The Sewerage & Water Board

OF NEW ORLEANS

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September 24, 2020

Dear Chairman Giarrusso and members of the Public Works Committee:

Below please find the Sewerage and Water Board's (SWBNO) third quarterly report to the Public Works Committee, as required by Louisiana Revised Statute 33:4091. Attachments to this report include the following which, taken together with the content of the report, also comprise SWBNO's annual report on the agency's "acts, doings, receipts and expenditures," pursuant to La. R.S. 33:4091:

- Canal Inspection and Cleaning Updated Charts, Exhibit 1
- ABS Causation Report, Exhibit 2 **[Will supplement when available]**
- Dispute Resolution Process Flowcharts, Exhibit 3
- 2020 Contracts & DBE Commitments, Exhibit 4
- Financial Cashflow and Revenue Collections Summaries, Exhibit 5
- 2019 Published CAFR, Exhibit 6

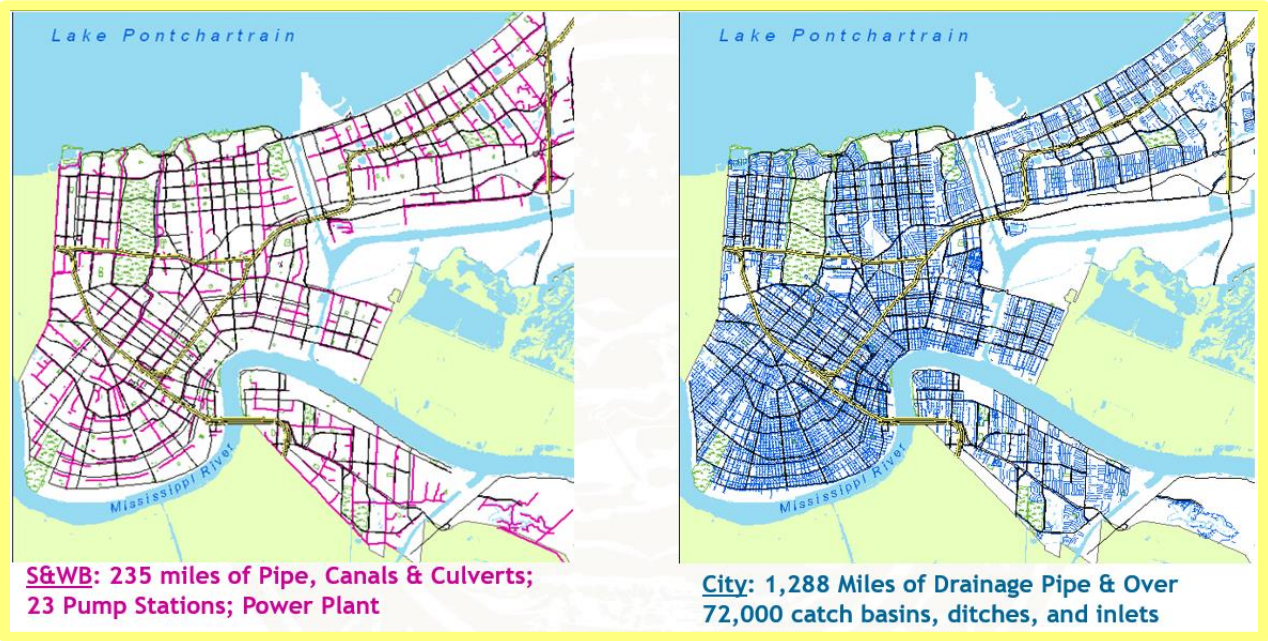
In addition to the statutory reporting requirements, we also have included information on drainage, power, billing, and financial efforts since our last quarterly report in June of this year. The report is organized in four sections addressing each of these topics.

We are available at your convenience to discuss any of the topics in further depth. We look forward to a fruitful discussion at the Public Works Committee meeting next week.

Regards,

Ghassan Korban
Executive Director

I. DRAINAGE



As hurricane season has progressed, we have continued to inspect and clean our 235 miles of large pipes, culverts and canals:

- As of June, SWBNO had inspected 35 open canals. In the last three months, we have inspected **7 more** open canals, as well as all drainage pumping stations. Some of those inspections have resulted in the removal of significant blockages including a full-size couch, which was removed from the Morrison Canal in New Orleans East on September 13, ahead of Hurricane Sally.

- In total, SWBNO has now removed an additional **555 cubic yards** of debris from our pumping stations and canals and **1,764 cubic yards** of sediment from the city's open canals since June.

- As of June, we had inspected 3.13 miles of underground canals as part of our recurring canal inspection plan. Sine then, we have added another **1.2 miles** of planned inspections in Drainage Basins 1 and 6 (Uptown, Broadmoor, Central City, Carrollton, Riverbend), which are earmarked for attention in year one of our five-year closed canal inspection plan. We have also inspected another 2.0 miles of open and closed canals at the request of customers.

- Our team has also made strides in exploring cost-saving alternatives to contracting out some portion of this inspection work. To date, we have set up demos with various inspection and cleaning companies to review equipment. There will be areas where contracting out the work will make more sense, such as flying drones with Lidar to inspect open canals.

As we remain vigilant in the last two months of hurricane season, our maintenance teams will continue to proactively inspect and clean canals, as well as empty the suction basins at each of our drainage pumping stations to avoid buildup.

Attached as Exhibit 1 are detailed charts of our canal cleaning efforts.

II. POWER PROGRAM

We have reached several critical milestones in the development of our modern power program since our June report:

- In August, GE concluded its investigation of Turbine 5 (T5) to identify potential damage resulting from last December's explosion. The investigators found no significant or irreversible damage to the body of the turbine. The primary damage was to the stack, which is repairable in a relatively short timeframe of 6-8 months. To ensure the safety of the employees working with T5, we also intend to completely improve the machine's control system (although it was not visibly damaged).

- Earlier this month, we received a debriefing from ABS Group on the root cause analysis for the T5 explosion. We expect to receive the final report at the end of this month and will share it upon receipt. We understand that the cause of the explosion was due to a mechanical failure, and SWBNO was not at fault. Accordingly, we expect to receive insurance proceeds over and above our $1 million deductible to be used in the repair of the turbine (cost of the control system improvement is excluded).

- Finally, the State has approved SWBNO's application for $13 million of CDBG funds for use in purchasing a new, modern turbine (known as "T7"). T7 eventually will replace T5 and become part of SWBNO's modernized suite of self-power generation that will be utilized as a backup power source once the substation is online as the primary source of power (please see additional details on the substation proposal below). The permitting and procurement process for CDBG-funded projects can take up to 12 months; as a result, T7 will not be on-site and operating prior to next year's hurricane season.

Given these developments – particularly the lack of significant damage to T5 and the timeline for procuring T7 – SWBNO has made the decision to repair T5, with the intent to have it online and available again for use by the 2021 hurricane season.

A chart outlining the status of each major component of SWBNO's power program is below:

Power Source	Plan	Timeline	Approx. Cost	Funding Source*
Turbine 5	Repair before next hurricane season – will provide 20MW of additional power for the rest of service life (5-10 years)	6-8 months	$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	$700,000	Fair Share One-time funds
Turbine 7	Procure and install to replace T5 and become cornerstone of modern power generation suite	12-14 months	$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	8 months	$16M	$13M Fair Share/HMPG funds; drainage system funds
Substation Site (C7/C8)**	Development of site necessary for substation construction, placement of frequency changers, and T7	Spring 2021 Completion	$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*

***See below for an update on the substation project proposal.*

While these major projects are taking shape, we have continued to make improvements to our other existing equipment:

- **Central Control: Ring Bus Upgrades – Phase 1** Complete. This project, completed in July, enables us to run tests on our 25Hz power equipment with simulated loads and helps to avoid unexpected issues during rain or other high-power events. A second phase will need to be completed after hurricane season ends.

- **Installation of a new 60 Hz feeder from Turbine 6 to CFC to back up Entergy power –** Complete. Also finished in September, this project provides additional redundancy in the event of an Entergy outage.

- **Design of feeder relocation (aerial to underground) from Station D Frequency Changers to Elysian Fields Ave. –** On hold due to lack of funding. In-house design is on-going. This project, once complete, would provide reliable 25Hz feeder cables from DPS 3 and DPS 7 to Station D, giving them access to our frequency changers at Station D.

- **Upgrade of 25 Hz outdoor switch gear at CWP –** This project replaced the switchgear at the Carrollton Plant, which was well beyond its service life. The upgrade will significantly increase reliability and flexibility at the plant to route power where it is needed during a storm. Equipment is on-site. Installation is pending asbestos abatement and a permanent slab construction.

Despite these significant developments and plans, our available power supply has not changed significantly since our last report in June. Turbines 4 and 6 continue to provide most of our self-generated power during rain events, with T1 on standby and T3 available for emergency use.

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 3.75 MW of 25 Hz power. We also still have all 5 EMDs at our disposal, which can supplement the loss of 25 Hz power.

Available Power:

Unit	Frequency	Capacity in MW	Available
T1	25 Hz	Approx. 6 MW	6
T3 Emergency use only	25 Hz	Approx. 6 MW	6
T4	25 Hz	20 MW	17*
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:	**62 MW**
T6	60 Hz	15 MW	15 60 Hz)

*T4 has a nameplate capacity of 20, but we limit its use to 17MW out of an abundance of caution to avoid tripping.

Finally, we continue to work closely with Entergy on developing a substation on-site at the Carrollton Water Plant. This project, which is Phase One of our Power Master Plan (shared with our June report), will become SWBNO's primary power source once operational. Technical and

engineering teams at SWBNO and Entergy have met several times in the last month, and Entergy is expected to provide a draft proposal for the project in October.

III. BILLING

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:

- **Plan of action: Improve billing by decreasing customer estimates through meter reading staff augmentation**
- **Goal: minimum 80% actual reads**
- **Timeline: Three months (by Dec. 31, 2020)**

In 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 spent two weeks shadowing our staff and getting used to our unique meter system. They began reading meters in September.[1]

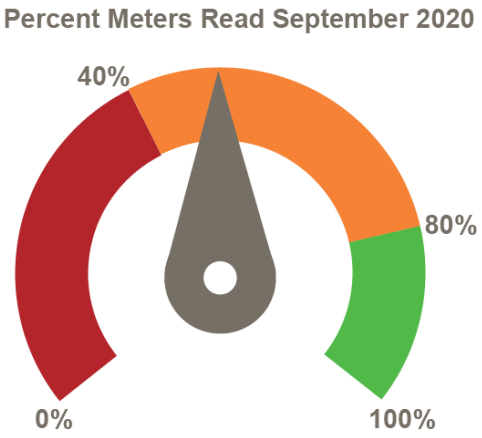
In addition to hiring Olameter, our internal team implemented a hiring initiative and increased the number of filled positions to 36 out of 60. Last week, we approved the hiring of an additional 24 readers and expect them to be on board and trained by the end of the year. As of today, there are 56 available meter readers between the SWBNO and Olameter teams.

We have developed a metric to chart the progress of this effort, with the ultimate goal of reading a minimum of 80% of our customers' meters every month. In the first month of implementation, actual reads have increased 10% (despite almost a week of storm-related days off, holidays, and retention issues). Given this result, we believe we can reach our goal in three months or by the end of the year. Below is a chart and corresponding graphic showing progress thus far:

Month	Average # of readers available/day	# of meters read	% of meters read
August	15	46,238	40%
September	36	57,772[2]	50%

[1] It is worth noting that Olameter has faced the same hiring and retention issues that have plagued SWBNO over the past months. Low pay, uncomfortable weather, and the availability of alternative revenue during COVID have impacted both teams. As of September 21, Olameter has provided the 20 meter readers requested (although a number of them are still in training).

[2] Projected number, based on the first 3 weeks of actual reads. Will be updated at the Public Works meeting, when final numbers for the month are received.



Recognizing that staff augmentation is an expensive option, and in an effort to support our SWBNO meter readers, we developed a meter reading Special Incentive Pay Program. The program, which was approved by the Civil Service Commission last week, provides the following:

- Pays employees additional pay for additional work on a monthly basis, *per meter read or per service order completed* above established monthly baselines.
- Eligibility to participate based on required monthly attendance, less than 5 skipped reads, and less than 5 erroneous reads.
- Participating/eligible Meter Reading employees can additionally earn up to an additional $300/month Oct-April, $420/month May-September.

An additional initiative approved by the Civil Service Commission improves the career ladder within meter reading by adding an additional classified job title in the meter reading career track and renames all of the meter reading job titles with a new pay scale applied. This will effectively shorten promotion wait periods after the first six months of apprenticeship. Most meter reading employees will be able to move into new equivalent classified titles with the increased pay plan, which will effectively amount to an annual pay raises of approximately $1500-$2000 for qualifying meter reader employees.

Estimate Improvements:

- **Goal: Improve the accuracy of estimates to reduce high bills and unexpected "true-up" bills**
- **Plan of action: Change the formula used to calculate estimates to capture more historic actual reads, and ensure 28-32 day billing cycles**
- **Timeline: System changes completed.**

We recognize that estimating customers' bills causes inaccuracies and confusion. In addition to solving the root cause of this problem by increasing actual reads, we have focused on two additional fixes to improve estimate accuracy.

We previously used an estimation formula that sought two actual reads in the past four months of usage. That formula was proving unworkable given the reduction in actual reads for several months in a row in the spring and summer. As a result, customers were receiving the "default" estimate of 170 gallons/day (an industry average). For many customers, this was far too high or low and caused extreme "true-up" bills when they finally received an actual read.

To improve the formula, we changed the billing system to reach back 10 months to find two undisputed, actual reads upon which to base the estimate. This change has been in place for approximately 6 weeks, and we hope to begin seeing positive results in the near future.

Additionally, we issued a series of "catch-up" bills in July to re-set the clock on our billing cycles. Several cycles – which are based on meter reading routes – had grown to longer than our usual cap of around 32-34 days as we struggled to get actual reads. The longer cycles caused higher bills, and some accounts were pushed into higher water rate tiers as a result. Recognizing the effect of this issue, we made an effort to re-set those cycles. As of today, all cycles should be back in the 28-32 day range.

<u>Investigation Process:</u>

- **Goal: Streamline and improve the bill investigation process, from initial dispute through hearing (if necessary)**
- **Plan of action: Revisit investigation policies and procedures to identify process flaws and potential efficiencies**
- **Timeline: Ongoing**

As of August, it takes on average 32 days to complete a typical bill dispute resolution (exclusive of scheduling a hearing) – down from 42 days in July. Below is a summary of the current bill dispute process, and attached as Exhibit 3 are **detailed flowcharts showing each step of the process.**

1. When a customer calls to report a high bill, the process begins.
    a. High bill reports are received via calls or in-person visits to customer service representatives. They can also be passed on from stakeholders, such as City Council offices.
2. The customer service representative informs the billing department of the complaint by issuing a "reminder note" in CSM (the billing management system).
3. Billing then contacts the customer to verify the request and update contact information.
4. Billing then issues a "Service Order" in CSM to meter reading.
5. A meter reading inspector then performs an on-site inspection to determine if there are any leaks on the property. If a leak is found, the inspector will determine if it is the responsibility of the customer or SWBNO.

a. For leaks on SWBNO's side a "Service Request" is then issued to the Networks Department. If Networks confirms the leak is SWBNO's responsibility, the investigator will upgrade the Service Request to a "Work Order" for a repair.
b. Once the repair is completed, Billing must wait for one full billing cycle to ensure that the problem has been resolved before adjusting the customer's bill.
c. For leaks on the customer's side of the meter, billing informs the customer that he or she is responsible for making the repair.
d. If the customer submits confirmation of a repair from a plumber within 90 days of being informed of the customer's responsibility, a bill adjustment is made. Again, billing must wait one full cycle to ensure the repair resolves the problem before making the adjustment.

6. Throughout this process, customers are sent written notices every 30 days with updates on the investigation.
7. If the customer is dissatisfied with the results of the investigation, he or she may request an administrative hearing.
    a. SWBNO currently is holding virtual administrative hearings.

In our last report, we identified two steps to cut down on the number of erroneously high bills that reach our customers. The first was an automatically generated letter to customers for whom we have seen a high bill trend. The process for creating that automatically generated letter is underway, in partnership with our IT department. The second was bolstering our billing "back of house" team with an additional four analysts to help review and analyze bills before they go out the door. Since July, two of those employees have started, and a third is in the hiring process.

As of September 22, the current number of billing disputes is **1,748**. We continue to average between 1,500 and 2,000 disputes in any given month.

<u>Customer Service Metrics and Updates:</u>

- **Goal: Improve the customer experience by making SWBNO services easier and more accessible**
- **Plan of action: Improve customer wait times and digital services; open a satellite office in New Orleans East**
- **Timeline: 2-3 months**

SWBNO staff has been coordinating with Councilmember Nguyen, local legislators, and Community Voice to establish a satellite office at the Sanchez Center in New Orleans East. The office will be staffed with SWBNO customer service and billing agents for 1-2 days per week (at the outset). A site visit has taken place, and our team hopes to staff the site within the next month.

One unforeseen impact of COVID was the inability to house all of our customer service representatives at the call center safely. As a result, the number of representatives on call at any one time was reduced and call wait times increased accordingly. To solve this service issue, we created space for representatives over the entirety of the St. Joseph building. Today, we are back to normal staffing levels, and call wait times have decreased from **over 10 minutes in July to**

under two minutes in September. Our ultimate goal is to get back to the less than one minute wait time we achieved pre-COVID.

We track and report call-center metrics on a daily and monthly basis. Below is a snapshot of the metrics on September 22:

CALL CENTER METRICS

Transfers	**109**
Acc. Info.	**190**
Consump. History	**2**
Pymnt History	**2**
Billing History	**4**
Pymnt(approved)	**227**
Pymnt(declined)	**11**
Pymnt Extension	**0**

Total Calls Taken	**815**
Total Calls Answered	**768**
Total Dropped Calls	**47**
Percentage Answered	**94.2%**
Total Hours Scheduled	**136.5**
Total Hours Vacant	**26**
Load Balancing Staff	**0**

Average queue time for answered calls Answered Calls	**1 minute 54 seconds**
Average hold time for DROP Calls	**2 Minutes 08 seconds**
Average time agents on a call	**4 minutes 12 Seconds**

To help with that goal, we pursued and are about to finalize a contract with a communications provider to enable our customer service representatives to work remotely. This service will not only improve access on a daily basis, but will enable our team to be available even during storms or other emergencies. In a similar vein, we have contracted with Everbridge to reach our customers via text message. Similar to Entergy and Nola Ready, we will be able to reach customers for emergency alerts and other information when the system goes live next month.

AMI

Finally, we are able to move toward implementing an automated meter infrastructure (AMI). Jacobs Engineering was selected as the Project Manager for this effort, and contract negotiations are underway. We anticipate that Phase 1 of the project – initial meter survey and development of an implementation RFP – will be complete in 12 months. Phase 1 will be funded via Fair Share recurring dollars. Actual AMI implementation likely will take between two and four years, depending on funding availability to the tune of approximately $40-50 million. We continue to pursue all options – including bonds, grants, and private financing – to fund this critical project.

IV. FINANCES

CAFR

SWBNO published its 2019 CAFR on August 31 meeting the time commitment required by the Continuing Disclosure Agreement between SWBNO and its bondholders. The report in its entirety is attached as Exhibit 6 to this report. The annual audit reflects that all debt covenants have been met.

Auditor findings highlight the need for a modern financial management system capable of tracking contract expenditures and interfacing with payroll and pension functions. We are making the investment to replace our outdated AFIN system with a comprehensive financial management system a budget priority in 2021. We currently are working on an RFP scope for a project manager to oversee this major purchase and implementation project.

Funding/revenue efforts

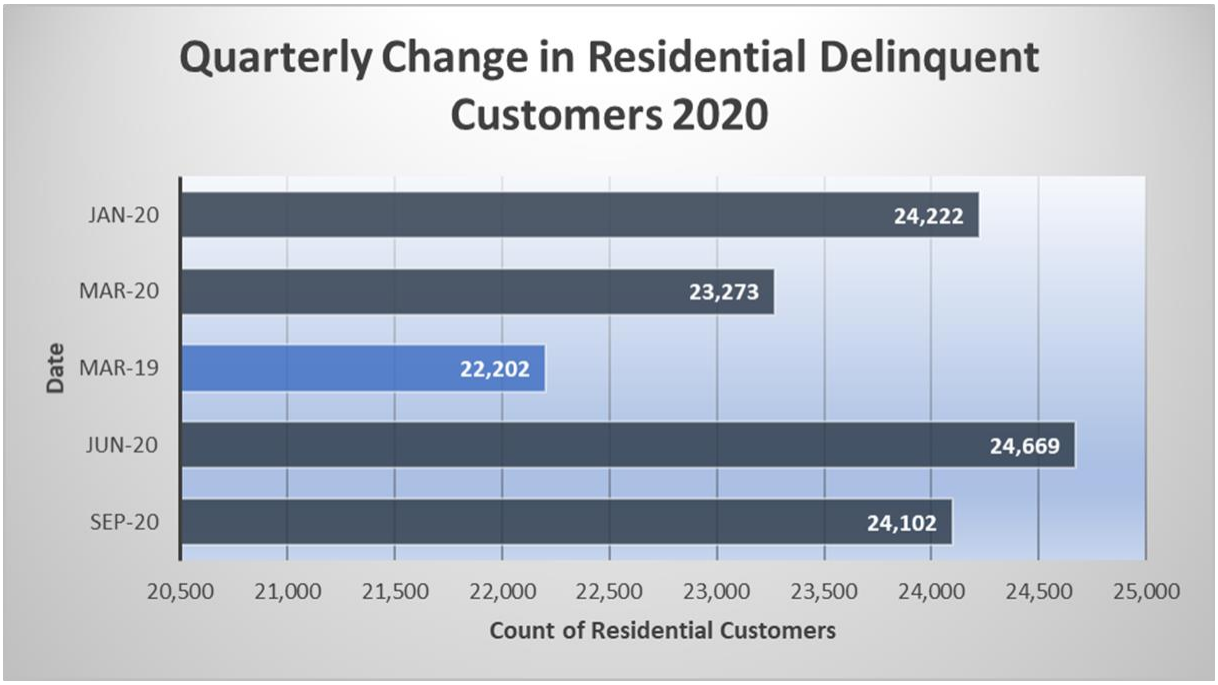
We continue to aggressively seek funding for our critical capital projects, including the power program, improvements to the water distribution infrastructure, the water treatment plants, and AMI. Our federal, state and local partners have supported us, and our collective efforts have produced the following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

- **WIFIA**: Our WIFIA loan application in the amount of $254 million has been approved. Once the loan is closed, the funds will support the remainder of our sewer consent decree projects across the city, as well as sewer and water line replacements that are part of the JIRR program.
- **Fair Share**: As of September 23, we have received close to $7 million in Fair Share dollars through the City's Infrastructure Maintenance Fund. The money will be spent on a slate of projects approved by the Infrastructure Advisory Board, including power improvements, water filter gallery upgrades, SELA drainage projects, and AMI Phase 1.
- **CDBG**: The State recently approved $13 million in CDBG funds or the purchase of T7. This effort was the result of creativity and teamwork among state and local leaders, as well as SWBNO engineers.
- **Sewer Bonds**: Working closely with the Board of Liquidation, we anticipate closing on a total package of $75 million in sewer bond placements this year. The funds will be used to complete critical sewer-related projects and will count as a match toward out WIFIA loan.
- **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 project. We currently are spending the $7 million appropriation from 2019 on the demolition and preparation of a site at the Carrollton Water Plant for construction of the substation.

Delinquency/AR

As expected, delinquent accounts increased significantly over the past months – with a correlating decline in billing revenue – due to COVID-19. The below graphs show improvement in delinquent accounts at the beginning of this year. In March, however, we suspended out 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 $3 million since June.

TOTAL PAST DUE OVER 60 DAYS-ACTIVE ACCOUNTS 9/23/2020					
Location Class	Count of Location Class	Sum of Current Balance	Sum of Past Due 61-90 Days	Sum of Past Due >90 Days	Sum of Total Past Due Over 60 Days
RESIDENTIAL	24,974	$ 41,400,893.94	$ 3,181,277.34	$ 29,571,939.33	$ 32,753,216.67
LG COMMERCIAL	148	$ 5,661,009.90	$ 342,908.01	$ 3,512,822.89	$ 3,855,730.90
SM COMMERCIAL	1,238	$ 4,910,038.68	$ 340,914.24	$ 3,427,145.13	$ 3,768,059.37
MULTI FAMILY	692	$ 3,024,790.37	$ 207,745.16	$ 2,239,671.47	$ 2,447,416.63
HYDRANT	66	$ 1,126,617.85	$ 22,420.52	$ 1,027,901.72	$ 1,050,322.24
COMMERCIAL	36	$ 373,538.69	$ 10,411.65	$ 307,378.85	$ 317,790.50
INDUSTRIAL	3	$ 6,732.54	$ 1,337.43	$ 781.18	$ 2,118.61
Grand Total	**27,157**	**$ 56,503,621.97**	**$ 4,107,014.35**	**$ 40,087,640.57**	**$ 44,194,654.92**

Meanwhile, the total sum of inactive accounts has decreased by about $4 million since June due to an annual write-off of bad debt in conjunction with the CAFR.

CURRENT BALANCE DUE-INACTIVE ACCOUNTS 9/23/2020				
Location Class	Count of Location Class	Sum of Current Balance	Sum of Past Due 61-90 Days	Sum of Past Due >90 Days
RESIDENTIAL	30,453	$ 27,723,229.49	$ 336,853.46	$ 26,588,951.54
SM COMMERCIAL	1,141	$ 2,028,815.11	$ 23,406.77	$ 1,958,780.00
LG COMMERCIAL	77	$ 1,048,521.74	$ 1,184.63	$ 1,029,170.78
MULTI FAMILY	704	$ 803,141.54	$ 13,139.17	$ 760,421.48
HYDRANT	20	$ 104,599.83	$ 7,540.47	$ 94,035.88
INDUSTRIAL	1	$ 32,641.78	$ -	$ 32,641.78
COMMERCIAL	14	$ 15,127.93	$ -	$ 15,127.93
Grand Total	**32,410**	**$ 31,756,077.42**	**$ 382,124.50**	**$ 30,479,129.39**

Expenditures and Receipts

In compliance with La. R.S. 33:4091, which requires an accounting of SWBNO's receipts and expenditures, please see two attached documents:

1. Financial Cash Flow Model – August 2020
2. Revenue Collections Update – Through August 2020

We have been tracking cash trends very closely this year to monitor COVID-19 impacts and respond appropriately. As expected, we have continued to experience a negative financial impact on water and sewer revenues since our June report. To help offset this impact, we have called upon all departments to limit spending, including hiring, to the most critical needs, and we have put a temporary approval process in place for expenditures over $10,000 as well as all hiring requests (which must now be approved by the Executive Director). We are in the midst of developing 2021 operating and capital budgets, which will reflect agency-wide efforts to reduce spending and leverage innovative funding opportunities.

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.