.003600
42	.002000	.001094	.057200	.004200
43	.002260	.001186	.053500	.004800
44	.002569	.001286	.050400	.005500
45	.002922	.001397	.047800	.006400
46	.003318	.001519	.045800	.007400
47	.003754	.001654	.044200	.008200
48	.004228	.001802	.042900	.009000
49	.004740	.001967	.041900	.009700
50	.005285	.002151	.041200	.011100
51	.005867	.002324	.040500	.012600
52	.006480	.002520	.040000	.014000
53	.007127	.002738	.040000	.015800
54	.007806	.002982	.040000	.017600
55	.008519	.003256	.040000	.019000
56	.009262	.003574	.040000	.020000
57	.010039	.003948	.040000	.021500
58	.010889	.004388	.040000	.025000
59	.011924	.004901	.040000	.029500
60	.013119	.005489	.040000	.034500
61	.014440	.006156	.040000	.039000
62	.015863	.006898	.040000	.051000
63	.017413	.007712	.040000	.051000
64	.019185	.008608	.040000	.051000
65	.021260	.009563	.040000	.051000

SEWERAGE AND WATER BOARD OF NEW ORLEANS RETIREMENT SYSTEM
 JANUARY 1, 2018 ACTUARIAL VALUATION
 ASSUMED RATES OF MORTALITY, WITHDRAWAL AND DISABILITY INCIDENCE BY AGE AND GENDER

AGE	MORTALITY		WITHDRAWAL	DISABILITY INCIDENCE
	MALE	FEMALE		
66	.023643	.010565	.040000	.051000
67	.026316	.011621	.040000	.051000
68	.029188	.012877	.040000	.051000
69	.032435	.014461	.040000	.051000
70	.036106	.016477	.040000	.051000
71	.040008	.019000	0.000000	.051000
72	.043827	.021911	0.000000	.051000
73	.047489	.025112	0.000000	.051000
74	.051221	.028632	0.000000	.051000
75	.055293	.032385	0.000000	.051000
76	.060068	.036408	0.000000	.051000
77	.065924	.040769	0.000000	.051000
78	.072595	.045472	0.000000	.051000
79	.079692	.050616	0.000000	.051000
80	.087431	.056085	0.000000	.051000
81	.095445	.061853	0.000000	.051000
82	.103691	.067936	0.000000	.051000
83	.112303	.074351	0.000000	.051000
84	.121116	.081501	0.000000	.051000
85	.130102	.089179	0.000000	.051000
86	.139315	.097468	0.000000	.051000
87	.148714	.106452	0.000000	.051000
88	.158486	.116226	0.000000	.051000
89	.168709	.126893	0.000000	.051000
90	.179452	.138577	0.000000	.051000
91	.190489	.151192	0.000000	.051000
92	.201681	.165077	0.000000	.051000
93	.212986	.180401	0.000000	.051000
94	.226535	.197349	0.000000	.051000
95	.241164	.216129	0.000000	.051000
96	.256204	.236970	0.000000	.051000
97	.272480	.258059	0.000000	.051000
98	.290163	.280237	0.000000	.051000
99	.309125	.304679	0.000000	.051000
100	.329825	.331630	0.000000	.051000

EXHIBIT III

December 31, 2017 DISCLOSURE INFORMATION ON FUNDING PROGRESS

This section is included to provide information which had been historically required by the Governmental Accounting Standards Board Statements Number 25 and 27 and is provided for historical continuity and consistency. GASB Statements 25 and 27 have been replaced by GASB Statements 67 and 68. These two statements have made extensive and fundamental changes in the nature of the financial disclosure requirements and have effectively removed the actual funding aspects of the plan from any direct involvement. The effective date of GASB 67 (with respect to the plan itself) is the first Plan Year beginning after June 15, 2013 (namely, the Plan Year beginning January 1, 2014). The effective date of GASB 68 (with respect to the Sewerage & Water Board as sponsoring employer) is the first Fiscal Year beginning after June 15, 2014 (namely, the Fiscal Year beginning January 1, 2015). The actuarial information for financial disclosure as required by these GASB Statements is presented in a separate report.

The Projected Benefit Obligation (PBO) as of December 31, 2017 is based on all of the assumptions outlined in Exhibit II including future salary growth. The Unfunded Accrued Liability (UAL) is that used in funding the plan and is developed in Table 4.

SCHEDULE OF FUNDING PROGRESS

	<u>12/31/2016</u>	<u>12/31/2017</u>
Interest Assumption	7.00%	7.00%

RATIO OF UAL TO VALUATION PAYROLL:

[1] Unfunded Accrued Liability (UAL)	\$ 64,592,033	\$ 74,538,805
[2] Valuation Annual Payroll	35,363,156	41,822,648
[3] Ratio: [1] divided by [2]	182.7%	178.2%

FUNDED RATIO:

[1] Projected Benefit Obligation (PBO)		
Inactive Plan Participants	\$ 203,942,615	\$ 222,814,836
Active Plan Participants	<u>89,744,429</u>	<u>83,252,592</u>
Total PBO	\$ 293,687,044	\$ 306,067,428
[2] Actuarial Value of Assets	238,715,902	241,394,869
[3] Funded Ratio: [2] divided by [1]	81.3%	79.4%

EXHIBIT IV

ACTIVE AND INACTIVE PARTICIPANT PROFILES

EMPLOYEES RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS
 01/1/2018 ACTIVE PARTICIPANT AGE VS SERVICE GRID
 JANUARY 1, 2018 ACTUARIAL VALUATION

----- ALL ACTIVE PARTICIPANTS -----

AGE	YEARS OF SERVICE										TOTAL	TOTAL ANNUAL SALARIES	AVERAGE SALARY
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+				
0-19	4	0	0	0	0	0	0	0	0	0	4	119,400.02	29,850.01
20-24	49	1	0	0	0	0	0	0	0	0	50	1,363,117.58	27,262.35
25-29	124	19	1	0	0	0	0	0	0	0	144	4,631,681.33	32,164.45
30-34	116	51	6	0	0	0	0	0	0	0	173	6,283,891.82	36,323.07
35-39	87	23	11	3	1	0	0	0	0	0	125	4,754,977.46	38,039.82
40-44	54	14	12	4	13	0	0	0	0	0	97	3,833,657.08	39,522.24
45-49	42	22	10	13	16	10	0	0	0	0	113	4,455,485.91	39,429.08
50-54	62	17	16	8	26	22	11	1	0	0	163	6,704,966.78	41,134.77
55-59	45	20	18	2	13	11	15	4	0	0	128	5,539,107.32	43,274.28
60-64	26	16	8	1	0	7	5	1	0	0	64	2,934,141.19	45,845.96
65-69	10	4	0	1	2	1	1	0	0	0	19	1,041,231.26	54,801.65
70-74	0	1	1	1	0	0	0	0	0	0	3	160,997.71	53,665.90
	619	188	83	33	71	51	32	6	0	0	1,083	41,822,655.46	3861794.16

EMPLOYEES RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS
 01/1/2018 INACTIVE PARTICIPANT PROFILE
 JANUARY 1, 2018 ACTUARIAL VALUATION

AGE	YEARS SINCE RETIREMENT										TOTAL	TOTAL ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL			
45-49	2	0	0	0	0	0	0	0	0	0	2	79,460.88	39,730.44
50-54	5	0	0	0	0	0	0	0	0	0	5	305,592.48	61,118.50
55-59	11	30	2	0	0	0	0	0	0	0	43	1,615,684.08	37,574.05
60-64	33	72	39	4	0	0	0	0	0	0	148	4,363,604.28	29,483.81
65-69	13	61	63	23	0	0	1	0	0	0	161	4,544,919.00	28,229.31
70-74	5	19	73	26	4	0	0	0	0	0	127	3,030,762.60	23,864.27
75-79	0	2	16	25	12	1	0	0	0	1	57	1,223,522.76	21,465.31
80-84	0	0	0	19	18	7	1	0	0	0	45	787,616.04	17,502.58
85-89	0	0	0	3	7	7	2	0	0	0	19	352,224.96	18,538.16
90+	0	1	0	1	0	2	5	0	0	1	10	114,091.92	11,409.19
	69	185	193	101	41	17	9	0	0	2	617	16,417,479.00	266081566

EMPLOYEES RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS
 01/1/2018 INACTIVE PARTICIPANT PROFILE
 JANUARY 1, 2018 ACTUARIAL VALUATION

----- DISABLED RETIREES -----

AGE	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL	TOTAL ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
45-49	2	2	1	0	0	0	0	0	0	5	101,165.16	20,233.03
50-54	0	2	2	0	0	0	0	0	0	4	71,301.48	17,825.37
55-59	0	4	5	1	0	0	0	0	0	10	182,077.68	18,207.77
60-64	0	2	5	3	2	1	0	0	0	13	155,211.96	11,939.38
65-69	0	1	3	4	2	0	0	0	0	10	111,333.72	11,133.37
70-74	0	0	2	4	4	0	0	0	0	10	108,336.12	10,833.61
	2	11	18	12	8	1	0	0	0	52	729,426.12	14,027.43

EMPLOYEES RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS
 01/1/2018 INACTIVE PARTICIPANT PROFILE
 JANUARY 1, 2018 ACTUARIAL VALUATION

AGE	YEARS SINCE RETIREMENT										TOTAL	TOTAL ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT	
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL				
20-24	0	1	0	0	0	0	0	0	0	0	1	13,884.12	13,884.12	
45-49	0	1	0	0	0	0	0	0	0	0	1	2,527.20	2,527.20	
50-54	0	1	0	0	0	0	0	0	0	0	1	3,979.20	3,979.20	
55-59	2	2	2	0	0	0	0	0	0	0	6	27,661.32	4,610.22	
60-64	14	13	1	1	0	0	0	0	0	0	29	235,709.28	8,127.91	
65-69	9	3	5	0	0	1	0	0	0	0	18	166,773.12	9,265.17	
70-74	1	9	1	3	0	0	0	0	0	0	14	87,016.68	6,215.48	
75-79	5	4	1	1	0	1	0	0	0	0	12	151,930.32	12,660.86	
80-84	1	4	5	2	0	1	0	0	0	0	13	71,874.48	5,528.81	
85-89	3	1	0	0	1	1	0	0	0	0	6	80,028.12	13,338.02	
90+	0	1	2	1	0	0	0	1	1	1	6	67,648.32	11,274.72	
	35	40	17	8	1	4	0	1	1	1	107	909,032.16	8,495.63	

EMPLOYEES RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS
 01/1/2018 INACTIVE PARTICIPANT PROFILE
 JANUARY 1, 2018 ACTUARIAL VALUATION

----- DROP RETIREES -----

AGE	YEARS SINCE RETIREMENT										TOTAL	TOTAL ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL			
50-54	15	0	0	0	0	0	0	0	0	0	15	611,800.68	40,786.71
55-59	48	0	0	0	0	0	0	0	0	0	48	1,875,907.56	39,081.41
60-64	41	0	0	0	0	0	0	0	0	0	41	1,258,275.24	30,689.64
65-69	11	0	0	0	0	0	0	0	0	0	11	280,251.72	25,477.43
70-74	1	0	0	0	0	0	0	0	0	0	1	83,726.04	83,726.04
	116	0	0	0	0	0	0	0	0	0	116	4,109,961.24	35,430.70

SEWERAGE AND WATER BOARD OF NEW ORLEANS RETIREMENT SYSTEM
 12/31/2017 TERMINATED VESTED EMPLOYEES WITH DEFERRED BENEFITS

EMPLOYEE ID NUMBER	NAME	SEX	DATE OF BIRTH	DATE OF TERMINATION	(BASIC) INIT. MO. BENEFIT	(BASIC) CURR. MO. BENEFIT	SUPPL. MONTHLY BENEFIT	ACCUMULATED EMPLOYEE CONTRIBS.
769		M	11/05/59	3/24/2001	1,812.12	1,812.14	36.96	31,447.13
770		M	8/19/71	5/04/2006	0.00	435.87	0.00	7,004.63
771		M	4/14/58	1/11/1994	250.44	250.44	26.25	7,540.24
772		M	2/24/67	11/08/2004	0.00	1,110.29	0.00	21,156.73
773		M	1/06/66	2/24/2016	2,077.08	2,077.08	0.00	35,432.83
774		M	3/29/62	8/08/2007	0.00	2,133.13	0.00	23,833.94
775		M	8/29/62	1/13/1999	337.93	337.93	21.25	7,605.62
776		M	7/12/65	1/05/2017	0.00	1,419.01	0.00	23,994.84
777		M	2/25/58	1/13/2007	0.00	1,306.16	0.00	25,960.64
778		M	2/06/61	3/16/2011	0.00	0.00	0.00	10,376.09
779		F	10/17/76	5/29/2009	0.00	301.10	0.00	4,196.67
780		F	5/22/84	1/09/2016	708.34	708.34	0.00	16,659.45
781		M	7/24/70	3/06/2017	1,454.35	1,454.35	0.00	27,306.67
782		M	6/18/80	6/19/2017	361.98	361.98	0.00	10,642.02
783		M	11/30/55	4/11/2007	0.00	507.35	0.00	7,034.37
784		F	6/25/61	7/08/1995	555.81	555.81	22.50	14,099.34
785		M	11/02/58	10/15/2017	2,325.35	2,325.35	0.00	63,269.20
786		F	11/22/58	10/24/1999	930.15	930.15	28.75	16,496.91
787		M	1/13/69	4/21/2006	0.00	1,550.40	0.00	24,767.31
788		F	9/18/75	7/05/2017	497.68	497.68	0.00	15,029.82
789		M	7/27/61	6/21/1996	1,099.34	1,099.34	23.75	19,182.41
790		F	4/11/83	8/20/2016	715.38	715.38	0.00	17,404.23
791		M	11/22/53	12/04/2000	1,086.60	1,086.61	31.81	32,383.78
792		M	9/24/60	9/07/2000	688.67	688.68	40.37	14,593.58
793		M	12/17/62	3/31/2006	0.00	1,324.56	0.00	21,895.91
794		M	4/03/68	3/06/2017	1,485.88	1,485.88	0.00	28,603.34
795		F	1/01/78	12/23/2016	1,662.04	1,662.04	0.00	30,068.27
796		M	6/05/67	8/31/2016	1,925.22	1,925.22	0.00	31,645.63
TOTALS:					19,974.36	30,062.27	231.64	589,631.60

TOTAL COUNT: 28

EXHIBIT V

MARKET VALUE AND ACTUARIAL VALUE ASSET INVESTMENT PERFORMANCE

EMPLOYEES' RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS
ESTIMATED MARKET VALUE INVESTMENT PERFORMANCE
BY CALENDAR YEAR

PLAN YEAR ENDING	BEGINNING MARKET VALUE	EMPLOYER CONTRIBUTIONS FOR YEAR	EMPLOYEE CONTRIBUTIONS FOR YEAR	TRANSFERS IN FOR YEAR	TOTAL BENEFIT PAYMENTS FOR YEAR	TRANSFERS OUT FOR YEAR	NET EXTERNAL CASH FLOW FOR YEAR	MARKET VALUE INV. INCOME FOR YEAR	ENDING MARKET VALUE	MARKET VALUE INV. PERFORMANCE FOR YEAR
12/31/91	56,348,353	4,524,382	1,001,436	0	4,460,555	0	1,065,263	11,331,152	68,744,768	19.9208%
12/31/92	68,699,004	4,980,959	1,113,066	0	4,988,329	0	1,105,696	5,789,535	75,594,235	8.3601%
12/31/93	75,594,235	4,873,566	1,092,713	0	4,873,566	0	1,287,486	8,471,584	85,353,305	11.1120%
12/31/94	85,353,305	5,102,920	1,298,780	0	5,220,899	0	1,180,899	-2,682,882	83,851,322	-3.1217%
12/31/95	83,851,322	5,188,055	1,395,149	0	5,733,411	0	849,793	22,390,520	107,091,635	26.5680%
12/31/96	107,091,635	5,678,507	1,463,218	0	5,704,458	0	1,437,267	12,894,655	121,423,557	11.9605%
12/31/97	121,423,557	5,933,289	1,202,021	0	6,410,573	0	724,737	21,841,187	143,989,481	17.9341%
12/31/98	143,989,481	5,448,823	1,138,063	0	6,573,992	0	12,894	13,756,662	157,759,037	9.5535%
12/31/99	157,759,037	5,151,389	1,028,094	0	6,928,999	0	-749,516	16,013,013	173,022,534	10.1745%
12/31/00	173,022,534	5,444,048	1,053,495	0	7,317,215	0	-819,672	5,658,247	177,861,109	3.2780%
12/31/01	177,861,109	5,417,854	1,040,680	0	7,632,745	0	-1,174,211	-1,677,973	175,008,925	-9.465%
12/31/02	175,008,925	2,931,065	1,089,543	0	7,625,705	0	-3,605,097	-15,455,327	155,948,501	-8.9231%
12/31/03	155,948,501	3,391,535	1,097,183	0	9,184,249	0	-4,695,531	36,162,887	187,395,857	23.5304%
12/31/04	187,395,857	3,721,034	1,120,776	0	8,884,614	0	-4,042,804	19,502,120	202,855,173	10.5204%
12/31/05	202,855,173	3,716,381	1,176,637	714,343	10,177,467	0	-4,570,106	7,713,678	205,998,745	3.8459%
12/31/06	205,998,745	3,343,713	982,418	2,357,005	12,231,855	0	-5,548,719	28,734,146	229,184,172	14.1391%
12/31/07	229,184,172	3,885,124	1,014,461	1,854,239	12,812,727	0	-6,058,903	8,667,155	231,792,424	3.8324%
12/31/08	231,792,424	4,915,512	1,143,858	958,605	13,269,799	0	-6,251,824	-59,122,504	166,418,096	-25.8553%
12/31/09	166,418,096	5,247,031	1,161,744	516,393	14,231,876	0	-7,306,708	31,912,755	191,024,143	19.6067%
12/31/10	191,024,143	5,146,081	1,190,714	849,540	15,409,624	0	-8,223,289	22,439,431	205,240,285	12.0053%
12/31/11	205,240,285	5,436,700	1,161,996	1,233,504	15,947,090	0	-8,114,890	8,968,361	206,093,756	4.4578%
12/31/12	206,093,756	6,114,997	1,128,257	1,690,683	17,406,238	0	-8,472,301	23,082,600	220,704,055	11.4351%
12/31/13	220,704,055	5,946,614	1,465,774	1,065,165	18,002,573	0	-9,525,020	23,179,014	234,558,049	10.7339%
12/31/14	234,558,049	6,055,890	1,535,723	2,001,222	18,748,955	0	-9,156,120	11,354,742	236,556,671	4.9416%
12/31/15	236,556,671	6,506,652	1,905,689	1,847,239	20,244,603	0	-9,985,003	-4,144,141	222,427,527	-1.7896%
12/31/16	222,427,527	6,407,201	2,064,387	1,629,756	20,742,211	0	-10,640,867	12,569,601	224,356,261	5.7896%
12/31/17	224,356,261	7,239,467	2,139,705	2,416,042	24,193,431	0	-12,398,217	23,326,273	235,284,317	10.6924%

Number of Years Included: 27

-113,674,763 292,656,491

EMPLOYEES' RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS
 ESTIMATED INVESTMENT PERFORMANCE BY MARKET VALUE AND ACTUARIAL VALUE OF ASSETS
 BY CALENDAR YEAR

YEAR ENDING	ENDING MARKET VALUE	MARKET VALUE INV. PERF. FOR YEAR	MARKET VALUE		ACTUARIAL VALUE		ENDING ACTUARIAL VALUE OF ASSETS	ACTUARIAL ASSETS INV. PERF. FOR YR
			MEAN FUND	VALUE	MEAN FUND	VALUE		
12/31/1991	68,744,768	19.9208%	56,880,985	58,063,594	64,921,832	10.8943%		
12/31/1992	75,594,235	8.3601%	69,251,852	65,474,680	72,541,969	9.9496%		
12/31/1993	85,353,305	11.1120%	76,237,978	73,185,712	81,932,422	11.0718%		
12/31/1994	83,851,322	-3.1217%	85,943,755	82,522,872	87,957,901	5.8706%		
12/31/1995	107,091,635	26.5680%	84,276,219	88,382,798	100,059,569	12.7308%		
12/31/1996	121,423,557	11.9605%	107,810,269	100,778,203	114,805,212	13.2056%		
12/31/1997	143,989,481	17.9341%	121,785,926	115,167,581	120,911,255	4.6726%		
12/31/1998	157,759,037	9.5533%	143,995,928	120,917,702	134,901,231	11.5592%		
12/31/1999	173,022,534	10.1745%	157,384,279	134,526,473	149,976,441	11.7633%		
12/31/2000	177,861,109	3.2780%	172,612,698	149,566,605	164,845,672	10.4896%		
12/31/2001	175,008,925	-9.665%	177,274,004	164,258,567	180,737,128	10.3895%		
12/31/2002	155,948,501	-8.9231%	173,206,377	178,934,580	187,892,718	6.0138%		
12/31/2003	187,395,857	23.5304%	153,600,736	185,544,953	196,697,632	7.2760%		
12/31/2004	202,855,173	10.5204%	185,374,455	194,676,030	204,706,452	6.1907%		
12/31/2005	205,998,745	3.8459%	200,570,120	202,421,399	209,829,340	4.7885%		
12/31/2006	229,184,172	14.1391%	203,224,386	207,054,981	217,143,723	6.2124%		
12/31/2007	231,792,424	3.8324%	226,154,721	214,114,272	223,583,589	5.8374%		
12/31/2008	166,418,096	-25.8553%	228,666,512	220,457,677	222,598,640	2.3891%		
12/31/2009	191,024,143	19.6067%	162,764,742	218,945,286	228,999,660	6.2608%		
12/31/2010	205,240,285	12.0053%	186,912,499	224,888,016	230,298,898	4.2343%		
12/31/2011	206,093,756	4.4578%	201,182,840	226,241,453	229,137,699	3.0736%		
12/31/2012	220,704,055	11.4351%	201,857,606	224,901,549	229,633,410	3.9875%		
12/31/2013	234,358,049	10.7339%	215,941,545	224,870,900	226,423,894	2.8085%		
12/31/2014	236,556,671	4.9416%	229,779,989	221,845,834	223,689,647	2.8947%		
12/31/2015	222,427,527	-1.7896%	231,564,170	218,697,146	233,572,291	9.0845%		
12/31/2016	224,356,261	5.7896%	217,107,094	228,251,858	238,715,902	6.9154%		
12/31/2017	235,284,317	10.6924%	218,157,153	232,516,794	241,394,869	6.4843%		

EMPLOYEES' RETIREMENT SYSTEM OF THE SEWERAGE AND WATER BOARD OF NEW ORLEANS
ESTIMATED INVESTMENT PERFORMANCE
BY CALENDAR YEAR

PLAN YEAR ENDING	NET EXTERNAL CASH FLOW		MARKET VALUE INV. INCOME		MARKET VALUE INVESTMENT PERFORMANCE			ACTUARIAL ASSET VALUE INVESTMENT PERFORMANCE			
	BEGINNING MARKET VALUE	FOR YEAR	FOR YEAR	ENDING MARKET VALUE	FOR YEAR	CUMULATIVE	AVERAGE	FOR YEAR	CUMULATIVE	AVERAGE	YEAR
12/31/91	56,348,353	1,065,263	11,331,152	68,744,768	19.9208%	19.92%	19.92%	10.89%	10.89%	10.89%	1
12/31/92	68,699,004	1,105,696	5,789,535	75,594,235	8.3601%	29.95%	13.99%	9.95%	21.93%	10.42%	2
12/31/93	75,594,235	1,287,486	8,471,584	85,353,305	11.120%	44.39%	13.03%	11.07%	35.43%	10.64%	3
12/31/94	85,353,305	1,180,899	-2,682,882	83,851,322	-3.1217%	39.88%	8.75%	5.87%	43.38%	9.43%	4
12/31/95	83,851,322	849,793	22,390,520	107,091,635	26.5680%	77.04%	12.10%	12.73%	61.63%	10.08%	5
12/31/96	107,091,635	1,437,267	12,894,655	121,423,557	11.9605%	98.22%	12.08%	13.21%	82.98%	10.59%	6
12/31/97	121,423,557	724,737	21,841,187	143,989,481	17.9341%	133.77%	12.90%	4.67%	91.52%	9.73%	7
12/31/98	143,989,481	12,894	13,756,662	157,759,037	9.5535%	156.10%	12.47%	11.56%	113.66%	9.96%	8
12/31/99	157,759,037	-749,516	16,013,013	173,022,534	10.1745%	182.15%	12.22%	11.76%	138.80%	10.15%	9
12/31/00	173,022,534	-819,672	5,658,247	177,861,109	3.2780%	191.40%	11.29%	10.49%	163.85%	10.19%	10
12/31/01	177,861,109	-1,174,211	-1,677,973	175,008,925	-0.9465%	188.65%	10.12%	10.39%	191.26%	10.21%	11
12/31/02	175,008,925	-3,605,097	-15,455,327	155,948,501	-8.9231%	162.89%	8.39%	6.01%	208.77%	9.85%	12
12/31/03	155,948,501	-4,695,531	36,142,887	187,395,857	23.5304%	224.75%	9.48%	7.28%	231.24%	9.65%	13
12/31/04	187,395,857	-4,042,804	19,502,120	202,855,173	10.5204%	258.91%	9.56%	6.19%	251.75%	9.40%	14
12/31/05	202,855,173	-4,570,106	7,713,678	205,998,745	3.8459%	272.72%	9.17%	4.79%	268.59%	9.05%	15
12/31/06	205,998,745	-5,548,719	28,734,146	229,184,172	14.1391%	325.42%	9.47%	6.21%	291.49%	8.90%	16
12/31/07	229,184,172	-6,058,903	8,667,155	231,792,424	3.8324%	341.72%	9.13%	5.84%	314.34%	8.72%	17
12/31/08	231,792,424	-6,251,824	-59,122,504	166,418,096	-25.8553%	227.51%	6.81%	2.39%	324.24%	8.36%	18
12/31/09	166,418,096	-7,306,708	31,912,755	191,024,143	19.6067%	291.72%	7.45%	6.26%	350.80%	8.25%	19
12/31/10	191,024,143	-8,223,289	22,439,431	205,240,285	12.0053%	338.75%	7.67%	4.23%	369.89%	8.04%	20
12/31/11	205,240,285	-8,114,890	8,968,361	206,093,756	4.4578%	358.31%	7.52%	3.07%	384.33%	7.80%	21
12/31/12	206,093,756	-8,472,301	23,082,600	220,704,055	11.4351%	410.72%	7.69%	3.99%	403.64%	7.63%	22
12/31/13	220,704,055	-9,525,020	23,179,014	234,358,049	10.7339%	463.54%	7.82%	2.81%	417.79%	7.41%	23
12/31/14	234,358,049	-9,156,120	11,354,742	236,556,671	4.9416%	493.49%	7.70%	2.89%	432.78%	7.22%	24
12/31/15	236,556,671	-9,985,003	-4,144,141	222,427,527	-1.7896%	482.87%	7.31%	9.08%	481.18%	7.29%	25
12/31/16	222,427,527	-10,640,867	12,569,601	224,356,261	5.7896%	516.61%	7.25%	6.92%	521.37%	7.28%	26
12/31/17	224,356,261	-12,398,217	23,326,273	235,284,317	10.6924%	582.54%	7.37%	6.48%	561.66%	7.25%	27

Number of Years Included: 27

CERTIFICATION

The foregoing report presents fairly the actuarial position of the Employees' Retirement System of the Sewerage and Water Board of New Orleans as of January 1, 2018 in accordance with generally accepted actuarial principles applied on a basis consistent with the preceding valuation, except where noted. In our opinion, the assumptions used in preparing the liabilities and estimated costs are reasonably related to the experience of the plan and to reasonable expectations and represent our best estimate of anticipated experience under the plan.

CONEFRY & COMPANY, L.L.C.



Michael A. Conefry, FCA, ASA, MAAA, MSPA
Enrollment Number 17-1235

New Orleans, Louisiana
May, 2018
V201712

