



The Sewerage & Water Board

OF NEW ORLEANS

625 ST. JOSEPH STREET

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www.swbno.org

February 1, 2021

Dear Chairman Giarrusso and members of the Public Works Committee:

Below please find the Sewerage and Water Board's (SWBNO) first quarterly report to the Public Works Committee, as required by Louisiana Revised Statute 33:4091. Attachments to this report include the following:

- ABS Causation Report, Exhibit 1
- 2021 Operating and Capital Budget Presentation & Workbooks, Exhibit 2

In addition to the statutory reporting requirements, we also have included information on power and drainage, capital projects, customer service, and financial efforts since our last quarterly report in September. The report is organized in four sections addressing each of these topics.

We are available at your convenience to discuss any of the topics in further depth. We may also supplement and/or update this information if the content changes significantly prior to the February Public Works Committee Meeting. We look forward to a fruitful discussion at the meeting later this month.

Regards,

Ghassan Korban
Executive Director

I. POWER & DRAINAGE

We are on track to complete significant improvements to our existing power equipment this year, as well as to establish an agreement with Entergy for the commissioning of a new power substation by 2023. Below are highlights on this progress since our last report:

- Plans for a substation on the site of the Carrollton Water Plant are solidifying quickly. Development of the site itself is on target for completion later this year. Meanwhile, the City Council has established a working group that meets bi-weekly to track and monitor progress on the design, construction, and funding of the substation. Entergy and SWBNO have coordinated on critical information, and both the design and investment structure work are underway.
- The SWBNO operations team has pushed aggressively to have our full suite of turbines - T4, T5, and T6 – online prior to hurricane season. We are working aggressively to meet that goal, with a fully weatherized T6 slated for re-commissioning in April (it is currently available for weather above 42 degrees), and both T4 and T5 coming back online in May.

A chart outlining the status of each major component of SWBNO’s power program is below, with status updates in red:

Power Source	Plan	Timeline	Approx. Cost	Funding Source*
Turbine 4	Repair and return to service as soon as possible	Repairs scheduled for completion and re-commissioning in early May	\$1.1M	Drainage system funds
Turbine 5	Repair before next hurricane season – will provide 20MW of additional power for the rest of service life (5-10 years) Stack demo completed; work on control system and stack construction underway	6-8 months Aiming for May testing and re-commissioning	\$5-6M	Insurance Proceeds (less \$1M deductible)
Turbine 6	Winterize and maximize capacity to transform 60Hz into 25Hz power via new frequency changer	February 2021 Completion – bids opening 9.24.20 Finalizing upgrades will require a 2-3 day outage,	\$700,000	Fair Share One-time funds

		tentatively scheduled for March, with project completion in April		
Turbine 7	Procure and install to replace T5 and become cornerstone of modern power generation suite CDBG application submitted and approved; LDEQ Air Permit application proceeding (critical path)	12-14 months Design to begin in February. Completion currently estimated to be Q1 2023, pending receipt of LDEQ permit and availability of unit for purchase.	\$18 - \$20M	\$13M CDBG funds; \$4M Fair Share recurring funds
Frequency Changer	Procure and bring on site for utilization with T6 to maximize machine capacity RFP re-bid expected early Feb.	8 months Project timeline will be updated after bidder responses received	\$16M	\$13M Fair Share/HMGP funds; Capital Outlay funds (pending approval)
Substation Site (C7/C8)	Development of site necessary for substation construction, placement of frequency changers, and T7	Spring 2021 Completion On target for Q2 of 2021 for C7 Basin; Q4 for C8 Basin	\$8.5M	\$7M State Capital Outlay funds

**Where funding sources do not match the total cost, the difference will be funded through capital budget earmarks*

Despite these significant developments and plans, our available power remains in a fragile state. Our frequency changers, EMDs, Turbine 1 and Turbine 6 provide most of our self-generated power

during rain events. We continue to make electrical and mechanical adjustments to our five EMDs, as we will rely on them heavily until T4 and T5 are back online in May.

Entergy continues to power our 60 Hz drainage pumps (two large pumps at DPS 1). If we lose Entergy power, we replace it with 60 Hz power generated by T6. If we lose 25 Hz power from another source, we can use T6 in conjunction with the Carrollton frequency changer - but in that scenario, T6 can only produce 6 MW of 25 Hz power and 9 MW of 60 Hz power.

Available Power:

Unit	Frequency	Capacity in MW	Available
T1	25 Hz	Approx. 6 MW	6
T3	25 Hz	Approx. 6 MW	6
T4	25 Hz	20 MW	0
T5	25 Hz	20 MW	0
Carrollton Frequency Changers 1&2	Converts 60 to 25Hz	8.5 MW	8.5
Station D Frequency Changers 3&4	Converts 60 to 25Hz	12 MW	12
Five EMDs	25Hz	12.5MW (total)	12.5
		Total 25 Hz:	39 MW
T6	60 Hz	15 MW	15 (60 Hz)

With regard to drainage, we have used the drier winter season to be proactive on a number of fronts:

- We are pleased to report that our strong partnership with the Corps of Engineers continues. We toured the Algiers Drainage Canal project together in December, which is progressing on schedule and will provide additional drainage capacity for Algiers, particularly along General DeGaulle. This month, Congress announced approval of an additional \$30M of federal funding to continue expanding the project.
- Although grass growth does not pose as much of a threat to drainage in the winter, we have kept up efforts to clean major canals. Since our last report, we have cleared another 200 yards of debris and focused on large tree and overgrowth cleanout in the Peoples Avenue Canal. Underground canal inspection efforts are on hold pending funding availability.

II. CAPITAL IMPROVEMENTS

In addition to the work detailed above on our power program, the operations team has also advanced several significant water and sewer capital improvement projects in the last quarter:

Claiborne Pumping Station

As part of the FEMA-funded water hammer hazard mitigation program, we are in the midst of a \$35M rehabilitation of the Claiborne potable water pumping station. This project, which kicked off in the fall, will essentially modernize all equipment inside the facility – including four water pumps, new motors for each, 10 new valves, and 4 new flow meters. We are addressing two pumps at a time to maintain a safe level of redundancy in the system, with the first two scheduled for completion this summer.

JIRR

Coordination efforts between SWBNO and DPW to replace damaged and old infrastructure are strong. SWBNO's FEMA Settlement allocates \$264 Million Federal Dollars for water and sewer infrastructure. The City's FEMA Settlement provides \$1.2 Billion Federal Dollars for streets and drainage. When DPW decides on full reconstruction of a block, SWBNO evaluates what needs to be done on the water and sewer mains in those streets and performs the work in conjunction with the City's efforts to maximize efficiency and funding.

Coordination efforts on each project include:

- Resident and customer communications
- Funding - FEMA, System, WIFIA, LDEQ, Bond
- Risk Analysis – Keeping customers in Service During Work
- Tools – RoadWork NOLA, GIS, IRIS, Dashboard
- Monthly Executive Leadership Meetings
- Weekly Leader Meetings
- Both EDBP, Legal, Purchasing & Accounting Departments
- Work with Engineers and Contractors
- Dig Once Policy

Since May 2018, 24 projects have been completed totaling \$134M. Currently, another 46 projects are in active construction, with an estimated value of \$415M. SWBNO and DPW plan to start an additional 87 projects this year. All construction using these FEMA funds must be complete by June 2023.

Valve Repair Program

In an effort to enable water main repairs in the most effective and least expensive way possible, we have budgeted for and have started implementing a proactive valve replacement program. Over the past several years, the Networks team has created a database of thousands of valves as they have performed work across the city, along with the operational status of each.

Now, we are steadily replacing the valves that do not function. More functioning valves will enable the team to quickly isolate and repair water main leaks and breaks without interrupting

service to customers on a widespread basis and will reduce the likelihood of boil water advisories. In the fourth quarter of 2020, we replaced 228 valves.

III. CUSTOMER SERVICE

On the customer service front, we have achieved two major milestones since our last report. We hired our first Chief Customer Service Officer, Rene Gonzalez, in January. Rene has over 20 years of experience, most recently as the customer service manager for the Eugene Water & Electric Board in Oregon. He brings a level of expertise in the field that will certainly enhance our operations. We also executed a contract for Automated Meter Infrastructure (AMI) project management in December, and the official AMI project kickoff is scheduled for February 3. Understanding the criticality of this effort, we are working to find a funding source that will allow us to implement the new system as quickly as possible.

In the meantime, billing continues to be both our top challenge and our top priority as an agency. While customers experience a myriad of issues with their bills, the underlying cause for most issues is the same: use of estimates instead of actual reads to generate monthly bills. We developed an aggressive plan to increase meter reads and have been implementing the solution since mid-August. Please see below for details on the meter reading update, as well as bill investigations and other customer service metrics:

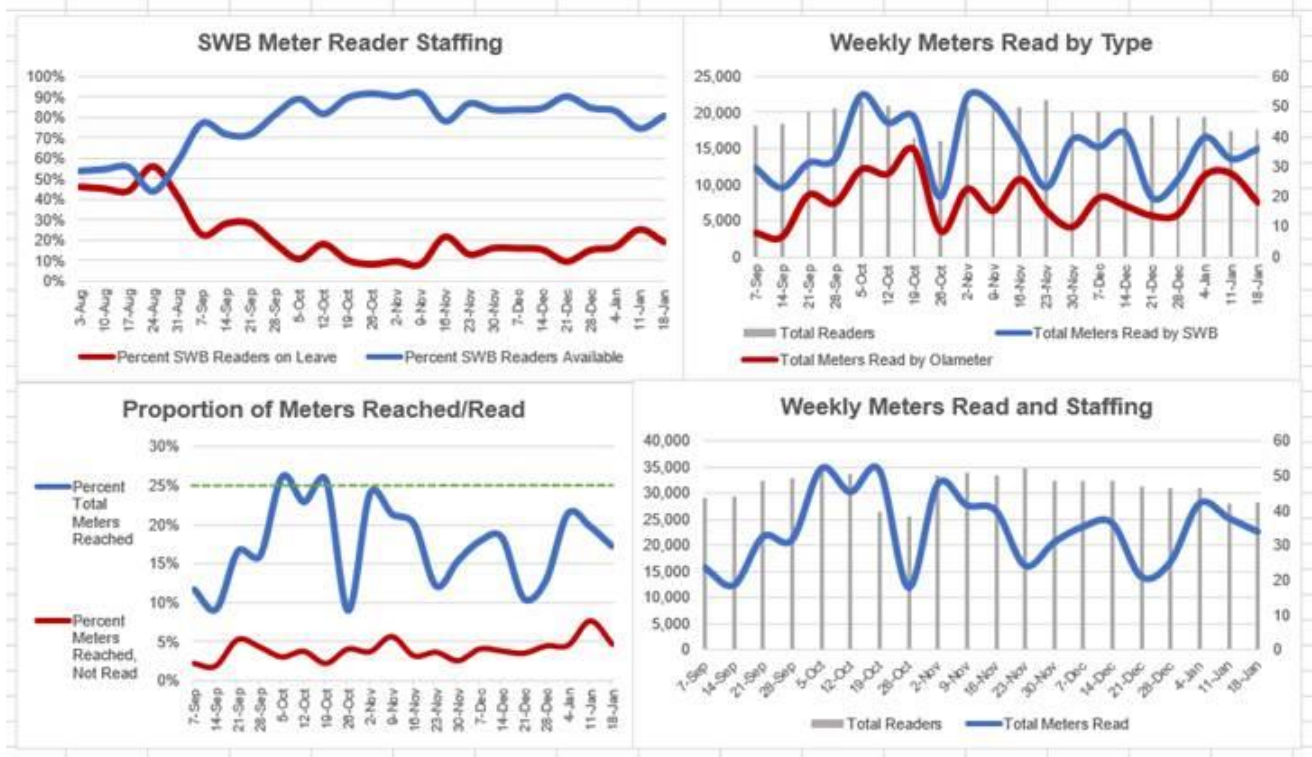
Meter Reading:

Last June, we reported that we were considering staff augmentation to increase the number of meters we can read per month. In mid-August, we contracted with Olameter, a professional meter-reading organization, to bring 20 additional readers to supplement our staff for 40 hours per week. The Olameter team began reading meters in September and continued to augment our staff through the expiration of the contract at the end of January.

Over the course of the engagement, Olameter helped our staff reach our stated goal of 80% actual reads/month in November (we reached almost 90% of meters scheduled for reads over several weeks that month). Consistency in maintaining that goal over the holidays, however, was a challenge. In past weeks, the percentage has fallen to around 70%. We also found that the quality of reads reported by the contractor staff was significantly lower than that of the SWBNO staff, resulting in an increase in bills flagged for irregular reads. Details on our response to that issue are below.

Our longer-term plan was to supplement our internal meter reading team to have a sufficient number of meter readers to cover every route on a daily basis, even with expected absences or leave. As of today, we have met that goal. There are 60 hired meter readers in our department, all of whom will have undergone the full 6-week training regimen and be reading meters before the end of this quarter.

The below charts reflect data on our meter-reading initiative since September:



Billing:

A top billing priority for the past quarter was to normalize the number of days in a billing cycle for better consistency. We began tracking the average number of days for all billing cycles in a month in October, with a goal of maintaining between 28-32 days. Per the data below, we met that goal in November – the same month we met our meter reading goal. The average number of days per cycle increased again in December, which was the result of fewer actual meter reads.

Average # of days in cycles	
Oct-20	33
Nov-20	32
Dec-20	36

As mentioned above, the quality of meter reads declined significantly during the Olameter staff augmentation. Abnormal or questionable meter reads are flagged by our system and pulled for a “re-read” by a meter inspector. During December, the system was flagging upwards of 1,500 bills

per day. The meter inspectors are only able to re-read 300 meters per day. This created a significant backlog of bills that needed to be manually reviewed before they could be released to customers, which in turn delayed how quickly bills could be sent. Due to the delay, many customers received two bills over a short timeframe.

To address this issue, we increased customer communications on the cause of the delay using bill inserts (see below). We also decided to perform a single batch of estimates to help catch up on the backlog. We anticipate that having a full team of 60 readers, all of whom have undergone the SWBNO 6-week meter training, will help resolve this issue.

Dear valued customer,

As part of our efforts to ensure customers receive accurate bills, your bill was flagged for a second review for correctness. Our review process is a manual process in which a Billing staff member reviews the internal notes attached to the bill along with the meter reading history of the account. If the reading is verified by either a review of the notes or a re-read of your meter, the bill is considered correct and released. If not, the bill is estimated. That is why you are receiving this bill on a later date than usual and will likely receive another soon in order to keep your billing cycle on track.

If you have any questions or concerns, please contact our Customer Service Call Center at 504-52-WATER.

We thank you for your patience and understanding

Sewerage and Water Board of New Orleans

We have also taken the following steps to continue to improve the billing and investigation processes:

- Updated scripts on estimates, “true-up” bills, and flagged bills, and re-trained customer service representatives on these topics
- Changed language on our web site regarding bill investigations to remove misleading wording on the impact of public-side street repairs on bills
- Updated the timing and content of letters sent to customers during an investigation to make the processes clearer

The number of bill disputes in our system remains fairly steady at around 2,000 on any given day. For the month of January, we averaged 48 new disputes per day and resolved an average of 73 disputes per day.

Administrative hearings are taking place virtually. In January, we held a total of 133 hearings. We will provide additional information reflecting trends and backlogs, if any, prior to the February 23 Public Works meeting.

Customer Service Experience:

Satellite Offices

We have made significant progress on our commitment to meet our customers where they are by establishing provisional full service Customer Care Centers across the city. We opened satellite offices in the Sanchez Center in the Lower Ninth Ward and in the Rosa Keller Library in Broadmoor. We are now working with the Mayor's OBES office to establish an office in the New Orleans East Library.

We also want to reinforce our messaging to let customers know the locations are available as COVID restrictions begin to lift in the coming months. In the meantime, we continue to advertise via social media and on our web site. Please see below for details on each location:

Rosa Keller Library, 4300 S. Broad Street

- December 10, 2020 – Start up
- Every Thursday, 10am to 4pm, by appointment
- 2 Customer Service Reps. Provide full customer service experience
- January 5, 2021 – Library closed due to COVID compliance
- February 5, 2021 – Library will reopen

Primary Walk-In Customer Service Center

625 St. Joseph Street Main Office - Full Service Customer Care Center

- 8am – 5pm, Monday – Friday

Algiers Customer Service Center

4021 Behrman Place, Suite M-2 - Algiers Full Service Customer Care Center

- 8:30am – 4:30pm, Monday - Friday

Sanchez Community Center – 1616 Caffin Ave.

- October 14, 2020 – Start up
- Every Wednesday, 8:30am to 4pm
- 2 Customer Service Reps. Provide full customer service experience

Proposed East New Orleans Regional Library, 5641 Read Blvd 70127

- Every Tuesday – time to be established

Call Center Metrics

Last year saw a spike in call wait times to nearly 10 minutes due to COVID staffing issues and logistics. We addressed those issues, and call wait times decreased to under two minutes by September, where they have remained since.

We track and report call-center metrics on a daily and monthly basis. Below is the data for December 2020:

	Calls Received	Calls Dropped	% Answered	Average Wait Time	Payment Arrangements	Walk-In Customers	E-mails Received	Total Customers Served
	23,147	2,056	91.1 %	1 min 56 secs	130	2,801	3,745	38,802

System Upgrades

We have purchased and are in the process of implementing a system called **Verint EM Professional**, which will help modernize and streamline our customer service processes. A few of the benefits it will deliver include:

- Customer Request Tracking – every request made to SWBNO by a customer, such as opening an account, requesting a refund, requesting a hearing, or asking to speak to a supervisor will be given a tracking number. This tracking number can be referenced anytime a customer wishes to inquire on its progress toward completeness.
- Simplification of Work – Currently customer service representative must navigate upwards of five different computer-based resources to fully assist a customer. Verint EM Pro will combine many of the resources of the disparate systems into one location easily accessed by the representative. This will improve the speed of service.
- Consistency – Verint EM Pro will guide representatives through the customer service engagement so that every customer will receive the same response each time a similar request or issue is presented to SWBNO
- Improved Collaboration – Work requests that require multiple SWBNO departments to service a customer need will be tracked and handled by one platform, so the next department in line will know when it is their turn, and the queue of pending work will always be visible.
- Escalation – If a work task goes uncompleted, a series of escalations to higher authority can be programmed to guarantee a customer’s need does not go unfulfilled.

We estimate that the Verint Pro system will be implemented, including employee training, by June 30, 2021.

We also recognize the need to connect directly with customers to keep them informed of events that may impact their day, such as major water main breaks and water service interruptions. We recently purchased software called **Everbridge**, a text alert system that will allow us to geotarget messages to impacted customers. This is the same system used by the New Orleans Office of Homeland Security and Emergency Preparedness. Due to the vulnerabilities of our water system and the number of unplanned water outages due to water main breaks, there will be times when we are unable to inform customers of a service disruption. But we are committed to working toward notifying customers directly whenever possible.

Training is underway and we are working to establish a number of internal systems. We anticipate having a functioning text alert operation by the end of March.

Service Requests (Work Orders)

Recognizing that our response to customer field requests is a critical component of customer service, we compiled the below data to provide context on how we're doing. When a request for service is validated and an action is required, Work Orders are developed describing the work needed and used to track progress from start to finish. Work Orders include a broad scope of work, ranging from water main breaks to sewer line cleaning and beyond. Currently, they are prioritized by category based on the urgency of the request:

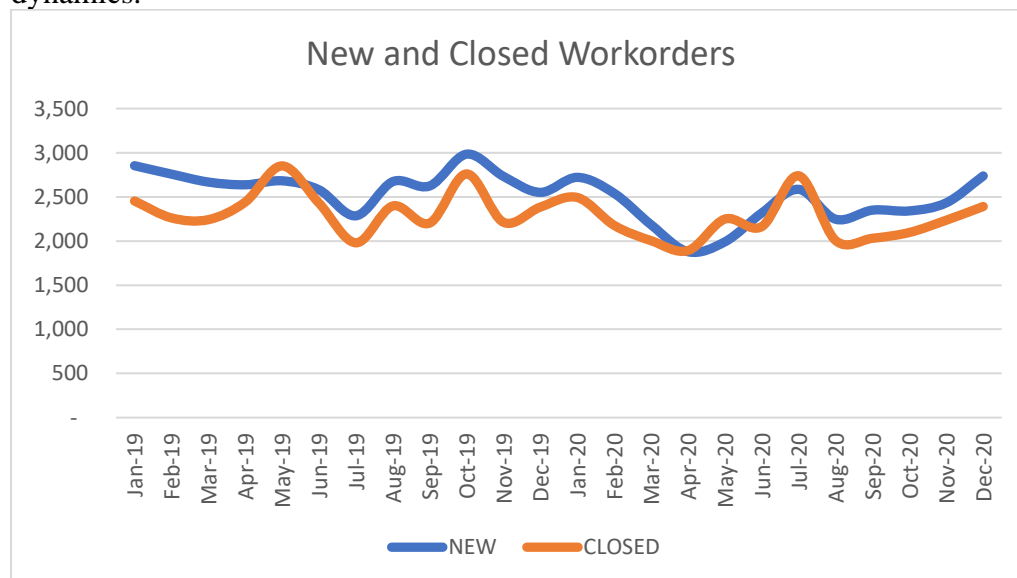
Category "A" – requires immediate attention; for example, a ruptured major water main or overflowing sewer. There will be significant risk in property damage or public health

Category "B" – requires same-day attention (or as close to that as is feasible); for example, a service line leak, very low water pressure or intermittent sewer blockages. Lower risk of damage or concerns with public health.

Category "C" – requires attention that can be scheduled with other projects for efficiency, for example, a minor leak near a sidewalk, in the street, requests for new connections or other work that is needed but no imminent threat of property loss or public health concerns.

Because Category A responses are immediate, there is no time for planning or coordination. As the number of Category A Work Orders increase, overall productivity decreases. Category C Work Orders allow more time to plan and group together in geographic areas and as such, can be accomplished at a greater rate of production. Given the current age of most the infrastructure, the rate of decline in the system has been increasing, leading to more Category A & B Work Orders.

When the rate of new Work Orders out paces the rate of completions, backlogs develop. As depicted in the graph below, the number of Work Orders and Backlogs fluctuates on a regular basis. From early 2019 to Spring 2020 the number of backlog projects were trending downward. The reductions were credited to optimizing management of the Work Orders. As the trend is now in an increasing pattern, it is a good indication that the rate of system decline is greater than the current ability to complete requested repairs. The below chart does a good job illustrating those dynamics.



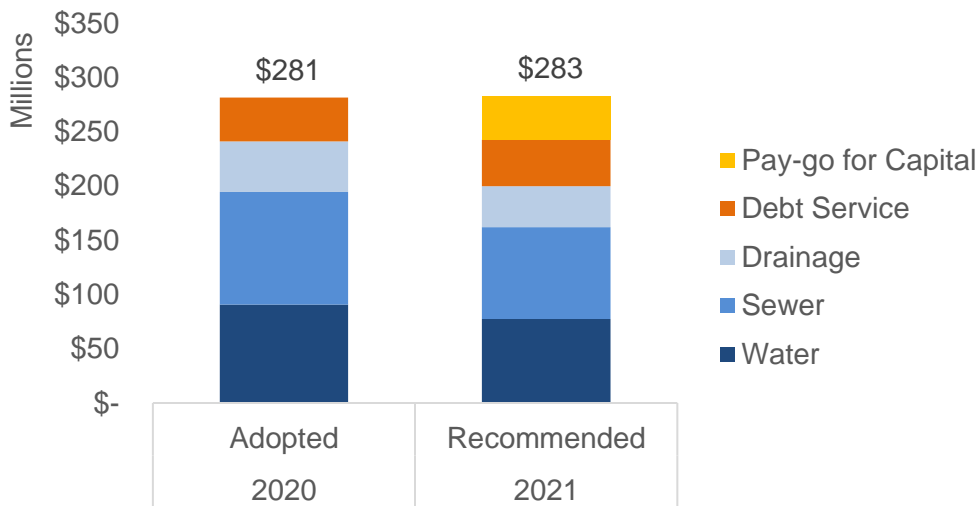
IV. FINANCES

2021 Budget

Since our last report, we have finalized and adopted our 2021 Budget. Below are some key takeaways from the budget process, including snapshots of both the operating and capital budgets. Attached to this report are the full Budget presentation and accompanying worksheets provided to our Board in December. The full budget can be found online at www.swbno.org.

- Although a 10 percent rate increase went into effect on January 1, 2020, revenue collections in 2020 were nearly flat to 2019 levels (with the exception of drainage revenue, which increased slightly due to the roll forward).
- Accordingly, the 2020 budget (which was approved in December of last year, before the impacts of the pandemic were known) was not the appropriate baseline for the 2021 budget. Rather, we used actual 2019 expenditures as a guide for how to manage budgeted costs in an environment where net revenues in 2021 are expected to mirror those of 2019.
- To manage the decline, we are taking proactive steps to manage costs given lower-than-expected revenue and collections during the calendar year:
 - Operating budget reductions of approximately \$41 million, or 17 percent, were identified across the utility. These reductions are consistent with the City of New Orleans’ directive to City departments to identify 20 percent savings in their budget submissions.
 - Nearly all funded vacancies were eliminated in the 2021 Budget.
 - Available resources will be closely monitored throughout calendar year 2021. Management retains the flexibility to hire critical positions on an as-needed basis to provide essential services to the City’s residents.

Operating Budget Snapshot:



Capital Budget & Sources Snapshot:

System	Sources by System	2021 Capital Budget	Difference
Water*	\$87,045,733	218,489,930	(\$131,444,196)
Sewer	\$342,371,336	188,632,679	\$153,738,656
Drainage	\$68,558,333	58,367,652	\$10,190,682
TOTAL	\$497,975,402	\$465,490,260	\$32,485,142

Estimated 2021 Capital Sources		
	Amount	System(s)
FEMA Reimbursements	\$179,281,000	Water/Sewer
Remaining 2020A Bond Proceeds	\$6,000,000	Sewer
Fair Share Funding	\$4,000,000	Water/Drainage
New Bond Proceeds	\$76,605,402	Sewer
WIFIA	\$118,864,000	Sewer
DEQ	\$20,000,000	Sewer
Pay-Go	\$40,000,000	All
Power Program	\$37,700,000	Drainage
State	\$15,525,000	Drainage
TOTAL	\$497,975,402	

Innovative Funding Efforts

We continue to aggressively seek funding for our critical capital projects, including the power program, improvements to the water distribution infrastructure, the water treatment plants, and AMI. Our federal, state and local partners have supported us, and our collective efforts have produced the following revenue opportunities:

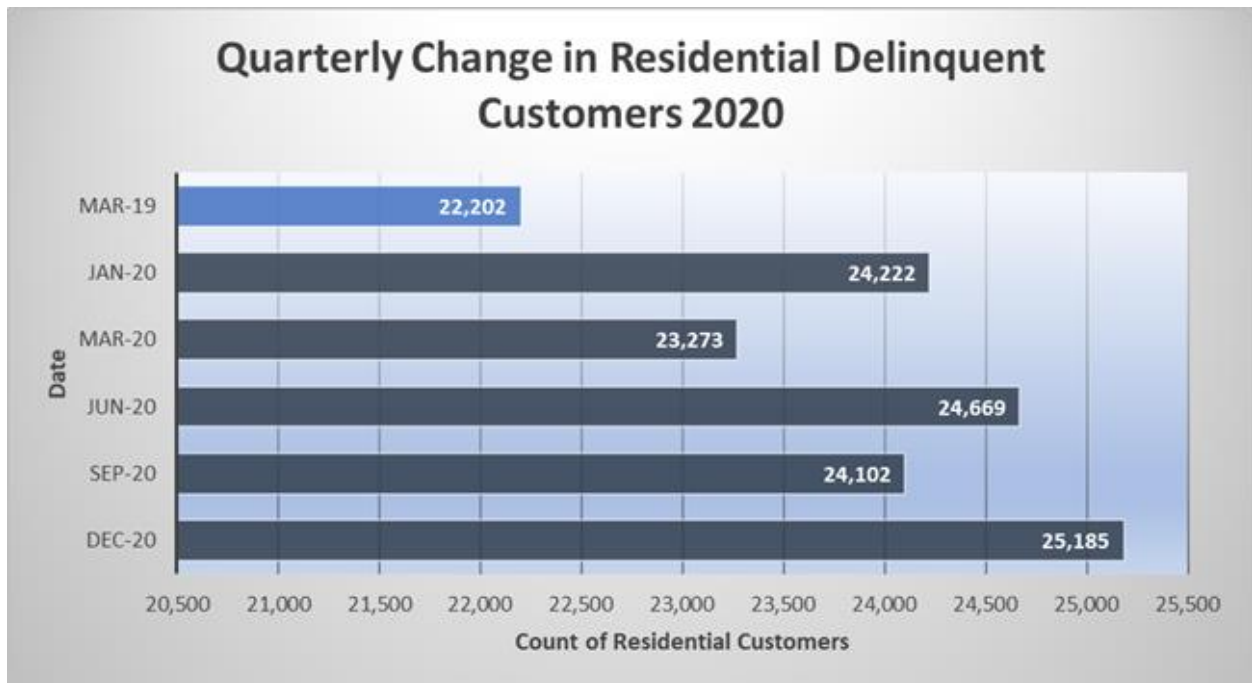
- **Fair Share:** As of January 29, we have received \$6.9M in Fair Share dollars through the City’s Infrastructure Maintenance Fund. To date, funds have been spent on our meter reading initiative and matching funds for SELA projects. This year, funding is slated for several

projects approved by the Infrastructure Advisory Board, including power improvements, water filter gallery upgrades, and AMI Phase 1.

- **Sewer Bonds:** Working closely with the Board of Liquidation, we closed on a total package of \$75 million in sewer bond placements last year. The funds will be used to complete critical sewer-related projects and will count as a match toward our WIFIA loan.
- **Water & Sewer Bond Refunding:** We expect to go to market during the week of February 1 with two transactions totaling approximately \$375M to restructure the Board's existing Series 2014 and Series 2015 bond issues. The restructure is expected to produce present value debt service savings of approximately \$28M specifically providing 2021 budget relief of more than \$23M. In addition, an insurance surety policy is expected to replace a portion of the cash currently held in the Debt Service Reserve Fund, freeing up more than \$20M that can be used for capital expenditures. These estimates are subject to change given that the refinancing is sensitive and subject to market rate volatility until rates are locked in, which is expected to occur on Thursday afternoon, February 4th.
- **Capital Outlay:** Working with the City's team and our legislative delegation, we continue to receive Capital Outlay funding from the State to support our substation and related projects. We are actively spending down the \$7 million appropriation from 2019 on the demolition and preparation of a site at the Carrollton Water Plant for construction of the substation (which will be complete this year), and have preliminary approval for use of the next \$12 million of available funding to support purchase and installation of equipment necessary to utilize the new static frequency changer we will purchase this year.
- **BRIC Applications:** We submitted two BRIC (Building Resilient Infrastructure and Communities) applications in early January that leverage the existing Power Master Plan and relationships with Sandia National Laboratories. The first application is designed to cover the funding gap on the capital funding needs for T8, T9, and the additional components needed for the turbines and SFC to integrate with the substation. The second is designed to fund an operational and economic feasibility study to optimize operational stability, overall system resiliency, and long-term sustainability through the incorporation of renewable energy sources.
- **COVID Relief:** The most recent COVID relief package out of Washington, D.C. included \$638M of funding for water utility customer relief. Funds will be distributed to states based upon poverty-level data, then implemented through utility programming. Details are forthcoming; in the meantime, we are working with the City to monitor progress on fund distribution.
- **Federal Infrastructure Package:** While not yet a reality, we are working closely with the City to plan ahead for infrastructure funding opportunities that we anticipate will be developed by the Biden Administration. If and when those opportunities materialize, we have compiled a short-list of projects – including completion of our power master plan and water treatment plant upgrades, among others – that currently are unfunded but would be critical for our continued operational improvement.

Delinquency/AR

As expected, delinquent accounts increased significantly over the past months – with a correlating decline in billing revenue – due to COVID-19 and billing issues. The below graphs show improvement in delinquent accounts at the beginning of this year. In March, however, we suspended our water shut-off and late fee policies to support our customers facing COVID-related challenges (like many other water utilities around the country). Those policies remain suspended while we rebuild our meter reading team and improve billing reliability.



The total sum of overdue accounts – those active but more than 60 days past due – has increased by nearly \$11M million since last March.

Quarterly Change in Delinquent Residential Accounts Receivable 2020



Finally, we are actively working on year-end financials and will provide detailed December information prior to the Public Works Committee meeting on February 23. We are available at your convenience to answer any specific questions you may have on these documents, or any other topic included in this report.