



The Sewerage & Water Board OF NEW ORLEANS

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

February 1, 2019

Dear Honorable Members of the City Council:

I present to you the latest quarterly report of the Sewerage and Water Board (SWBNO) as required by Louisiana Revised Statute 33:4091(Subsection C). The information herein provides updates to the previous report presented to the City Council in October 2018.

In 2019, we stand at a pivotal moment as a utility and as a City. Reliability has returned to our drainage and power systems after years of neglect, and major enhancements to our billing process are underway. We can safely say that we are ending a long string of crises. We have achieved a state of guarded stability with more than enough pumps and self-generated power available to reduce the risk of rainstorm flooding. But 2019 is by no means a time for complacency. Instead, it is a time for collaboration; a time to come together as a City to strive to keep the unsteadiness of 2018 in the past.

This mindset has already led to productive partnerships. The Department of Public Works and SWBNO have never been closer. We are locked arm in arm to tackle the impacts of our aging infrastructure, from paving service cuts to the advancement of the FEMA-financed Joint Infrastructure Recovery Roads (JIRR) program. We are also collaborating to be more responsive to you and your staffs as constituents raise concerns over field work.

Likewise, Entergy New Orleans and SWBNO are forging new ground. Their representatives have toured our facilities and we plan to see their operations in the near future. We are Entergy's largest customer in the City, and they have made it a point to keep open lines of communication with us.

Now it is time to convert these relationships into a new vision for this utility. While the technology of the past 120 years was innovative in its time, it is imperative that we begin to set the pace for the future of water management in New Orleans. The team has already begun to plan for this: For example, we want to move away from antiquated steam-powered generators at every opportunity.

The SWBNO budget for 2019 will continue to feel the effects of more than \$80 million in emergency spending, even after the estimated \$56.6 million in drainage tax revenue is received toward the end of the first quarter.

Beyond requiring customers to pay what they owe for sewer and water service, we also must look to tap new streams of revenue if SWBNO is going to fulfill its mission to keep New Orleans safe and healthy. Understandably, we also are pursuing every option to employ efficiencies and discover new areas where we can save money.

For 120 years, the Sewerage and Water Board of New Orleans has dutifully served the people of this City. We are changing, but that dedication will remain steadfast. We are committed to providing excellent service to our customers, our friends and our neighbors.

Yours in service,

A handwritten signature in black ink, appearing to read "Ghassan Korban". The signature is fluid and cursive, with a long horizontal stroke at the end.

Ghassan Korban
Executive Director

Please review the following report as determined by the requirements of R.S. 33:4091(C), due on the first day of the second month following the close of each calendar quarter. In general, this report is germane to the close of Q4 of 2018 on Dec. 31, 2018.

1) Standard Industry Metrics for Best Practice

a) Percentage of water loss –

SWBNO has begun to standardize a process to track and manage water loss that will inform leaders, stakeholders, customers and the public regarding the volume of unaccounted gallons due to leaks, theft and other infrastructure deficiencies. Conducting a water loss audit will identify where and how much water is being lost from the distribution system and lead us to improvement in water loss control.

Reducing water loss will help SWBNO increase its water use efficiency and save the utility money. Similar to a financial audit conducted by accountants, the water audit compares the volume of water treated and pumped to the volume of water consumed by customers and other uses, such as firefighting, system flushing, other municipal organizations or community uses. The process begins by dividing the water produced into categories of authorized consumption and unauthorized consumption. This is independent of whether the water billed or unbilled. The unauthorized consumption can be broken down further to isolate “real loss,” which is the water lost through leaks or other infrastructure deficiencies. It can also identify “apparent loss,” which is the amount unaccounted for because of unauthorized use, theft of data analysis errors. Together, these data create a portrait of unbilled water – non-revenue water – that can become the basepoint for a plan to reduce water loss.

SWBNO engaged Raftelis Consultant in October 2018 to conduct a water loss audit and issue a report on its findings. As soon as the report is finalized, SWBNO will submit a copy to the Council. Preliminary data, meanwhile, reveals the following snapshot of water loss in 2017:

WATER PRODUCED – 54.471 Million Gallons	Water Accounted For 43.8%	Billed Authorized Consumption 28.3%
		Unbilled Authorized Consumption 15.5%
	Unaccounted for Water 56.2%	Unauthorized 0.8%
		Documented Water Loss 2.3%
		Undocumented Water Loss/Leaks 53.1%

These metrics will be the base point by which we will measure improvements going forward.

b) *Percentage of water paid*

The percentage of water use billed versus revenue collected for this quarter is approximately 57%.

WATER	BILLED	COLLECTED
2016	\$83,474,586.44	\$82,513,793.39
2017**	\$107,353,671.34	\$85,129,383.44
Q1 of 2018	\$28,958,055.31	\$19,363,390.45

Q2 of 2018	\$29,113,894.16	\$19,434,170.29
Q3 of 2018	\$23,844,451.56	\$19,240,952.56
Q4 of 2018*	\$37,1226,475.84	\$21,293,703.01

* Preliminary unaudited value

** Adjusted to reflect 2017 CAFR

SEWER	BILLED	COLLECTED
2016	\$98,577,641.57	\$99,575,345.39
2017**	\$125,871,120.34	\$101,987,351.70
Q1 of 2018	\$34,510,245.46	\$23,824,689.76
Q2 of 2018	\$34,320,725.25	\$24,182,424.27
Q3 of 2018	\$37,678,598.43	\$24,018,933.71
Q4 of 2018*	\$39,731,575.37	\$26,077,062.58

* Preliminary unaudited value

** Adjusted to reflect 2017 CAFR

By comparison, the following is the amount of water consumption billed in gallons:

2016	13,106,735,840 – The 2016 CAFR shows this amount
2017	13,084,603,700 – this is the audited billed consumption
Q1 of 2018	3,899,060,314
Q2 of 2018	3,826,589,274
Q3 of 2018	4,132,863,723
Q4 of 2018*	4,551,945,024

* Preliminary unaudited value

c) Percentage of receivables outstanding, including delinquency schedule

Customer Account Aging Report

[As of December 31 2018]

Customer Category Type	Total Number of Accounts	Total Number of Account Delinquencies	60+ days past due	Total Number of Accounts in Disputes
Residential	118,526	23,400	21,501,136.02	4403
Multi-Family	4,623	689	1,234,023.84	226
Commercial	12,787	1,384	4,244,278.96	365
Industrial	32	3	7,791.51	0
TOTALS	135,968	25,476	\$ 26,987,230	4,995

d) Customer service improvements

Below is a list of SWBNO 2018 customer service response times. The primary goal is to improve average completion days by the end of 2019.

ITEM	2018 AVERAGE RESPONSE TIME	2019 RESPONSE GOAL
Sewer House Connection Backup	1 Day	1 Day
Sewer Main Backup	1 Day	1 Day
Locate Water Meter	24 Days	14 Days
Water Leak – Outlet	27 Days	21 Days
Water Leak – Main	34 Days	21 Days
Water Leak – Inlet	58 Days	30 Days
Water Leak – Meter	69 Days	21 Days

Below these data represents work completed by SWBNO staff in 2018 and new work generated during that same period of time.

REPAIRS		NEW LEAKS	
Total Meters	1333	Total Meters	1264
Total Sewer	2299	Total Sewer	2424
Total Water	5455	Total Water	5930
TOTALS	9087	TOTALS	9618

REPAIRS – DAILY AVERAGE		NEW LEAKS - DAILY AVERAGE	
Meter	12.59524	Meter	12.0381
Sewer	21.89524	Sewer	23.08571
Water	51.95238	Water	56.47619

SWBNO has worked diligently to improve the customer experience and to earn the confidence of our customers.

We continue to make system enhancements to improve the functionality and business processes availability within our billing system.

We engaged a 3rd party consultant, Utiliworks, to review our billing processes and provide recommendations as necessary. We are satisfied that their review of our collections processes was appropriate.

Meter reading routes that had been identified as out of sequence in the summer 2018 were corrected, reducing the opportunity for meter reading errors. The improvements include sending a meter reader to every accounts, ensuring route assignments are completed by the end of the shift and other enhancement.

- Since June 2018, SWBNO has hired 19 Meter Readers.
- There has been a slight reduction in questionable reads and skipped reads, although they will vary from month to month due to weather conditions, meter conditions and accessibility to the meter.
- Training has improved in the last 6 months by the following actions:
 - The inspectors now are monitored by their supervisor. If the frequency of questionable or skipped reads increases, the individual is placed with a supervisor to walk with them to observe their performances for one week to determine if additional training is warranted.
 - As situations or concerns are brought to our attention, training sessions are held. The importance of properly completing investigations in the field, on paper and in the Ipad is revisited regularly.
 - The inspectors meet twice a month to discuss any changes in equipment or techniques to improve efficiency.
- The customer letters for investigation results have been updated and new letters were created to provide additional information regarding the outcome of requested investigations.
- The backlog of transfer accounts – accounts for residents moving into new properties – has been reduced from more than 12,000 open transfers to 958 as of Jan. 25, 2019. Given that new requests are received every day, this means that billing staff have processed more than 16,000 transfers in a matter of months. New transfer requests now average about 3 weeks to complete.

- The average wait time for customer service calls decreased 68% from October – December 2018 compared to the previous three months (July- September 2018).

EMERGENCY CALLS 2018		
	AVERAGE TALK TIME	AVERAGE ANSWER SPEED
JANUARY	2:42	3:04
FEBRUARY	3:12	0:50
MARCH	3:21	0:57
APRIL	3:36	0:57
MAY	3:25	0:51
JUNE	3:24	0:43
JULY	3:01	0:48
AUGUST	3:15	1:04
SEPTEMBER	2:57	0:33
OCTOBER	2:58	0:33
NOVEMBER	2:55	0:35
DECEMBER	2:41	0:28

CUSTOMER SERVICE CALLS 2018		
	AVERAGE TALK TIME	AVERAGE ANSWER SPEED
JANUARY	4:31	7:09
FEBRUARY	4:32	3:58
MARCH	4:43	9:34
APRIL	4:37	12:43
MAY	4:32	9:10
JUNE	4:19	5:54
JULY	4:16	10:00
AUGUST	4:52	13:59
SEPTEMBER	4:28	4:15
OCTOBER	4:23	1:50
NOVEMBER	4:22	2:48
DECEMBER	4:13	2:29

Our Environmental Department participated in 73 events with 9,920 individuals reached, including :

- 3,513 students
 - 7 Elementary
 - 7 Middle School
 - 3 High School
 - 4 College/University
- 50 Community Events
 - Ranging from Earth Day at City Park, to Community Catch Basin Cleanups/Trainings, to presentations on the board at a Community Forestry Series.
- 6 Business/Contractor Outreach Events
 - The Environmental Department also educates small businesses such as construction contractors and restaurants on stormwater best management practices as well as how to properly manage and dispose of fats, oils, and grease.

The Customer Service Department is also reaching out to expand their service hours and meet people where they are. The billing and customer service team joined the SWBNO efforts at community meetings in Carrollton, Lakeview and Gentilly Fest. The SWBNO St. Joseph Street Customer Service Center was open on Saturday mornings in December. In January, the team addressed billing concerns with a satellite space at Rosa F. Keller Library in Broadmoor. Staff also served customers at a Justice and Beyond listening session where Mr. Korban and Council Member Banks listened to community concerns.

Mr. Korban continues to speak to neighborhood and non-profit organizations such as Carrollton United, the Water Collaborative, the Greater New Orleans Foundation and more about the state and future of SWBNO.

SWBNO, in full coordination with the Department of Public Works, will be introducing a streamlined process to address customer and constituent complaints received by City Council offices regarding bills, field work, and other issues. This process will create a shared research and response strategy to provide elected officials and other stakeholders with the most up-to-date information regarding SWBNO and DPW work and to address major issues in the field. The goal is to introduce this new process to the Council in February.

Meanwhile, a staff dedicated to addressing the Council's constituent billing concerns is already in place in the Customer Service Department.

Training is an integral component for our progress on customer service improvements. 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 SWBNO's regular customer service processes.

At the end of January, SWBNO will hold the first Customer Service training program class. We've partnered with Dale Carnegie and will be running one 30 student class per month as we work through the employee population. We are starting with the front-line customer service employees and working our way out from there.

2) Prevention of Waste or Fraud

At SWBNO, we have:

- Established our new Mission, Vision and Guiding Principles, foundational precepts that are now fully integrated into all programs. Statements and clear expectations are defined regarding Accountability, Teamwork, Customer Focus, Honesty/Integrity, Service Excellence, Safety, and Workplace Climate. All of these are now introduced to new employees in their onboarding and orientation program and are also included throughout leadership education and training within the leader development program.
- Created Leadership Framework and Leader Development Program (into our third training cohort). This is a first in board history. Our framework is based on the "Leading Self/Others/Change/Organization Model." We have established 24 leadership competencies that fit within the focus areas of the model. We have commenced a leader development training and education program. Our initial focus has been at the team leader/supervisor level of the organization. We have

created a two-day course and have held two, 25 student classes. The third class is scheduled for mid-February.

- Created a new employee onboarding and orientation program, benchmarked against other organizations, and created a multimodule program to bring new employees into the organization.
- Created Executive Directors Employee Advisory Council - 30 volunteer employees from across the organization staffing committees dealing primarily with employee engagement areas of communications, incentives and recognition, and employee personal/professional development. Council directly advises Executive Director.
- Introduced new Substance Abuse Policy with random drug testing program. The random drug testing is conducted with civil service designated safety sensitive positions.

SWBNO has contracted with Water Company of American to identify and address water theft. The summary of findings to date are:

Find Description and Related Revenue Category	Work Order Count	Estimated Annual Increased Revenue
Water, Sewer, Fire Service	66	\$836,000

The Water Company initiated the study with a focus on large meter, high usage properties. Less than 10% of this category has been researched in the field thus-far. Once complete, a focus on small meter, low usage properties – including residential – will begin. Areas hard hit by Hurricane Katrina with inherent reductions in account density are a major area of interest and will demand careful field scrutiny to ensure that active water taps and sewer connections are accounted for.

3) Metrics for Employees and Contractors

As of January 2019, there are 233 vacant positions across SWBNO.

There were 214 positions cut from the 2019 budget. As part of continued improvement efforts, SWBNO has been right-sizing the organization. Part of this process included a critical look at vacancies, departmental needs and budgetary constraints which resulted in the cuts.

Our efforts to recruit more employees to key positions include:

- Re-writing job descriptions to include original entry for difficult to recruit positions.
- Partnership with Delgado Community College that includes SWBNO job specific training.
- Leadership training for Board employees as preparation for job advancement and upward mobility.
- Updating SWBNO website

- Participating in community-based events, job fairs and other off-site recruitment opportunities.

The domicile policy creates several roadblocks including:

- Places undo financial stress on employees; Orleans Parish is more expensive than the surrounding areas to live in.
- Limits recruitment opportunities

SWBNO is working to enhance its internal controls by revising various policies, improving financial reporting and enforcing existing policies and procedures with more oversight and greater accountability. In addition, a draft procurement process manual has been developed and is in the final stages of development. It is anticipated that staff will bring final recommendations to the Board of Directors in March 2019. This will provide clear guidance on purchasing reviews and approval levels, changes orders and amendments, and overall philosophy to communicate accountability and commitment for an open and competitive contracting process that meets all regulatory laws and best practices.

Change Order Upgrades

- In December 2018, SWBNO released a memorandum on the change orders policy. Going forward, SWBNO will be using the Louisiana Department of Transportation and Development (LaDOTD) procedures for a model for developing SWBNO Change Order Procedures.

4) Benchmarks of success regarding improved coordination between SWBNO and the Department of Public Works to ensure priority and resource alignment

There is little separation between SWBNO and DPW when it comes to coordinating field work. Staff is in daily contact as issues arise. The two agencies are currently coordinating their responses to the Carnival Season. They worked together to establish the Max Pave program to address the backlog of unfinished service cuts. The agencies are also working to improve processes to jointly address the daily constituent concerns of New Orleans' elected officials.

5) Report on the efficiency and effectiveness of information systems

- Information Systems has been very active over the last 6 months and work includes the following:
- New External Website- The new website was developed using the latest web development technologies for easier system integrations and includes better content organization and navigation for easier use by customers. Additionally, the website uses responsive design which allows the site to be viewed on any device (tablet, phone, laptop, pc, etc.) in an ideal format. SWBNO plans on adding additional dashboards, story maps, new content and features this year.

- Voice over Internet Protocol (VoIP) Telephone System- Implemented at 2 Major SWBNO Sites; conducted training and produced quick reference sheet for users. Additional SWBNO sites will be migrated to VoIP during the 1st Quarter, 2019.
- Active Directory Modified - Updated Active Directory to match Human Resources data in preparation for new HR/Payroll System. Information Systems plans on automating Active Directory changes as new information is available in the HR/Payroll System.
- New Human Resources / Payroll System- Implemented Dynamics Great Plains Human Resources and Payroll modules; moved check printing to MICR printer, saving money on preprinted check forms. Helped design new paystub which is easier to read and fits in the same, standard two window envelope used for water bills. Online time entry and an employee portal will be implemented in the next few months.
- Microsoft Dynamics Great Plains Upgraded to 2016 Version-Upgrade was necessary for implementation of online employee portal for the new HR/Payroll system as well as the upgrade of Cogsdale CSM.
- Network Connectivity Extended- Includes monitoring of several pump stations and water purification facilities.
- Drainage SCADA System redesigned and implemented-Includes implementation of OSIsoft Pi Historian.
- Online Administrative Hearing Scheduling Software-Researched, acquired, and implemented online tool for scheduling Administrative Hearings; drafted and finalized procedures to allow Customer Service Representatives to schedule the backlog of customers waiting for hearings; set up equipment for use at multiple permanent and roaming hearing locations; drafted and finalized procedures to allow administrators to monitor and revise all hearing officer schedules via the online tool.
- Consent Decree Quarterly Reports-Completed all Consent Decree Reports timely and accurately.
- Revenue and Finance Departments supported by setting up appropriate environments, refreshing data in environments, etc.- (a) Rockton Auditor Software installed in test environment for Revenue Department; (b) Meter Reading Sequencing project (c) Cogsdale Finance Limited Technical Engagement Tasks.
- Windows Upgrade and Office 365 Deployments-Ongoing upgrade of windows software and deployment to Office 365.
- Exchange Online Cloud Hybrid Implemented.
- Pentana Audit Software Upgrade.
- XC2 FOG (Fats, Oils and Grease) Software Upgrade.
- Deployed Microsoft SCCM Patch Manager.
- Federated the Enterprise Arc GIS System-to supply high availability environment
- Guest WIFI-full roll out throughout the SWBNO
- Papervision Document System-replaced customer records legacy system with Papervision software; loaded all documents into new software

- 1) Detailed reports on assessment and status of technologies and operation programs and strategies for system redundancy and service improvements; and 7) Detailed reports on assessment and status of operational reforms, capital improvement programs, and service assurance programs

Pi Vision

- Pi Vision is currently tracking drainage pumping operations and water distribution pressure monitoring. SWBNO has assigned a Mechanical Engineer to work with Information Technology and Facility Maintenance to keep the system operational and make necessary improvements as time and funding permits.

Low Pressure Alarms

- Audible Pressure Alarms for drop in water pressure have been added at Central Control. Alarms are set to sound if pressure at any of our monitoring sites drops near 20 pounds per square inch (psi).

The 2019 Adopted Operating Budget is \$270,270,003. This total encompasses:

- salaries - \$103,256,885
- services and utilities - \$65,327,722
- materials and supplies - \$55,122,504
- special current charges - \$6,824,502
- furniture and equipment - \$1,237,233
- and debt service - \$38,501,157.

There are 1,581 authorized positions in the 2019 Operating Budget. The Adopted 2019 Operating Budget will provide employees with necessary components that will allow them to efficiently and effectively deliver vital services.

The total 2019 Capital Budget needs are \$582,633,383 and the total 10-year Capital Program needs amount to \$3,033,212,782.

Due to financial constraints that resulted from the response to the Aug. 5, 2017 flood event, the 2019 Adopted Capital Budget is \$166,665,730. The 2019 Adopted Budget can be broken down by the following:

- \$45,181,714 for drainage
- \$59,307,242 for water
- \$62,176,774 for sewerage

The capital budget is heavily dependent on a Safe Drinking Water Loan (Water Fund), a Clean Water Loan (Sewerage Fund), and the selling of drainage bonds (Drainage Fund). The capital budget has been prioritized to ensure that work on the most critical and urgent projects are completed.

As an organization, we are shifting away from repairing assets to replacing them. A good example is conversion of A and B potable water pumps from steam to electric motors. Rather than spending approximately \$500,000 to replace a damaged gear box, we are

looking to install an electric motor and frequency drive power the pump. Motors would be the modern 60 Hz, not 25 Hz.

Work to move toward a robust asset management system is underway, but financial constraints are likely to slow that process.

7) The identity and detailed information on the status of all projects and all improvements made since the close of the last quarter

A copy of the 2019 Capital Budget is included with this report. For projects completed in the 4th Quarter of 2018, please review the following chart.

Council District	Name	Scope	Cost Estimate
A	DPS 7 – Pump C Emergency Repairs	DPS 7 – Pump C Emergency Repairs	\$132,000.00
B	DPS 1- Anti-Siphon Project	Anti Siphon project for DPS 1	\$608,237.54
A	Underpass pump station 02 – Canal Blvd	Installation of Permanent Generator	\$435,235.86
A	UPS 6 – Old Carrollton – Temporary Generator	Emergency Temporary Generator Rental	\$142,977.63
D,E	Gentilly Terrace Group A	Replace identified damaged water main segment in Gentilly Terrace	\$138,820.03
E	LNW Northwest Group A	Replace identified damaged water main segments in Lower Ninth Ward – South	\$5,546,729.05
E	Bio-Reactor Train #4 Clean-Out	Clean out of Bio- Reactor Train #4	\$1,924,586.03
A	SFG Structural Improvements	Structural rehab to Sycamore Filter Gallery pipe supports.	\$142,654.00
D	Electrical equipment at Garage No. 2 and Main Power Building	Repairs to Electrical System in Garage No. 2 & Main Building	\$1,724,670.23