



DRAFT
MEETING MINUTES
CITY OF FORT LAUDERDALE
INFRASTRUCTURE TASK FORCE ADVISORY COMMITTEE
VIRTUAL MEETING

CITY OF FORT LAUDERDALE MONDAY, DECEMBER 7, 2020 – 2:00 P.M. TO 5:00 P.M.

<u>February 2020-January 2021</u>		<u>Attendance</u>	
Marilyn Mammano, Chair	P	4	0
Gerald Angeli	P	4	0
Shane Grabski	A	3	1
Charlie Ladd (arr. 2:07)	P	3	1
Michael Marshall	A	3	1
Norm Ostrau	P	4	0
Peter Partington	P	4	0
Jacquelyn Scott	P	4	0
Roosevelt Walters	P	4	0
Ralph Zeltman	P	4	0

As of this date, there are 10 appointed members to the Committee, which means 6 would constitute a quorum.

Staff

- Aneisha Daniel, Deputy Director of Public Works
- Dr. Nancy Gassman, Assistant Director of Public Works – Sustainability
- Rick Johnson, Utilities Distribution and Collection Systems Manager
- Talal Abi-Karam, Assistant Director of Public Works – Utilities
- Victor Carosi, Assistant Director of Public Works -- Engineering
- Omar Castellon, Chief Engineer
- Jill Prizlee, Chief Engineer
- Steve Hillberg, Project Manager II
- Pauline Ricketts, Senior Administrative Assistant
- Igor Vassiliev, Project Manager II
- Melissa Doyle, Solid Waste and Recycling Program Manager
- Justin Murray, Regional Wastewater Facilities Manager
- Kymerly Holcombe, Business Operations Manager
- Crysta Parkinson, Recording Secretary, ProtoType, Inc.

Communication to the City Commission

None.

1. Call to Order

i. Roll Call

Chair Mammano called the meeting to order at 2:00 p.m.

Roll was called and it was noted a quorum was present.

ii. Approval of Agenda

Motion made by Mr. Walters, seconded by Mr. Partington, to approve. [The agenda was approved by consent.]

iii. Approval of Previous Meeting Minutes – October 19, 2020

Motion made by Ms. Scott, seconded by Mr. Partington, to approve with modifications.

The following corrections to the October 19, 2020 minutes were noted:

- P.6, paragraph 1: last sentence refers to the Lohmeyer plant rather than Fiveash
- P.6, paragraph 2: change “City” to “state” and “projects” to “requirements” in the first sentence
- P.7, paragraph 5: change “insurance services” to “Insurance Services Office”

The minutes were approved by consent.

2. General Discussion and Comments by Committee Members

Ms. Ricketts advised that the Committee may continue to meet virtually or in the City Commission chambers in the future. The Committee agreed by consensus to continue meeting using information technology.

Deputy Director of Public Works Aneisha Daniel introduced Victor Carosi, the City’s new Assistant Director of Public Works (Engineering).

Mr. Walters recalled that at the previous meeting, he had requested clarification of the terms “temporary” and “short-term” as used by the Assistant City Attorney. He advised that the terms are used interchangeably at times when moratoriums are discussed, which may be an issue. He recommended that the Committee choose one of the two terms to use consistently in the future when referring to moratoriums. Chair Mammano concluded that once the Committee’s data collection is complete and a moratorium is discussed further, they may wish to have an Assistant City Attorney more clearly define the appropriate term to refer to its time frame.

3. Old Business

i. Capacity Letter Process – Database and Cumulative Impact

Project Engineer Igor Vassiliev showed a presentation on the capacity letter process, including what is done to determine whether or not there is sufficient water, fire, and sewer

capacity for new development. The process begins when a potential development goes before the City's Development Review Committee (DRC): there must be proof that enough water for fire protection, wastewater, and potable water demand can be provided for the proposed project.

The Department of Sustainable Development (DSD) performs the analysis to determine whether or not the existing water/wastewater infrastructure can accommodate the needs of the proposed development. This is done using the Equivalent Residential Connection (ERC) calculation for water demand. One ERC equals 300 average gallons per day for water demand and 175 average gallons per day for sewer demand.

Mr. Vassiliev continued that the process also gives credits for existing uses on the proposed site: for example, if a developer proposes a new hotel or condominium on a site currently occupied by a number of single-family homes, the City would give credit for the use generated by those homes and subtract it from the proposed total increase. Categories of usage include single-family, mobile homes, condominiums, hotels, schools, and other developments.

The capacity process considers the full network from the water treatment plant through transmission and distribution networks to ensure there is sufficient infrastructure capacity to handle the proposed demand. The infrastructure considered includes water mains, gravity sewer mains, wastewater pump stations, and force mains. The condition of this infrastructure is also taken into consideration.

Mr. Vassiliev stated that once a capacity letter has been issued for a project, that project becomes part of the area's committed demand: even if the project has not yet been constructed, the City has committed to meet its needs. If the water/wastewater infrastructure lacks sufficient capacity to meet demand, the City considers making improvements. He offered the example of a large project planned in an area that is served with only a small gravity sewer: the developer may be asked to replace the existing infrastructure with larger pipes. Similarly, if a pump station cannot handle increased flow, upgrades to the station are recommended.

Mr. Vassiliev provided examples of letters that recommend the installation of upgrades by developers, including replacement of several hundred feet of gravity pipe and upsizing existing water mains and sewer lines. He concluded that all capacity letters include a summary of recommendations for specific developments.

Mr. Zeltman noted that in addition to regular consumption, fire flow requirements are also taken into consideration when a water main is sized. Mr. Vassiliev confirmed that this is included in the evaluation process, pointing out that fire flow requirements are among the most stringent requirements of water mains.

Chair Mammano asked if the table used in capacity analysis, which lists the average number of gallons of water and wastewater used and produced by a type of development,

was up to date. Mr. Vassiliev replied that he would find out when the table was last updated. He noted that the figures included in the table correspond to the numbers used by Broward County and are similar to other tables used throughout the industry to calculate demand.

Chair Mammano recalled the asset management report presented at the October Committee meeting, which provided ratings of the conditions of various pieces of infrastructure. She asked how Staff's review of the condition of pipes during capacity analysis is related to this report. Ms. Daniel clarified that capacity analysis and asset management are not related: the capacity process takes development into account, while asset management uses a condition assessment test to determine the likelihood of failure and scores and evaluates infrastructure accordingly.

Chair Mammano asked what might happen if there is sufficient capacity for new development, but the infrastructure in its subject area has been determined to be likely to fail. Ms. Daniel explained that the condition of aging infrastructure is a separate issue.

Mr. Partington asserted that this is what the City Commission has tasked the Committee with examining: the extent to which the condition of the City's infrastructure must be taken into account when evaluating adequacy. The analysis conducted for new development is almost exclusively based on capacity. He pointed out that older developments may have sufficient capacity for their use, but the pipes serving that development may have deteriorated to a point where they are no longer adequate to that use.

Mr. Ladd noted that fire hydrant tests are typically done adjacent to a project to verify that they have appropriate flow and pressure. Mr. Zeltman confirmed that fire flow testing is performed periodically, and recalled that he had asked to see the most recent information on this testing from the Fire Marshal's Office. He recalled that the Reiss report, which was prepared in 2015, showed a number of areas of concern where the City's water pressure may not meet current fire flow requirements. He emphasized that corrosion plays a role in reducing the ability to meet these requirements.

Mr. Zeltman continued that the City's sanitary sewer system was installed at a slope in order to maintain a velocity between 2 and 10 ft. per second. Over the years, the clay pipe in this system began to break up under South Florida's conditions, which affected the flow of material and allowed groundwater and sand to intrude into the pipes. The City is now lining its older pipes where possible as well as replacing broken pipes. This restores the system to the flows it was originally designed to accommodate.

Chair Mammano explained that her concern was that capacity letters are only good for a certain period of time, after which a developer must apply again if they have not already begun the project. Chief Engineer Omar Castellon stated that once a capacity letter has been issued, it is good for one year. Mr. Vassiliev further clarified that the developer has 18 months to go through the full DRC process; if they miss this deadline, the entire process must re-start and the project's capacity is no longer considered to be reserved.

Projects are tracked on a spreadsheet to determine whether or not their capacity remains committed.

Mr. Ladd advised that many projects that go through DRC review are either never built or significantly delayed. If a project's capacity letter has expired and the developer wishes to build the project, they must go through the capacity process once again in order to receive a permit for sewer and water use. When the developer applies for a building permit, the City requires evidence of DRC approval; if that approval is more than one year old, the developer is asked to provide an updated capacity letter. It is also possible that expired capacity may be reassigned to a different project and there is no remaining capacity for the delayed project.

Mr. Walters asked if re-lining a pipe significantly reduces its capacity, and if this is taken into consideration when a capacity letter is issued. Mr. Castellon replied that a pipe will not be re-lined if this would decrease its capacity: it would more likely be replaced with a larger pipe. Mr. Vassiliev further clarified that the lining is very thin material and improves the condition of the pipe wall by providing a smoother surface for flow. For this reason, the capacity may be more likely to increase rather than decrease.

Mr. Carosi advised that while pipe diameter does not change significantly when lined, the friction component of flow through the pipe is affected. The smoother lining restores the pipe's hydraulic capacity to its original state by reducing this friction.

Mr. Ladd asked if water supply pipes are typically relined or replaced. Mr. Zeltman replied that water mains are relined rather than replaced. Most relining is done in non-pressurized gravity pipes. In addition, replacing a small water main with a larger main can as much as quadruple the main's volume and capacity by doubling its size.

Mr. Partington asked if it is possible to standardize the presentation of capacity letters, as he has seen variations in the numbers listed over the years. Chair Mammano requested that the Committee see a copy of the spreadsheet used to track current developments and the capacity committed to them. Mr. Vassiliev cautioned that this information will serve only as a snapshot, as it will change over time as more projects come online.

Ms. Scott stated that she felt it would be helpful to see letters referring to both capacity and condition within the same document. Ms. Daniel reiterated that while capacity letters do not refer to the condition of the infrastructure, it is taken into consideration when capacity is determined. Mr. Castellon added that Staff plans to eventually incorporate the work done on the consent order into review of a specific area for future development.

Chair Mammano asserted that when condition is included in the analysis required for capacity letters, the moratorium issue arises. Ms. Scott added that instead of a moratorium, the result could be a system in which a developer could provide some of the funds necessary to improve the condition of the infrastructure.

Mr. Partington pointed out that there are currently impact fees associated with the addition of development. Ms. Daniel clarified, however, that the condition of infrastructure is not part of the calculation used to determine impact fees.

Mr. Ladd noted that the main trunk sewer line from Commercial Boulevard to the George T. Lohmeyer Wastewater Treatment Plant is under construction in multiple areas, and asked for a time frame in which this system, including major mains, will become fully operational once more. Patricia Carney, representing consultants Hazen and Sawyer, replied that this redundant line is estimated to become operational no later than summer 2021. She characterized this project as fast-moving. Ms. Daniel added that the redundant line is approximately 65% complete at present.

Ms. Daniel addressed the addition of a condition assessment element to the capacity determination process, stating that this was likely to require an Ordinance change. She pointed out that there is now data on the condition of the system which was not available prior to the assessment, which helps to more accurately determine the likelihood of failure. Ms. Scott noted that this is very important to the City's Planning and Zoning Board as well as the Committee.

Mr. Ladd asked which connecting components of this system are next in line to be addressed after this main line, and the timing for their completion. Ms. Carney replied that these include the following locations:

- NW 13 Street: design complete, construction expected to begin in approximately one month
- Two large connector projects that lead to the Coral Ridge pump station: these are in the planning stage and slated to be complete no later than 2025

Ms. Carney concluded that these are bond projects, as they are part of the original Consent Order. Mr. Castellon confirmed that these are planned projects for which funds are available, including some funds from the original bond. Ms. Daniel advised that Staff would look into this further and provide more information at the next meeting.

Mr. Ladd asked if it would be accurate to state there is more risk in the Coral Ridge area until the new main is installed. Ms. Carney replied that both likelihood and consequence of failure are considered when prioritizing which pipes must be addressed first. The trunk line to which Mr. Ladd had previously referred would have high consequence of failure, as lift stations and other lines would not be able to pump into it. She noted that once work on the trunk main is complete, all development centered along its corridor would be helped.

Ms. Scott requested that at the next meeting, she would like to hear more information on impact fees, including how amounts are determined and whether or not these fees might be used to improve infrastructure. Chair Mammano reiterated that she would also like to see the spreadsheet used to track capacity letters and development, including the most recently added projects.

4. New Business

i. Comparison Analysis CMOM vs. Reiss Report (Hazen & Sawyer)

Ms. Carney of consultant Hazen and Sawyer showed a PowerPoint presentation comparing the findings of the Force Main Condition Assessment (FMCA) report, with those of the Comprehensive Utilities Strategic Master Plan (CUSMP) report, also commonly referred to as the Reiss report.

The Reiss report began in 2015 and was completed in 2017. Upon its completion, the City negotiated its Consent Order, which required that a force main condition assessment of the entire City be conducted. This assessment was completed in 2020.

The Reiss report considered only those force mains that send water from pump stations to the George T. Lohmeyer treatment facility. It was also limited to lines that were 24 in. in diameter or larger within a limited radius around the treatment plant. This came to approximately 30 miles of force mains. The FMCA report, which was a requirement of the Consent Order, looked at all lines throughout the City, which came to nearly 110 miles.

The two reports mostly agreed with one another in their assessment of which lines were the most important to address within these limited networks. Ms. Carney reiterated that risk is determined by the combined likelihood and consequence of failure. She noted that 85% of the lines in the CUSMP report were determined to carry medium risk, with approximately three miles determined to be high risk and one mile at low risk. The FMCA report identified a very low amount of low-risk infrastructure, with the majority again determined to be medium and roughly 13 miles determined to be high risk.

The two reports addressed different scopes of work, which account for many of the differences in their findings. The CUSMP report was limited to 30 miles within a specific area, while the FMCA report reviewed the entire system. The data used in the Reiss report relied on the City's geographic information system (GIS) mapping and Staff interviews as well as some site visits, using an uncalibrated hydraulic model. The FMCA report used updated City GIS data from three years later, as well as mapping that incorporated this data, along with additional Staff interviews and limited site visits. Hazen and Sawyer also calibrated the hydraulic model to provide more accurate data, and conducted additional field work, including soil measurements to determine the potential for corrosion.

Ms. Carney continued that the likelihood and consequence of failure were multiplied for a mathematical approach to the risk score. The scores provided in the Reiss report were limited, considering factors including material, age, and 2035 maximum hourly flow. The FMCA report used a larger scale that considered age, operating pressure, break history, pipe profile, internal and external sources, and maintenance records.

While the Reiss report looked only at diameter and redundancy when determining consequence of failure, the FMCA report expanded this to consider diameter, reliability, proximity to wellfields, environmental compliance, and impact to residential and essential services. Finally, the consulting team engaged in peer review with Staff, discussing the scoring assigned to risk factors in the likelihood and consequence of failure to determine consensus on the most important aspects.

Mr. Partington recalled that the CUSMP report determined a price of \$1.2 billion to address infrastructure on which the bond structure was based. He asked how more infrastructure at high or medium risk would affect this original bottom line. Ms. Carney replied that she would need to review data in the CUSMP report to determine what portion of the \$1.2 billion was slated for force main rehabilitation. Mr. Partington stated that in 2017, the City Manager's memo had specified \$526 million for the City's water system and \$580 million for the wastewater system.

Mr. Zeltman requested additional information on risk factors for the Prospect Wellfield, noting that there has been discussion of locating a new water treatment plant at this location. Ms. Carney stated that there are few force mains near the wellfield.

Chair Mammano requested that Hazen and Sawyer provide the Committee with the matrix used to assess potential impacts so they could more clearly understand the assessment.

Mr. Walters asked for more information regarding ownership of infrastructure. Ms. Carney replied that in addition to City-owned mains, the City's system also includes mains owned by Broward County and the city of Wilton Manors. Fort Lauderdale is not required to address the needs of this infrastructure, and there is no interconnection between City- and County-owned mains. The team did not assess infrastructure belonging to other entities.

Mr. Ladd asked if increasing the flow in force mains resulted in additional risk. Ms. Carney stated that it is best to maintain a set maximum velocity through the pipe. If more flow is added, the pressure within pipes is increased, and pump stations may not be able to pump adequately at a higher pressure. If they pump at a slower rate than necessary, the gravity system can become backed up. The addition of flow may have little impact on some pipes and stations and significant impact on others.

Ms. Carney emphasized that in addition to the age and condition of pipes, pump stations are also part of the issues affecting the overall system. While analysis of pump stations was not included in the requirements of the Consent Order, the team has been working on this as part of the Asset Management/Capacity Management, Operations, and Maintenance (AM-CMOM) report.

Chair Mammano recalled that the Reiss report had identified a number of pump stations at which the flow was determined to be too high. She asked when the Committee can

expect to see information on the condition and replacement or upgrade of pump stations. Ms. Carney replied that the pump stations include rotating equipment, which means they have a shorter life expectancy than pipes or basins. A City program exists for the replacement of pump stations as needed.

Another factor is the priority pump stations listed in the Reiss report, which were part of the Consent Order and which are now complete ahead of schedule. A third element is the capacity of pump stations, which was analyzed as part of a capacity model. Not every pump station would need to be replaced for capacity, although some stations have issues related to their conditions. Ms. Daniel advised that the CIP includes roughly \$20 million in funding for the repair and rehabilitation of 29 of the City's 186 pump stations.

Mr. Partington suggested that Staff consider whether future developments may increase flow through high-risk force mains with a significant likelihood of failure when analyzing adequacy and/or capacity for each development. He recommended that this analysis include a report on the likelihood of failure of these high-risk mains.

ii. Owner's Representative Role (Project Manager)

Steve Hillberg, Project Manager with the Public Works Department, showed a presentation on the role of the owner's representative with regard to replacement of the Fiveash Wastewater Treatment Plant. The City has completed addressing and consolidating comments from different Departments on the solicitation package and is now taking final comments from the City Manager's Office. He estimated that the bid package is likely to be advertised in January 2021. Staff will seat a panel to select the most qualified consultant. The number of applicants will affect the length of the selection process.

Chair Mammano explained that the Committee wished to know what the role of an owner's representative will be. Ms. Daniel advised that this will include a number of aspects the Committee has discussed, including design management and delivery, engineering, and technical assistance. Because the size and scope of this project are very large, the City is taking time to ensure they have heard all necessary input on the RFP.

Mr. Hillberg continued that the owner's representative will be considered an extension of City Staff. Because Staff does not have the expertise to design a water treatment plant in-house, they are seeking a representative from a party that is familiar with the many different ways the project can be delivered. The owner's representative will also review the conclusions made in the Carollo report to ensure that these are what the City wants and needs. They will serve as an advocate for the City.

Mr. Hillberg noted that the owner's representative will help the City vet the design proposals brought forward, although the City will control all final decisions. Ms. Daniel

characterized the role of owner's representative as a party that will help to protect the City's interests by overseeing the project.

Mr. Zeltman asked if a final decision has been made regarding whether to build a new treatment plant on the existing Fiveash property or at another location such as the Prospect Wellfield. Mr. Castellon replied that at present, the wellfield seems to be the best option. The Fiveash facility would continue to be used for storage and distribution.

Mr. Partington requested more information on how the City Commission reached a decision on where to build the new plant. Mr. Castellon advised that construction of a new plant on the Fiveash site would have required demolition of the existing plant, which cannot be done until another facility is online to perform its work.

Chair Mammano asked for additional information on the role of the owner's representative in confirming the findings of the Carollo report, including the technology that report had proposed in addition to the prospective location of a new plant. Mr. Hillberg replied that the full scope of the owner's representative has not yet been determined in this much detail; however, he expected that the owner's representative would review and consider the conclusions reached by the Carollo report.

Mr. Walters asked if the owner's representative would assume or share any liability in the event that mistakes are made in the planning and implementation processes. Mr. Hillberg assured the Committee that the owner's representative is required to have errors of omission insurance to cover any mistakes and/or resulting damages.

Mr. Zeltman recalled that a pilot study on new technology that could be used in a new water treatment plant was discussed in the Carollo report, but was never completed. He felt that an investment of the size necessary to construct a new water treatment plant should conduct an extensive pilot study of new technology before the City makes an investment. Mr. Hillberg recalled that Carollo had reviewed projections related to new technology and determined that it would be too expensive to implement. Mr. Castellon stated that a new oxidation pre-treatment is recommended for consideration instead of the pilot study referred to by Carollo.

5. Public Works Update

i. Water & Sewer Breaks Report 2020

Ms. Daniel advised that after Staff submitted this report, an error was identified in one of its spreadsheets. Revised water and wastewater spreadsheets will be submitted in the future.

Utilities Distribution and Collection Systems Manager Rick Johnson reported that eight water main breaks occurred in October and 11 in November. There has been one break

thus far in December. Contributing causes included age, corrosion, contractor error, and others.

Chair Mammano stated that she had hoped the Committee would see a more comprehensive breakdown reflecting gallons lost, the cost of repairs, and where breaks occurred throughout the City. Mr. Johnson further clarified that these breaks were in mains with a diameter of 4 in. or higher, and occurred randomly throughout the City rather than being concentrated in a particular area. The exception was a number of breaks located near the SE 17 Street ramp, which happened when a contractor exposed an unsupported pipe.

Chair Mammano commented that while the Committee has seen detailed information on the City's sewer system, less detail is available in relation to the water system. Ms. Daniel confirmed that this is the case, noting that Public Works Director Raj Verma hopes to focus more CIP dollars on the water system in the future.

Ms. Daniel suggested that in the future, Staff will also report whether or not a precautionary boil water notice was necessary as a result of breaks. Chair Mammano agreed that this would be particularly helpful to the general public. Mr. Angeli requested clarification of whether breaks occurred in parts of the City where a high risk of failure was determined to exist. Ms. Daniel cautioned that condition assessment information has not been collected as comprehensively for the water system as for the sewer system.

Mr. Johnson explained that the City is still in the process of mapping its assets within the water system: while they know where most infrastructure lies, they do not yet have a comprehensive map. A consultant will be brought in to map these assets and capture additional data that is not reflected in current GIS.

Ms. Daniel also provided information on sewer breaks, noting that no breaks occurred from April to July 2020; however, three breaks occurred in August, two in September, and one each in October and November. These are breaks in mains 6 in. or more in diameter. The report does not reflect information regarding sanitary sewer overflows (SSOs).

Talal Abi-Karam, Assistant Director of Public Works (Utilities) advised that Staff has compiled specific data related to the storms that occurred in October and November 2020. There were 16 incidents reported to the Florida Department of Environmental Protection (DEP), including SSOs. Most of these incidents were "bubbling manholes," which occur when the sewer system is full and there is nowhere for surface and/or king tide water to go.

Mr. Partington observed that while most of the incidents to which Mr. Abi-Karam had referred were due to rainfall, force main breaks continue to occur, which are significant because they involve sewage under pressure.

Chair Mammano noted that the public may sign up to receive notification of pollution incidents in Broward County, including the number of gallons spilled and whether specific waterways were affected. Mr. Abi-Karam confirmed that this data is tracked on a spreadsheet which can be provided to the Committee. He estimated that the City's conveyance and pressure systems, as well as the Lohmeyer plant, performed reasonably well during the last storm with no major breaks.

Mr. Partington requested more information on how the Lohmeyer plant operates in the event of a storm. He asked if any raw sewage backed up near this plant, or if treated gray water was released into the Intracoastal Waterway due to insufficiency of the plant's injection wells. Mr. Abi-Karam explained that the amount of flow coming into the Lohmeyer plant increased from an average of 45 to 47 million gallons per day (MGD) to over 92 MGD. The plant continued to treat water, but the water could not be injected into the wells, as it exceeded their capacity. As a result, water that was too much for well capacity was discharged into the Intracoastal Waterway. He emphasized that this water was treated and chlorinated prior to discharge.

Mr. Abi-Karam continued that there was no surface discharge at the Lohmeyer plant or at influent pump stations. The capacity of each individual injection well is capped at approximately 18.6 MGD. The water discharged into the Intracoastal Waterway was reported to DEP as an abnormal event. He concluded that in October and November 2020, Broward County received 30% to 40% of its expected rainfall for the entire year. These conditions occurred in several municipalities throughout the County.

Chair Mammano noted that the capacity letters issued for developments also take the capacity of the City's water treatment plants into consideration. She asked if the plant's capacity to inject water into wells is capped. Mr. Abi-Karam replied that the plant's capacity is determined on multiple levels, including the capacity of volume allowed in tankage, capacity for treatment of water, and capacity for water that can be injected into wells.

When a municipality's water treatment plants approach the "red zone," letters will be issued to those facilities urging them to plan for capacity expansion. Chair Mammano observed that the City's capacity letters assume an average plant capacity of 48 MGD and a three-month average of 56.6 MGD, even though it may be possible for the plant to accommodate greater capacity. A plant's capacity cannot change, however, without the addition of structures to accommodate greater volume.

ii. Rainfall Flooding & System Impact Report

Dr. Nancy Gassman, Assistant Director of Public Works (Sustainability), showed a PowerPoint presentation on the unprecedented flooding experienced by the City over the last 40 days. She advised that it has always been known that significant rainfall accompanying a tropical storm event would result in flooding. Most of the City's

stormwater system is a gravity-based system. The tropical storms resulted in substantial groundwater table elevation and saturation.

Dr. Gassman confirmed that significant rainfall events are becoming more frequent as a result of climate change. Fall 2020 included both significant tidal events associated with both mild storms and storm surge, and more extreme rainfall is increasing in frequency as well. This has created challenges for Fort Lauderdale's existing stormwater infrastructure, as well as other infrastructure affected by the elevated groundwater table.

Between October 1 and the second week of November 2020, the City recorded 32 in. of rainfall at the Lohmeyer facility, which represents 60% of the annual rainfall received in 40 days. The City also received nearly 30% of its annual rainfall in May 2020. At the beginning of October, the groundwater level was approximately 4 ft. below the surface; following rain events from October 19-22, another 8.2 in. of rainfall was received, which raised the groundwater table to allow only 2 ft. of clearance.

When another 6.3 in. of rain occurred on October 25, this raised the groundwater table to near its saturation point. This was followed by Tropical Storm Eta, which deposited 9 to 10.5 in. of rain on the City, completely saturating the groundwater table and resulting in overland flow of stormwater.

Another issue was king tides, which occurred within the same time frame as October rainfall events. The king tide was substantially over the threshold that would inundate low-lying streets with tidal flow, due in part to the storm surge that accompanied Tropical Storm Eta. This surge further aggravated some of the challenges associated with flooding in the eastern part of the City.

Dr. Gassman explained that the City's stormwater system capacity was designed to accommodate 3 in. of rainfall in a 24-hour period, which was substantially exceeded multiple times in October and November 2020. She emphasized that when ponding does not clear from a roadway within hours of an event, this does not mean there is an issue with the stormwater management system: however, if ponding persists for more than three days after a storm, the City should consider changes to its stormwater system, including the potential for capital improvements. Most neighborhoods did not exceed this criterion even after the October 25 rain event or after Tropical Storm Eta. The expectations of residents are not always aligned with the design of the system.

Most calls to the City's customer service center after these events came from the Melrose Park/Melrose Manors neighborhoods; however, a significant number of calls were placed even in Commission Districts 2 and 4. There were 329 calls from the Melrose Park area in District 3 and over 100 calls from Melrose Manors. The most severely affected neighborhoods experienced flooding of roadways as well as some flooding within homes. Dr. Gassman noted that most of these homes did not meet the general flooding criteria, as the water receded within a 24-hour period. The neighborhoods that experienced flooding are scheduled to receive improvements either as part of the current Stormwater

Master Plan or are expected to see comprehensive improvements in the next phase of that Plan.

Mr. Partington commented that he felt a number of stormwater projects have been designed and funded as a result of the work done by the Committee. He continued that the City should give greater consideration to its existing drainage design standards, as major rain events are expected to continue with increasing frequency and the basis on which these standards were developed has shifted.

Dr. Gassman advised that when the most recent Stormwater Master Plan was completed in 2018, it included a projection of change in rainfall as well as in sea level rise predictions as part of the modeling activity. The intent was to meet a 10-year flood level of service (LOS) for affected neighborhoods which would be consistent with future conditions of more rainfall and higher sea level.

Chair Mammano asked if there has been any consideration of changing design criteria to meet residents' expectations. She cited the clearance of water from the roadways in 72 hours as an example, recalling that Dr. Gassman had noted residents expect faster clearance. Dr. Gassman replied that the design criteria address a certain amount of flooding over the crown of a road to a specific depth of water, while flooding criteria are an internal standard used to determine whether a major change must be made to existing infrastructure. If a neighborhood experiences a storm within the parameters of the system's design, there should be substantial reduction of the intensity, duration, and frequency of flooding in those locations; however, if a neighborhood experiences a storm beyond those design standards, the system is not capable of managing these levels of rainfall and expectations of clearance may not be realistic.

Motion made by Mr. Partington, seconded by Mr. Walters, to extend [the meeting]. In a voice vote, the **motion** passed unanimously.

Paul Chettle, member of the public, stated that he fully endorsed "the progression of the water and sewer capacity letter," noting that a number of projects approved by the Planning and Zoning Board and the City Commission seem to directly contradict the findings of consultant Hazen and Sawyer regarding water and sewer capacity.

Mr. Chettle also addressed stormwater, pointing out that while Tropical Storm Eta was considered an anomaly, these events are becoming more regular in recent years, and the system has discharged treated water into City waterways. He expressed concern with the discharge of this water, and noted that a high level of bacteria was found in the water at three separate testing sites in the month of November. He asked if these readings were higher or lower than anticipated.

Mr. Chettle also asked how many gallons of water taken into the Lohmeyer plant and injected into wells are categorized as "fully treated effluent." He recalled that when several million gallons of treated water were discharged into the Intracoastal Waterway following

a rain event in 2018, the City issued a precautionary advisory, but did not believe an advisory was issued after recent rain events. He concluded that he would like the term “gray water” explained in layman’s terms.

Mr. Abi-Karam advised that “gray water” is defined as treated water, which is typically placed in a deep injection well after it has been treated at a facility. He reiterated that following the rain events described earlier, the capacity of the wellfield was exceeded, resulting in the discharge of treated water into the Intracoastal Waterway. This was reported to DEP according to their guidelines.

Mr. Abi-Karam continued that similar events occurred following Hurricane Irma, as well as when power was lost at the Lohmeyer treatment plant. In these cases, treated water was also discharged into the waterway and reported to DEP as necessary. Testing was done following this discharge and the results were reported to DEP.

Dr. Gassman advised that any sample taken from City waterways after Tropical Storm Eta was likely to show a higher level of bacteria. When fully treated water is discharged into the Intracoastal Waterway, it has gone through a treatment process with the intent of being discharged into an injection well. While it is not considered potable water, it has been treated for bacterial components of wastewater and approved for discharge into injection wells.

After major storm events, sampling is done to determine whether or not there is an excessive amount of bacteria discharged into water. If the treatment process is effective, high levels of bacteria from this discharge are not expected. Dr. Gassman clarified that while releasing treated water into the waterway is not a regular practice, it is used to deal with emergency situations. The test results to which Mr. Chettle had referred were not considered unusual shortly after a 9 in. rain event.

Ms. Scott asked if there is a need for precautionary signage regarding public use of waterways due to the release of treated water. Dr. Gassman reiterated that treated water is not considered in the same way as a sanitary sewer overflow. She did not recall that any signage was posted after the recent release of treated water. Ms. Scott characterized this as a mistake.

Chair Mammano pointed out that the Intracoastal Waterway remains relatively polluted, and asked how the samplings after effluent discharge compared to baseline findings. Dr. Gassman replied that bacterial concentrations in the range of hundreds are normal within an urban waterway after any type of rainfall event. After an SSO, when untreated wastewater may run into waterways, it is not uncommon to see these concentrations in the thousands or tens of thousands. The levels taken after recent rain events showed concentrations in the hundreds, which may not have differed from a baseline sample after a significant rainfall event.

Dr. Gassman emphasized that these levels of bacteria are not uncommon within any waterway within Broward County where stormwater discharges occur. When the results of bacteria sampling are published, it is typical to see levels in the hundreds on a regular basis.

Ms. Scott again stated that precautionary signage should be used whenever gray water is released into the canal, advising the public not to swim or otherwise use the waterway for a period of time. Chair Mammano proposed that the Committee should place discussion of water quality on a future agenda.

6. Information

i. Water & Sewer Bond Expenditure Report

This Item was not addressed.

ii. Fire Hydrant Maintenance and Testing

This Item was not addressed.

7. Public Comments

None.

8. Adjournment – Next Regular Meeting TBA

There being no further business to come before the Committee at this time, the meeting was adjourned at 5:17 p.m.

Any written public comments made 48 hours prior to the meeting regarding items discussed during the proceedings have been attached hereto.

[Minutes prepared by K. McGuire, ProtoType, Inc.]

DSD Development and DRC Case Data												PWD Capacity Analysis Data		Committed Flow (MGD)	
DRC Case	PWD Capacity Letter Ref. #	DRC Date	Project Name	Address	Description	Water Sewer Capacity Letter Issued Date	Final DRC Approval	Construction Application Submittal Date	Master Permit Issued Date	Certificate of Occupancy Issued Date	Allocated MGD	Pump Station Basin	Notes	Water Demand (1 ERC = 300 GPD Max Day / 230.77 GPD Average Day)	Sewer Demand (1 ERC = 175 GPD Average Day)
31R12		3/27/2012	ONE20 FOURTH STREET	120 NE 4TH STREET	368 MULTI-FAMILY UNITS W/ 2100SF RETAIL	3/24/2015	9/17/2012	12/29/2015	10/27/2016	7/24/2019	0.13530	A-7 (.078050) & A-21 (0.057250)	BP 15122481		
67R12		8/28/2012	THE WATERWAY SENIOR HOUSING	3001 NE 30TH AVENUE	103 ROOMS ASSISTED FACILITY	12/5/2012	N/A	6/19/2014	05/15/2016	2/22/2017	0.02310	B-1			
72R12		11/13/2012	BOKAMPERS SPORT BAR	3115 NE 32ND AVE	18,176 SQFT RESTAURANT WITH PARKING REDUCTION	6/7/2013	12/11/2012	6/7/2013	8/21/2013	11/22/2013	0.01318	B-2			
75R12		10/24/2012	CAMM Educational Enterprises	120 NW 7TH AVENUE	CHILD DAYCARE CENTER	1/15/2013	1/15/2013	4/26/2013	8/20/2013	7/25/2014	0.00213	A-36			
36R12		5/8/2012	CYS & BANK OF AMERICA	4901 N FEDERAL HWY	DRUGSTORE AND BANK 1 STORY	7/24/2014	11/14/2012	3/12/2013	7/10/2013	1/10/2014	0.00309	B-11			
80R00		1/11/2006	RL Conrad FTL Beach Resort/TRUMP HOTEL	551 N FTL BEACH BLVD	298 UNIT HOTEL W/ 317 SS FT COMMERCIAL USE		1/11/2006	1/30/2006	5/28/2009	11/2/2009					
12P13		6/13/2013	THE ENCLAVE	3850 N FEDERAL HWY/2315 CORAL RIDGE VIEW DR	36 LOTS FOR SINGLE FAMILY HOMES	8/7/2013	3/27/2014	EXPIRED		N/A	0.01260			36 INDIVIDUAL SFH TO BE BUILT	
21R13		1/22/2013	ISLE OF VENICE	161 ISLE OF VENICE	10 MULTI FAMILY UNIT	12/5/2012	4/23/2013	1/28/2014	6/3/2014	5/10/2016	0.00300	D-10			
23R13		1/2/2013	8TH AVENUE RESIDENCES	215 SE 8TH AVENUE	262 RESIDENTIAL UNITS	5/17/2013	8/17/2013	4/15/2014	7/22/2014	2/16/2017	0.09170	A-8			
37R13		2/26/2013	RETAIL PLAZA PROPERTIES	2949 N FEDERAL HWY	9,315 SOFT RESTAURANT SPACE 1000 OUTDOOR SEATING	6/3/2013	9/17/2013	11/5/2013	3/25/2014	8/3/2016	0.00300				
44R13		3/26/2013	RESIDENCE 909	909 NE 16TH TER	6 MULTI-FAMILY UNITS	6/25/2013	7/23/2013	4/22/2016	3/24/2017		0.00210	A-19		BP 16042015	0.0021
53R13		5/14/2013	SEMINOLE RIVER LANDINGS/ART INSTITUTE	1799 SE 17TH STREET	394 MULTI-FAMILY FLEX UNITS	9/16/2013	12/6/2013	9/16/2013	2/27/2014	1/21/2015	0.08511	D-44			
55R13		5/24/2013	AQUAVITA LAS OLAS	5670 HENDRICKS ISLE	22 MULTI-FAMILY UNITS	7/25/2013	10/4/2013	2/6/2014	5/12/2014	9/21/2018	0.00770	D-11			
62R13		9/24/2013	AUDI SERVICE CENTER	1400 PROGRESSO DR	AUDI SERVICE CENTER	3/26/2015	EXPIRED				0.00120			Case closed to inactivity on 1/18/17	
76R13		10/24/2013	VICTORIA PARK AT 12	612 NE 12TH AVE	16 TOWNHOUSE UNITS	3/6/2014	8/28/2014	9/28/2014	9/28/2014		0.00560	A-17		BP 17120438	0.0056
A14029		11/18/2014	OCEAN WAVE HOTEL	521 N FTL BEACH BLVD	AMENDING FROM 328 HOTEL TO A 100 MULTIFAMILY RES I	11/12/2014	EXPIRED			N/A	0.04015			Closed	
ID14001		10/14/2014	GALLERIA MALL	2300 E SUNRISE BLVD	1640 DWELLING UNITS, 165 HOTEL ROOMS AND 74,500 SQ	11/15/2016	EXPIRED			N/A	0.32795			Closed	
R14001		1/14/2014	LOFT ON 8TH STREET	501 SE 8 ST	75 MULTI-FAMILY UNITS W/ COMMERCIAL USE	3/10/2014	EXPIRED			N/A	0.01945			Closed	
R14013		3/3/2014	BUILDING ON HENDRICKS ISLE	309 HENDRICKS ISLE	5 UNIT MULTI-FAMILY	3/5/2014	9/8/2014	12/17/2014	5/28/2015		0.00125	D-11		BP 14121497	0.00125
R14015		3/14/2014	NEW RIVER YACHT CLUB - PHASE II	401 SW 1 AVE	349 MULTI-FAMILY UNITS		12/12/2014	6/4/2015							
R14004		1/22/2014	1055 FEDERAL	1055 FEDERAL HWY	205 MULTI-FAMILY UNIT MIXED USE	3/10/2014	EXPIRED			N/A	0.00618			Closed	
R14007		2/23/2014	FXE BANYAN HANGER	1755 NW 51ST PLACE	EXECUTIVE AIRPORT	3/28/2014	EXPIRED			N/A	0.00048			Void	
R14008		2/4/2014	WY AVIATOR	5901 NW 24TH WAY	EXECUTIVE AIRPORT - AIRCRAFT HANGAR	4/14/2014	5/19/2014	2/16/2017	4/21/2017	3/5/2020	0.00048	E-2		BP 16021335	
R4011		2/17/2014	HAPPY LAND	105 N FEDERAL HWY	Office with restaurant	8/20/2019	10/3/2014	6/15/2015	6/15/2015		0.00814	A-7		Project underwent admin review for updated building	0.008135
R14014		3/5/2014	RIVERSIDE LANDINGS IDP	623 SW 12 AVENUE	8 UNIT CLUSTER DEVELOPMENT	6/4/2014	2/9/2015	12/18/2015	7/25/2016	7/24/2018	0.00280	C-21			
R14016		3/14/2014	1815 PLAZA	1815 E COMMERCIAL BLVD	9243 SF 1 STORY COMMERCIAL CENTER	7/17/2014	8/14/2014	12/23/2014	4/6/2015	4/14/2016	0.00184	B-9			
H14017		10/28/2014	Tiffany House / Escape Hotel	2900 RIOMAR STREET	124 MF Units / 96 Hotel Rooms	11/12/2014	12/1/2014	3/7/2018	8/2/2018		0.02785	D-31 & D-41		BP 18030701	0.02785
R14019		4/3/2014	MANOR TOWNHOMES	1716 N DIXIE HWY	12 UNITS - 2 STORY TOWNHOMES	6/25/2014	7/25/2014	2/5/2015	1/20/2016	4/14/2017	0.00360	A-27			
R14024		5/2/2014	500 FEDERAL NORTH	500 N FEDERAL HWY	3 STORY RETAIL / COMMERCIAL BUILDING	6/24/2014	5/1/2015	4/2/2015	7/6/2015	6/18/2015	0.00392	A-17			
R14025		5/2/2014	400 FEDERAL SOUTH	400 N FEDERAL HWY	1 STORY BUILDING WITH RETAIL AND COMMERCIAL	6/24/2014	7/2/2015	9/28/2012	2/13/2013	10/11/2013	0.00981	A-17			
R15050		5/19/2014	ZUNA TOWNHOMES	815 NE 17TH AVENUE	10 UNIT TOWNHOUSES	4/19/2015	9/11/2015	5/11/2016	0.00290	A-19				Multiple permits for each townhouse, search by address	0.0029
R14031		6/24/2014	HAMPTON INN / MARINA	1335 SE 16TH STREET	178 HOTEL ROOMS AND 24 BOAT SLIPS	4/25/2014	2/24/2015	EXPIRED		N/A	0.02370	D-44		No Permit Issued	
R14032		5/30/2014	AQUAMAR	21 ISLE OF VENICE	20 UNIT - RESIDENTIAL	8/25/2014	1/9/2015	6/24/2015	4/8/2016	3/16/2018	0.00173	D-10			
R14033		7/8/2014	AQUABLU	920 INTRACOASTAL DR	Mnew 45 Multi-Family Units RMM60 80 intercoastal	8/25/2014	10/21/2014	6/29/2015	7/28/2016		0.01080	B-4		BP 15063381	0.0108
R14035		7/22/2014	TRIUM	900 NE 4TH STREET	11 UNIT MULTI-FAMILY	10/24/2016	4/20/2015	5/5/2016	8/2/2017		0.00385	A-17 & A-7		East of US 1, flow diverted to A-13 (BP 16050423 and BP 1712540)	0.00385
R14039		9/9/2014	SIMON PLAZA	1007 NW 8TH AVENUE	PROPOSED RETAIL BUILDING	6/4/2015	8/6/2015	8/25/2015	2/10/2016	8/19/2016	0.00054	A-28		Master Permit is under address 801 W Sunrise	
R14041		8/29/2014	THE BAYSHORE CLUB	612 BAYSHORE DR	18 RESIDENTIAL UNITS AND CONDO BLDG	6/8/2015	11/30/2017	7/19/2018	11/20/2018		0.00125	D-40		BP 17112540	0.00125
R14043		9/8/2014	ALL ABOARD FLORIDA	101 NW 2ND AVENUE	PASSENGER RAIL STATION LOBBY	11/7/2014	6/26/2015	1/6/2015	5/2/2017		0.01745	A-7			
R14044		10/30/2014	Florida Community Bank	632 S FEDERAL HWY	3500 sq ft Bank	1/8/2015	5/13/2015	9/12/2015	7/8/2016		0.00368	A-15			
R14045		11/12/2014	Wisdom Village Crossing 105 MF Units	615 N ANDREWS AVE	15 MF UNITS	12/18/2014	5/14/2015	6/29/2015	9/24/2015	3/27/2017	0.01303	A-21			
R14046		11/25/2014	HOLIDAY INN EXPRESS	1500 SE 17TH STREET	HOTEL EXPANSION	1/29/2015	5/20/2016	6/26/2015	11/10/2016		0.02220	D-44		BP 15063607 - TCO issued	0.0222
R14048		11/12/2014	GALLERIA WEST / GALLERIA LOFTS	1025 NE 18TH AVENUE	300 MULTI-FAMILY UNIT	1/14/2015	5/14/2015	10/20/2015	6/16/2017		0.01365			Can't find letter	
R14049		11/13/2014	Bayshore 740 - 8 MF Units	740 BAYSHORE DR	8 MF Units	12/5/2014	3/17/2015	EXPIRED		N/A	0.00075	D-40			
R14051		11/25/2014	BC ADDICTION RECOVER CENTER	325 SW 28TH STREET	ONE 2 STORY BLDG FOR BARC WITH 50 DETOX BEDS	10/22/2015	12/10/2015	1/6/2016	9/8/2016	5/1/2018	0.00575	A-80			
R14052		11/25/2014	MACKAMEN BEACH HOUSE	2512 NE 32ND AVENUE	BEACH HOUSE - 4 UNITS	3/17/2015	4/14/2015	11/23/2015	7/20/2017		0.00120	D-40			
48R06		11/25/2014	Belmar Development - Paramount Condo	701 N FTL BEACH BLVD	59/2016	5/9/2016	4/21/2016	5/1/2016	2/2/2016		0.00891	D-40		Hold on Building Permit 15050045 but building is occu	-0.00891
R14060		12/9/2014	Pacific National Bank / Fairfield at Flagler Village	673 NE 3 AVE	328 MF Units	4/12/2014	9/24/2015	9/24/2015	4/17/2018		0.07146	A-21			
R14062		12/9/2014	Alor/Element	299 N FEDERAL HWY	299 Room Hotel with 24448 SF Retail	1/29/2015	5/1/2015	12/30/2016	2/14/2017		0.07444	A-7		BP 16120221	0.074435
R14065		12/23/2014	17TH PLACE TOWNHOUSE UNITS	825 NE 17TH TERRACE	3 STORIES 3 BEDROOMS AND 2 CAR GARAGES	2/2/2015	12/23/2014	5/4/2015	9/24/2015	6/8/2017	0.00420	A-19			
R15048		10/13/2015	100 LAS OLAS	100 E LAS OLAS BLVD	120 Multi-Family Units and 228 Hotel Rooms with Retail	11/9/2015	8/19/2016	8/6/2016	7/26/2017		0.13800	A-7		BP 16080703	0.137995
R15001		1/13/2015	Quantum at Flagler Village	701 - 723 N Federal Hwy.	328 MF Units	2/28/2017	11/16/2015	6/29/2015	10/30/2017		0.09246	A-21		Marriott Courtyard Project (BP 15063452)	0.092457
R15004		1/27/2015	CYPRESS CREEK MEDICAL PAVILLION	2122 NW 62ND STREET	77513 SF MEDICAL OFFICE BUILDING	4/22/2015	11/17/2015	4/15/2016	4/5/2017	6/27/2018	0.01500	E-2			
R15005		1/13/2015	Rooms To Go	1413 N Federal Hwy.	39,000 SF Retail Building	0/30/2015	7/16/2015	10/2/2015	2/15/2016		0.00113	C-8			
R15006		2/10/2015	Thirty Third Court Condo	2895 NE 33 CL	Eleven (11) Multi-Family Units	3/6/2015	5/18/2015	6/26/2015	9/15/2016	7/20/2018	0.00266	B-1			
R15008		2/10/2015	Sunset Lake Luxury Residences	353 Sunset Dr.	Eight (8) Unit Multi-Family	4/17/2015	6/22/2015	6/25/2015	5/2/2016	4/27/2018	0.00000	D-38			
15R010		2/10/2015	THE RESERVE AT EDGEWOOD	2807 SW 15TH AVENUE	105 TOWNHOUSES 2 STORY	5/10/2018	7/27/2015	EXPIRED		N/A	0.03100	C-28			
R15013		3/10/2015	AC Marriott Hotel	3017-3029 Alhambra St.	One Hundred Seventy One (171) Room Hotel	4/30/2018	12/13/2017	9/25/2018	7/5/2019		0.02800	D-31		BP 18092263	0.028
R15014		3/10/2015	CORAL RIDGE RETAIL	38,711 SF RETAIL CENTER	722/2015	4/22/2015	6/26/2015	10/2/2015	7/12/2016		0.00464	B-1			
R15015		3/24/2015	Justice Building - Restaurants	524 S. Andrews Ave.	11,600 SF Retail & Restaurant										
R15017		8/28/2018	URBN @ Flagler	401 NE 3rd Avenue	Two Hundred Seventeen (171) Multi-Family Units with 3,200 SF		11/15/2019	OPEN			0.12462	A-21		Reapplied to DRC	0.124615
R15019		4/28/2015	Davie Boulevard Office Building	201 SE 12th St.	7,239 SF Office and Parking Reduction	7/28/2015	10/7/2015	6/24/2015	4/20/2016		0.00145	A-16			
R15023		5/12/2015	788 E. Las Olas	788 E. Las Olas Blvd.	34,429 SF Office, Retail & Restaurant	8/5/2015	10/26/2015	3/22/2016	9/1/2016	1/15/2019	0.00622	A-8			
R15024		5/28/2015	7-ELEVEN	2990 W BROWARD BLVD	1 NEW 3010 SF WITH CAR WASH AND 16 FUELING	9/24/2015	11/5/2016	6/26/2016	8/31/2016	4/10/2017	0.00110	C-8			
R15028		6/23/2015	Flagler Townhomes	645 NE 4th Ave.	Five (5) Townhome Units	6/7/2016	9/16/2016	9/22/2016	6/30/2017		0.00362	A-8		BP 16091857	0.003623

R16022	6/14/2016	1201 E Broward Blvd	1201 E Broward Blvd	1,750 SF Office Use within 100' of Residential Property	6/27/2016	11/10/2016	12/20/2016	5/10/2017	6/10/2019	0.00021	A-7	East of US 1, flow diverted to A-13 (BP 16121542)	
R16023	6/28/2016	The Residences of Las Olas	215 N New River Drive East	419 Multifamily Units and 4,450 SF Retail Use		3/13/2017	8/24/2017	3/28/2018				I don't believe a capacity letter was done for this one.	
R16024	6/28/2016	NEW HOPE CHRISTIAN SCHOOL	6400 NW 31ST AVENUE	2 STORY 17,724 SF CHILDCARE FACILITY, 2 STORY17,	11/30/2016	11/29/2017	CLOSED	-	-	0.00849	E-5	Building Permit not submitted within 18 months	0.074487
R16025	6/28/2016	790 E Broward	790 E Broward Blvd	329 Multifamily Units and 6,871 SF Retail Use	8/4/2016	2/3/2017	10/2/2017	2/26/2018		0.07448	A-7	East of US 1, flow diverted to A-13 (BP 17100029)	0.074487
R16029	7/12/2016	Holiday Park 12--Unit	700 NE 14th Ave	12 Townhouse Units	6/28/2016	11/28/2016	9/27/2017	4/9/2019		0.00290	A-19	BP 17091363	0.002898
R16030	7/12/2016	3030 North Ocean	3030 N Ocean Blvd	Yard Modifications, 24 Multi-Family Units	3/2/2016	9/1/2016	4/30/2017	4/26/2018		0.00600	B-3	BP 17042774	0.006
R16033	7/12/2016	KLA CHILDCARE	2857 E OAKLAND PARK BLVD	CHILD DAYCARE IN CB ZONING	9/2/2016	12/6/2016	3/14/2017	7/31/2017	8/3/2018	0.00142	B-1		
R16034	8/9/2016	Belmont Village	1031 Seminole Dr / 2539 E Sunrise Blvd	322 789 SF - Astory parking - 1 story ACLF	2/23/2017	3/8/2017	4/12/2017	1/11/2018		0.04442	B-4	BP 17040906	0.044418
R16036	6/27/2016	Riverside Park Townhomes	420 SW 20th Avenue	50 Two-Story Townhouses and Clubhouse	4/30/2017	6/24/2018	OPEN				C-20	New DRC Case No. 19003	
R16038	7/26/2017	MARINE 1957	1957 S ANDREWS AVENUE	INTERIOR/EXTERIOR RENOVATIONS AND CHANGE OF	12/7/2016	11/7/2017	12/7/2016	12/6/2017		0.00000	A-10		
R16039	7/26/2016	1849 Middle River	1849 Middle River Dr	Waterway Use / 10 Multifamily Units	9/30/2016	3/23/2017	12/19/2017	VOID	N/A	0.00150	B-5	BP 17121961, project voided on 10/1/2019	
R16041	7/26/2016	Progresso Village Court	617 NW 1st Ave	10 Townhouse Units	5/22/2017	12/11/2017	12/11/2017	11/30/2017		0.00350	A-104	BP 17120938 (project divided into multiple permits)	0.0035
R16041	8/9/2016	Cubsmart FTL	5601 NE 14th Ave	106,544 SF Self-Storage Facility	9/30/2016	11/10/2016	2/1/2017			0.00215	B-17	BP 17020049	0.002145
R16042	8/9/2016	Holiday Inn Fort Lauderdale	2100 S Federal Hwy	324 Room Hotel	10/28/2019		OPEN			0.03750	D-55		0.037498
R16043	8/23/2016	Flagler Storage	125 NW 4th St / 410 N FLAGLER AVE	49,197 SF Self-Storage Facility	10/20/2016	3/24/2017	4/19/2017	9/28/2017	11/6/2019	0.00024	A-21	BP 17041698	
R16044	7/19/2016	ST JOHN UMC	1520 NW 5TH STREET	BUILDING ADDITION TO CONNECT THE EXISTING TWO	1/17/2017		EXPIRED		N/A	0.00020	A-18		
R16045	9/13/2016	15 Isle of Venice	15 Isle of Venice Dr	Waterway Use & Yard Modification for 7 (Seven) Residential	8/30/2016	5/29/2018	EXPIRED		N/A	0.00145	D-10		
R16048	9/13/2016	UNIVERSAL PROPERTY	1110 W COMMERCIAL BLVD	4 STORY PARKING GARAGE	11/1/2016	5/18/2017	EXPIRED		N/A	0.00303		Private PS	
R16049	9/13/2016	Rivertown	300 SW 1st Ave	1,214 Residential Units and 40,000 SF Retail Use	10/31/2016	8/11/2017	N/A			0.28762	A-7	new application and permits under X Las Olas (which is under construction)	
R16053	9/13/2016	W Hotel Signage	401 N Fort Lauderdale Beach Blvd	Two Monument and Two Free Standing Signs in the Central								No capacity needed... project is for a sign	
R16053	9/27/2016	Fidelity Investments Storage	450 N Federal Hwy	Storage Review in RAC								No capacity needed... project is for a sign	
R16054	9/27/2016	FLB Hotel and Suites	1137 Seabreeze Blvd	224 Room Hotel with Yard and Height Modification	11/9/2016		EXPIRED		N/A	0.05833	D-33		
R16055	10/11/2016	550 Building - Parking Garage	500 S Andrews Ave	Eight Story Parking Garage and 14,000 SF Commercial Space	11/30/2017	3/15/2018	4/24/2018	10/2/2018		0.00103	A-11	BP 18042292	0.001025
R16056	10/11/2016	Ergon / Moss	1450 Progresso Dr / 1200 NE 15TH ST	Two Warehouse Buildings Totaling 64,177 SF	11/7/2016	14/2017	1/13/2017	5/10/2018	4/10/2019	0.00338	A-27		
R16058	10/25/2016	Las Olas Walk - South	200 S Federal Hwy	127 Residential Units and 656 Parking Space Garage	1/5/2017	2/1/2018	3/5/2018	10/12/2018		0.03175	A-8	BP 18030356	0.03175
R16059	10/25/2016	Las Olas Walk - North	118 S Federal Hwy	329 Residential Units	8/7/2017	11/14/2017	10/12/2017	10/12/2018		0.07744	A-7 & A-8	Address is wrong in C+. Permit # is 17111111	0.07744
R16060	9/26/2016	RIVERBEND	201 NW 22ND AVE	RIVERBEND SHELL WAREHOUSE	12/23/2016	N/A	8/8/2017	12/15/2017	11/13/2018	0.04193	A-98		
R16061	10/11/2016	Vanessa's Pies	701 E Broward Blvd	14,830 SF Restaurant / Bar & Shared Parking	10/27/2016	8/9/2016	1/19/2017						
R16062	10/11/2016	FXE SHELTAIR NORTHSIDE	1710/1760 NW 62 STREET	DEMOLITION OF EXISTING HANGAR AND PAVEMENTS,	11/1/2016	3/16/2017	2/14/2017	6/7/2018		0.01068	E-2	BP 17021284	0.010681
R16063	10/11/2016	450 Federal - South	460 N Federal Hwy	34,665 SF Commercial Use & 137,667 SF of Garage Parking			11/17/2016	6/29/2015	3/2/2016			No capacity letter, building permit issued before DRC approval. FDEP Permits already approved	
R16066	3/28/2017	Riverwalk Residences at Las Olas	333 N New River Drive East	Conditional Use for Social Services Residential Facility (SSRF) /	5/30/2017	3/23/2018	6/21/2019			0.06241	A-7	Foundation Permit Only - BP 19062477	0.062412
R16067	12/13/2016	201 SW 20th Street	201 SW 20th Street	Seven (7) Residential Units	5/1/2017	6/12/2017	6/14/2018	EXPIRED	N/A	0.00210	A-54	BP 18081207	
R16069	11/22/2016	Quarterdeck New Restaurant	1035 SE 17th St	Two 4,000 SF Restaurants with Off-Site Parking Agreement	1/5/2017	3/6/2017	7/3/2017	12/21/2017		0.00597	D-43	BP 17070055	0.00597
R16070	12/13/2016	Capital One Caf� - Las Olas	801 E Las Olas Blvd	4,467 SF Bank / Restaur. Use in Regional Activity Center - East	11/1/2017	3/23/2017	8/1/2016	8/16/2017	4/29/2019	0.00045	A-8		
R16071	12/13/2016	Five Unit Townhome Development	1224 NE 15th Ave	Five (5) Residential Units	1/11/2017	7/10/2017	8/5/2019			0.00150	A-20	BP 19080313	0.0015
R16072	12/13/2016	Hive FTL	1444 NE 4th Ave	Two 1,100 SF Restaur. 2,240 SF Professional Office & 2,240									
R16073	12/13/2016	501 Seventeenth	501 SE 17th St	Conditional Use for Mixed Use Development / 244 Residential	3/23/2017	12/22/2017	12/18/2017	1/4/2019		0.06122	A-7	BP 17121705	0.06122
R17001	1/10/2017	Middle River Terrace	7th Ave / 540 NE 14th Ct	Conditional Use for Mixed Use Development / 26 Multi-Family	12/13/2017	12/27/2017	5/22/2018	8/7/2019		0.00665	A-10	BP 17122536	
R17003	1/10/2017	CAMBRIA SUITES	2231 N OCEAN BLVD	69 ROOMS HOTEL	4/20/2017	7/27/2017	12/15/2017	2/26/2019		0.01372	B-14	BP 17121522	0.013722
R17005	1/10/2017	488 Residences at Riverwalk	444/488 SW 1st Ave	382 Residential Units and 6,200 SF Retail Use	1/11/2017	12/18/2017	EXPIRED			0.08910	A-11		
R17006	1/24/2017	Forge Lofts	401 NW 1st Ave	35 Residential Units in Downtown RAC	8/25/2017	7/9/2019	4/23/2020			0.00785	A-21	BP 19070775 - Letter revised and updated on 6/12/20	0.00785
R17007	2/14/2017	SE 12th Court Townhomes	826 SE 12th Ct	14 Residential Units	11/8/2018	1/7/2019	OPEN			0.00420	D-43		0.0042
R17008	2/14/2017	Brightline Station & Garage Signage	155 NW 3rd Ave	Sign Review						N/A		Signage, no flow	
R17009	2/28/2017	Sailboat Bend Residential Development	1017 SW 4th St	6 Unit Residential Cluster Development	8/12/2018	5/14/2019	OPEN			0.00200	C-10		0.002
R17010	2/28/2017	ArchCo Metropolitan	500 N Andrews Ave	385 Residential Units, 12,039 SF Restaurant, 14,178 SF Retail in	3/22/2018	11/2/2017	12/20/2017	8/1/2018		0.11281	A-21	BP 17122089	0.112813
R17011	2/28/2017	CIRCLE K CONVENIENCE STORE	901 W SUNRISE BLVD	CONSTRUCTION OF A NEW 4,968 SF, CIRCLE K	5/30/2018	12/7/2018	10/27/2017	1/30/2019		0.00300	A-45	BP 17102565	0.003
PRE17002	2/28/2017	South Fork Marina	1500 SW 17th St	26 Slip Marina w/ Garage & Storage Buildings	8/10/2018	EXPIRED				0.00600	C-13	Increase of 0.006 MGD to sewer, 0.002 MGD to water	
R17013	3/14/2017	Ocean 3001	3001 N Ocean Blvd	Mixed Use Development - 16 Residential Units & 2,883 SF	6/14/2016	11/15/2017	EXPIRED			0.00355	B-3		
R17016	3/28/2017	FSMY Office	213 Rose Dr	Waterway Use for 5,000 SF Office								Project Cancelled	
R17014	3/28/2017	Miami 2100	2100 S Miami Rd	Mixed Use Development - 12 Res. Units, 1,096 SF Office &			OPEN			0.00300	D-55	Re-issued capacity letter due to expiration	0.003
R17017	3/28/2017	FXE PARCEL 16C	1600 NW 6TH STREET	CONSTRUCTION OF 16,500 SF AIRCRAFT HANGAR W/ 1650	8/1/2017	10/31/2017	11/22/2017	7/24/2018	2/14/2020		E-5	BP 17111956	
R17018	3/28/2017	FAT City	300 N Andrews Ave	626 Residential Units, 183,011 SF Office & 88,192 SF Retail	10/22/2018	11/20/2018	OPEN			0.18700	A-7 & A-21	Approved by City Commission on 7/11/2017	0.187
R17019	3/9/2017	DATO ELECTRIC	901 SW 27TH AVENUE	NEW CONSTRUCTION OF A TWO STORY METAL	2/20/2017	4/13/2018	2/17/2017	9/10/2018		0.00032	A-56	BP 17020332	0.000318
R17020	4/25/2017	Sistrunk Boulevard Off-Street Public Parking Lots	1136 NW 6th St /W Sistrunk Blvd	Redevelopment of Vacant Parcel to City of Fort Lauderdale	N/A							Parking Lot, no flow	
R17021	4/25/2017	Sistrunk Boulevard Off-Street Public Parking Lots	1619 NW 6th St /W Sistrunk Blvd	Redevelopment of Vacant Parcel to City of Fort Lauderdale	N/A							Parking Lot, no flow	
R17022	4/25/2017	Sistrunk Boulevard Off-Street Public Parking Lots	1812 NW 6th St /W Sistrunk Blvd	Redevelopment of Vacant Parcel to City of Fort Lauderdale	N/A							Parking Lot, no flow	
R17023	5/9/2017	Twin Peaks Rest. & Fairfield Inn Hotel	6210 N Andrews Ave	130 Room Hotel and 8,766 SF Restaurant			OPEN						
R17025	5/23/2017	Southside CityCentre	501 S Andrews Ave	879 Residential Units, 330 Hotel Units, 207,000 SF Office &	8/23/2018	8/30/2018	EXPIRED			0.26200	A-11		
R17026	5/23/2017	Ferrari Maserati of Fort Lauderdale	5750 N Federal Hwy	43,857 SF Building Addition	10/19/2017	8/16/2017	9/19/2017	4/16/2018		0.00180	B-12	BP 17090649	0.001804
R17027	6/13/2017	Victoria Park Shoppes	618 N Federal Hwy	Shared Parking Reduction for Development Site with Multiple	N/A							Parking reduction project	
R17028	9/19/2017	Progresso Commons	947 N Andrews Ave	Conditional Use for Convenience Store within Shopping Center		11/15/2018	5/30/2019	OPEN		0.01223	A-104	BP 19053105 (per 11/20/2019 note - on hold until 202	0.012232
R17029	6/13/2017	Fiori Financial Group	311 SE 7th St	15,968 SF Office in Downtown	4/30/2018	8/11/2017	EXPIRED			0.00200	A-11		
R17030	6/13/2017	THE WAVE	1000 W STATE ROAD 84	MIXED USE DEVELOPMENT WITH RESIDENTIAL FLEX	2/9/2018	2/9/2018	EXPIRED			0.04275	A-59		
R17032	6/27/2017	212 Southeast 2nd Avenue	212 SE 2nd Ave	349 Residential Units and 25,222 SF Retail in Downtown	4/23/2017	2/9/2018	6/18/2018	12/11/2018		0.08934	A-7	BP 18061392	0.08934
R17033	6/27/2017	201 East Las Olas	225 E Las Olas Blvd	373,400 SF Office and 16,500 SF Retail in Downtown	10/25/2017	12/22/2017	2/19/2018	9/19/2018		0.08671	A-7	BP 18021610	0.086711
R17038	6/27/2017	Kelly Ustual Sign	500 N Federal Hwy	Non-Compliant Branding Sign in RAC								Signage project, no flow	
R17040	7/25/2017	Bahia Mar	801 Seabreeze Blvd	Mixed Use Development with 651 Residential Units, 118,815 SF	8/2/2018	8/17/2018	OPEN			0.18964	D-32	Site Plan Approval expires 9/14/2020 per extension re	0.189641
R17042	7/25/2017	Alta Flagler Village Phase II	444 NE 7th St	Conditional Use for 12-Story Building with 271 Residential Units	5/9/2018	11/14/2018	4/9/2019	12/20/2019		0.05100	A-21	BP 19040848	0.051
R17043	7/25/2017	Sailboat Bend Apartments	425 SW 4th Ave	110 Affordable Housing Units in Downtown	5/1/2018	8/20/2018	11/26/2018	9/27/2019		0.02800	A-42	BP 18112000	0.028
R17044	8/8/2017	Next Las Olas	418 NE 2nd St	374 Residential Units and 2,733 SF Retail in Downtown	12/1/2017	3/12/2018	9/10/2018	11/5/2019		0.09200	A-11	BP 18080608	0.092
R17046	8/9/2017	Holman Lauderdale Redesign / Renovation	900 E Sunrise Blvd	14,867 SF Showroom Building Addition, 172,882 SF	11/7/2017	9/17/2018	12/21/2017	12/6/2018	1/31/2020	(0.00339)	A-17	BP 1	

R17076	12/12/2017	912 Victoria Park	912 NE 4th Street	12/11/2018	1/16/2019	12/11/2019	OPEN	2/28/2020	0.00200	A-17	BLD-RNC-19120007	0.002	0.002
R15041	8/11/2015	1075 W Sunrise Boulevard	1075 W Sunrise Boulevard	1/27/2017	2/12/2016	6/27/2016	3/8/2017		0.00167	A-45	BP 16062418		
-	-	1951 SW 28th Avenue	401 S. Fort Lauderdale Beach Boulevard	1/27/2017	1/27/2017	1/27/2017	N/A		0.00030		No DRC Case		
R18011	2/13/2018	Beach Boy Plaza	401 S. Fort Lauderdale Beach Boulevard	8/16/2018	EXPIRED				0.06000	D-31			
SITE-19100007 (formerly R18049)	7/24/2018	Croissant Park II	1400 - 1410 SW 4th Avenue	2/17/2020	OPEN	2/26/2019	OPEN		0.00000	A-12	Multiple masters (search by Owner as Croissant TH I	0.001615	0.001225
R17066	11/28/2017	Cumberland Farms	Sunrise Boulevard and NE 4th Avenue	10/16/2018	7/19/2019	9/25/2019	OPEN		0.00300	A-28	BP 19052211	0.003	0.003
R15065	12/8/2015	Cypress Creek Place	SE corner of W Cypress Creek Road and Powerline Road	12/7/2016	EXPIRED	4/19/2016			0.00613				
R15032	7/14/2015	Dunkin Donuts	350 W Sunrise Boulevard	1/13/2016	1/13/2016	4/1/2016	6/15/2017		0.00193	A-104	BP 16070744 is expired but they have a TCO	0.001926	0.001926
-	-	Florida International Terminal Office Building	4100 McIntosh Road	10/19/2016	EXPIRED				0.00105		No DRC Case		
R18038	6/12/2018	Florida Community Bank	1790 East Commercial Boulevard	7/17/2018	11/7/2018	7/23/2018	3/4/2019	11/27/2019	0.00004	B-9	BP 18071941		
R18055	8/14/2018	440 NE 3rd Avenue	440 NE 3rd Avenue	11/6/2018	4/17/2019	9/30/2019	OPEN		0.00900	A-21	BP 19052692	0.009	0.009
R19022	4/9/2019	One Financial Plaza Redevelopment	100 SE 3rd Avenue	Construction of 241 Residential units with 15,178 SF of retail	7/3/2019	3/11/2020			0.05960	A-7	Reissued updated letter on 7/3/2019	0.059598	0.059598
R18061	9/11/2018	Seven Seas II	909 NE 17th Avenue	10/17/2018	EXPIRED				0.00200	A-19			
R18020	4/24/2018	3000 Alhambra	3000 Alhambra	4/30/2020	OPEN				0.00200				
R18039	6/26/2018	iTown Project	208 - 210 SE 9th Street	10/12/2018	EXPIRED				0.01100	A-11	Reissued updated letter on 4/30/2020	0.039004	0.02733
-	-	Oak Tree	2400 Oak Tree Lane	4/3/2020	N/A						Updated with letter issued on 3/4/2020		
R18001	1/9/2018	Dajani Plaza	1512 NW 19th Street	10/9/2018	5/1/2019	7/12/2019			0.00200	A-48	BP 19071220	0.002	0.002
R18017	3/27/2018	The Oak Hotel	1055 N. Federal Highway	10/1/2018	9/25/2019	10/3/2019			0.00600	A-14	BP 19100423	0.006	0.006
-	-	520 N. Birch Road Condominium	520 N. Birch Road	9/19/2018	EXPIRED				0.00400		No DRC Case		
R18037	6/12/2018	Art Lofts	637 NE 4th Street	9/17/2018	5/17/2019	11/28/2019	4/17/2020		0.00300	A-21	BLD-CNC-19110009	0.003	0.003
R15033	7/14/2015	Crown Center Plaza	1401 NW 62nd Street	9/5/2018	10/9/2019	12/11/2019	OPEN		0.00600	E-2	BLD-CNC-19120004	0.006	0.006
R16049	9/13/2016	X Las Olas (Previously known as Rriverfront)	301 & 221 SW 1st Avenue	8/31/2018	8/11/2017	10/24/2017	11/20/2018		0.32700	A-7	BP 17102133	0.327	0.327
R18022	4/10/2018	195 North Federal Highway	195 North Federal Highway	7/27/2018	1/16/2019	6/17/2019	VOID		0.00200	A-7	BP 19061887		
R18044	7/10/2018	1401 SW 1st Avenue	1401 SW 1st Avenue	7/13/2018	9/25/2018	2/12/2019	6/20/2019		0.00200	A-10	BP 19020987	0.002	0.002
R16047	9/27/2016	Spin Carwash	2700 West Broward Boulevard	10/19/2017	2/16/2018	4/24/2018	10/18/2018	1/14/2020	0.01050	C-26	BP 18042279		
R18067	11/14/2018	New River Yacht Club Phase III	415 SW 1st Avenue	4/26/2019	3/5/2019	8/30/2019	0.05594		0.05594	A-11	BP 19030378	0.055941	0.055941
R18058	8/28/2018	Bayshore Hotel	3016 Bayshore Drive	12/10/2018	CLOSED					D-31	Project not approved by City Commission (6/4/2019 meeting)		
R17047	9/19/2017	Crown Pawn	1268 State Road 7	5,490 SF single-story merchandise building	7/15/2020	OPEN				C-22	Reissued letter after expiration	0.000906	0.000528
R18054	8/28/2018	Residence Inn Hotel	425 Seabreeze Blvd	1/8/2019	EXPIRED				0.03906	D-31		0	0
R18068	10/9/2018	1507 SE 15th Street	1507 SE 15th Street	1/9/2019	1/11/2019	8/27/2019	4/22/2020		0.00200	D-43	BP 19082699	0.002	0.002
R18079	12/11/2018	Henderson Behavioral Health Crisis Stabilization Unit	330 SW 27th Avenue	Proposed 3-story building with 24 rooms on parcel with existing b	1/29/2019	4/9/2019	4/12/2019	OPEN	0.01100	PRIVATE	BP 19041283 Sewer increase by 0.011, water increas	0.011	0.011
R18066	10/23/2018	SeaQuest Aquarium	2554 E Sunrise Boulevard	24/2019	OPEN	7/26/2018	5/24/2019		0.00000	B-4	BP 18072348 (project will not increase demand)		
R19002	1/8/2019	629 Residences	629 SE 5th Avenue	9/8/2019	3/12/2019				0.06085	A-11	Reissued letter to reflect change of 249 units to 251 u	0.060847	0.060847
R19003	1/8/2019	Riverside Park Townhomes	1901 SW 5th Place	3/4/2019	3/6/2019				0.01590	C-20	Site plan extension until 4/4/2022	0.0159	0.0159
-	-	Oak Tree PUD	NW 44th Street	3/4/2019	EXPIRED				0.11400	E-3	Oakland Park Project (subject to large-user agreement)		
R18014	2/27/2018	AutoNation	130 W State Road 84	5/21/2019	5/21/2019	6/12/2019	OPEN		0.02900		BP 19061459 (Water increase for irrigation only)	0.029	0
R18053	8/14/2018	100 Avenue of the Arts	100 NW 7th Avenue	3/19/2019	5/13/2019				0.01100	A-36		0.011	0.011
R18073	11/13/2018	Pier 66	2301 SE 17th Street	3/27/2019	6/15/2019	5/31/2019	OPEN		0.02844	D-35	BP 19020072	0.02842	0.02842
R19018	3/12/2019	Anointed by Christ International Christian Center	501 NW 7th Terrace	4/3/2019	5/15/2019				0.00035	A-36	BP 19020072	0.000345	0.000345
R18018	4/10/2018	Las Olas Marina	240 E. Las Olas Circle	4/5/2019	12/19/2019				0.02404	D-31		0.024044	0.024044
R18076	11/27/2018	Parker Playhouse	707 NE 8th Street	4/15/2019	4/15/2019	4/17/2019	OPEN		0.00000	A-17	BP 19041818, No net increase to sewer or water		
R19004	1/22/2019	YMCA LA Lee Mizell Community Center	1409 NW 6th Street	72,000 SF 4-story YMCA building	4/15/2019	OPEN	11/8/2019		0.01510	A-23	BP 19051516	0.015102	0.015102
R19012	2/26/2019	160 Isle of Venice	160 Isle of Venice	Renovation of an existing 25 unit building to 16-unit residential buildi	4/15/2019	OPEN			0.00217	D-10	Decrease in flow	-0.002173	-0.002173
R19009	2/12/2019	Sano Jet (Phase III)	1525 NW 56th Street	20,000 SF Hangar with no proposed demand	4/22/2019	4/19/2019	OPEN		0.00000		BP 19071802 (No proposed demand)		
R19001	1/8/2019	North Ocean Townhomes	4201 North Ocean Boulevard	Six 2-story townhomes	5/29/2020	OPEN			0.01800	B-2		0.018	0.018
L17001	2/14/2017	Whiddon Parcel Development	1511 SW 9th Avenue	and use change to construct 139 condominiums and 76 townhome	5/1/2019	OPEN			0.05547	A-12		0.055469	0.055469
-	-	City of Wilton Manors LUPA	-	Proposed increase in intensity of land use in the City of Wilton Man	5/8/2019	N/A			0.25800	PRIVATE	land use increase in Wilton Manors, not an actual dev	0.258	0.258
R18005	11/13/2018	Davie Boulevard Townhomes	1515 West Davie Boulevard	12 two-story townhomes	5/13/2019	OPEN			0.00360	C-19		0.0036	0.0036
A19006	-	Fort Lauderdale Aquatic Center	501 Sea Breeze Boulevard	1 of the Fort Lauderdale Aquatic Center and addition of 2,912 sta	5/17/2019	OPEN	7/30/2019	OPEN	0.01200	D-31	BP 19072766	0.012	0.012
R19028	4/23/2019	909 Sistrunk	909 Sistrunk Boulevard	3,335 SF Restaurant and 7,650 SF office	5/23/2019	OPEN			0.00600	A-23		0.006	0.006
R19030	4/23/2019	Shops at the Landing	5554 North Federal Highway	SF building comprised of 4500 SF retail space and 1500 SF rest	5/31/2019	OPEN	6/4/2019	OPEN	0.00200	A-11	BP 19072042	0.002	0.002
R19016	3/12/2019	SkyLofts on 3rd	224 SE 9th Street	Multifamily residential with 60 units and 2,650 SF of retail area	6/4/2019	EXPIRED	7/22/2019		0.01400	A-11	Letter expired, DRC case still open.		0
R19025	4/9/2019	Cypress Creek Commerce Center I	1501 NW 64th Street	86,920 SF Warehouse	6/7/2019	10/7/2019	11/14/2019	OPEN	0.01000	E-2	BLD-PBA-19110001	0.01	0.01
R19023	4/9/2019	Cypress Creek Commerce Center II	1201 NW 64th Street	147,690 SF Warehouse	6/7/2019	10/7/2019	11/14/2019	OPEN	0.01600	E-2	BLD-PBA-19110002	0.016	0.016
R19024	4/9/2019	Cypress Creek Commerce Center III	6320 NW 12th Avenue	139,320 SF Warehouse	6/7/2019	10/7/2019	11/14/2019	OPEN	0.01500	E-2	BLD-PBA-19110003	0.015	0.015
R19005	1/22/2019	Edgewood Villas	1403 SW 31st Court	Cluster townhome development	6/10/2019	OPEN			0.00150	C-28		0.0015	0.0015
R19036	5/28/2019	Lockhart Stadium	1350 NW 58th Street	10,000 SF restaurant/community center, 49,000 SF tra	6/12/2019	OPEN	8/27/2019	11/27/2019	0.06454	A-20	BP 19082702, ERC calculations indicate a net demar	0.064542	0.064542
R19027	4/23/2019	Lineo at Lake Ridge	1040 N Victoria Park Rd	8 residential townhouse units	6/12/2019	OPEN	10/17/2019	OPEN	0.00240	A-20	BLD-CPAV-19100007 (SITE WORK MASTER)	0.0024	0.0024
R18072	11/13/2018	Broward Development II	1870 State Road 84	1,300 SF office space	6/13/2019	OPEN			0.00200	C-27		0.002	0.002
R18080	12/11/2018	Village View	640 North Andrews Avenue	100 multifamily affordable residential units	6/24/2019	2/7/2020	7/8/2019	1/29/2020	0.02505	A-21	BP 19070536	0.02505	0.02505
R19013	2/26/2019	8th Avenue Townhomes	507 NW 8th Avenue	5 two-story townhomes	7/11/2019	12/13/2019	OPEN		0.00150	A-36		0.0015	0.0015
R19017	3/12/2019	Gunther Mazda	1800 S State Road 7	12,800 SF showroom, office, and service reception area	7/18/2019	CLOSED			0.00060	C-2	APPLICATION WITHDRAWN		
R17071	12/12/2017	South Harbor Plaza	1300 - 1340 SE 17th Street	Change of use of office/merchandising to restaurant	7/21/2019	OPEN			0.00306	OPEN		0.00306	0.00306
R18043	6/26/2018	Pearl Riverland	400 SW 27th Avenue	322 multi-family residential unit complex	10/10/2018	2/12/2019	6/24/2019	OPEN	0.05700	PRIVATE	BP 19062608	0.057	0.057
R19015	2/26/2019	Wave Landing	2806 NE 51st Street	5-story 10-unit multi-family building	7/30/2019	OPEN			0.00242	B-11		0.002415	0.002415
R19040	6/25/2019	Shoppes at Rio Vista	901 SE 17th Street	existing bank, development of three buildings (multi-tenant, resta	7/30/2019	12/2/2019	12/11/2019	OPEN	0.00183	D-43	BLD-CNC-19120005	0.001834	0.001834
R18034	5/22/2018	ICON 706	706 NW 1st Avenue	Construction of 10 townhomes and 74 apartments	8/2/2019	12/11/2019	OPEN		0.02087	A-104		0.020871	0.020871
R19014	4/9/2019	The Adderley (formerly West Village)	501 NW 7th Avenue	455-unit residential, ~13000 SF of retail, ~4000 SF of restauran	8/21/2019	4/19/2020	OPEN		0.11466	A-36		0.114668	0.114668
R19033	5/28/2019	Hoover Architectural	844 NW 9th Avenue	ren of two existing buildings and enclosure of an outdoor manufact	9/5/2019	11/14/2019	OPEN		0.00258	A-104		0.002579	0.002579
R19026	4/23/2019	Flagler 2	801 - 819 NE 2nd Avenue	Flagler 2 - 819 NE 2nd Avenue	9/10/2019	OPEN			0.00392	OPEN		0.003915	0.003915
R19031	5/14/2019	Hilton Marina	1881 SE 17th Street	3-story building with 21,800 SF of office, ~2,800 SF of restauran	9/13/2019	OPEN			0.00000	PRIVATE			
R19041	6/25/2019	Healthy Housing Foundation (HHF) Apartments	409 SE 8th Street	500 residential one-bedroom units	9/16/2019	OPEN			0.11925	A-11		0.11925	0.11925
R19037	6/11/2019	627 N Federal Highway	627 N Federal Highway	Building containing a fitness center, movie theater, restaurants, and r	12/10/2019	4/27/2020	OPEN		0.01648	A-21		0.016476	0.016476
R19055	8/27/2019	LMC Crew Lounge	2001 SW 20th Street	Change of use from office to restaurant (~2600									

Impact of Committed Flows on NAPOT by Pump Station

	Current NAPOT (hours)	Committed Flow (MGD)	Projected NAPOT (hours)	Δ (Committed NAPOT) (hours)	Duty Point Flow Rate (GPM)
A-1	4.9	0.008000	5.1	0.19	700
A-7	12.0	1.530792	24.8	12.76	2000
A-8	4.5	0.042538	5.9	1.42	500
A-10	5.2	0.117088	7.6	2.44	800
A-11	5.9	0.254443	9.9	4.04	1049
A-12	4.2	0.056694	6.6	2.36	400
A-13*	-	0.000000	-	-	-
A-14	11.3	0.047247	12.1	0.78	1005
A-16	8.2	0.061560	9.9	1.71	600
A-17	4.5	0.037296	5.2	0.74	843
A-18	13.5	0.002786	13.5	0.05	940
A-19	7.5	0.012561	7.8	0.28	750
A-20	6.4	0.006900	6.6	0.18	630
A-21	7.2	0.943109	23.3	16.07	978
A-23	6.2	0.021102	6.6	0.44	800
A-27	9.7	0.000599	9.7	0.02	600
A-28	7.8	0.047325	9.1	1.31	600
A-36	8.0	0.134028	10.4	2.35	950
A-42	1.7	0.080248	4.9	3.17	422
A-45	3.7	0.003000	3.8	0.07	747
A-48	2.4	0.002000	2.5	0.08	400
A-54	2.0	0.000000	2.0	0.00	1076
A-55	4.1	0.000000	4.1	0.00	132
A-56	3.3	0.000318	3.3	0.01	534
A-57	2.4	0.004083	2.7	0.26	260
A-59	2.1	0.000000	2.1	0.00	390
A-95	2.8	0.001242	2.9	0.07	300
A-104	1.3	0.000000	1.3	0.00	1269
A-105	15.6	0.000000	15.6	0.00	400
B-2	3.8	0.001800	3.8	0.02	1200
B-3	6.0	0.006000	6.2	0.22	450
B-4	6.6	0.057018	8.0	1.36	700
B-5	6.7	0.000000	6.7	0.00	871
B-9	6.1	0.000000	6.1	0.00	700
B-11	7.2	0.004415	7.3	0.11	700
B-12	5.6	0.001804	5.7	0.05	600
B-14	17.1	0.024919	17.4	0.26	1600
B-17	4.6	0.002145	4.7	0.14	250
C-2	7.6	0.000000	7.6	0.00	930.7
C-8	2.8	0.000231	2.8	0.01	630
C-10	1.6	0.004000	1.7	0.08	800
C-12	1.8	0.005000	2.0	0.18	460
C-13	2.9	0.001600	2.9	0.05	550
C-19	1.5	0.003600	1.6	0.09	641
C-20	2.8	0.015900	3.2	0.40	662
C-22	3.6	0.014729	7.5	3.93	62.5
C-26	2.4	0.002000	2.4	0.03	1000
C-27	4.8	0.000200	4.8	0.02	190
C-28	1.8	0.001500	1.9	0.06	389
D-10	10.8	-0.000046	10.8	0.00	300
D-11	20.5	0.002699	20.8	0.28	160
D-31	4.4	0.091374	6.9	2.54	600
D-32	3.3	0.190241	17.7	14.41	220
D-35	4.3	0.028442	5.2	0.95	500
D-40	4.8	0.001250	4.8	0.02	1053
D-41	9.9	0.079034	14.0	4.13	319
D-43	9.9	0.021004	10.3	0.36	985
D-44	4.5	0.025552	4.9	0.35	1200
D-55	3.0	0.040706	4.8	1.79	380
E-2	4.6	0.057681	5.8	1.20	800
E-3	9.4	0.000000	9.4	0.00	563
E-4	1.2	0.064542	3.9	2.69	400
E-5	6.7	0.000000	6.7	0.00	600
E-6	3.5	0.005000	3.6	0.10	800
E-12	2.6	0.006800	2.7	0.11	1040

Total Committed Flows (including private PS, etc.): 4.384 MGD

Legend
NAPOT > 8 Hrs
NAPOT > 10 Hrs

*Committed Flow for A-13 is also included within A-7 committed flow until A-13 is placed into service



SUSTAINABLE DEVELOPMENT – URBAN DESIGN & PLANNING

GUIDELINES FOR THE CALCULATION OF SANITARY SEWER CONNECTION FEES

Rev: 2 | Revision Date: 5/01/2019 | Print Date: 2/22/2017 I.D. Number: GCSSCF

Guidelines for the Calculation of Sanitary Sewer Connection Fees

I. Purpose

The City of Ft. Lauderdale Department of Public Services provides water and wastewater services to customers throughout the City and to certain customers outside of the City. Customers first connecting to the city's water or wastewater system are charged fees to defray a portion of the capital cost of the City's utility facilities constructed to provide them service. For those fees that are calculated based on the number of Equivalent Residential Connections ("ERCs") that each customer represents, these Guidelines are to define and describe the method of calculating the number of ERCs and related connection fees.

II. Severability

That if any clause, section or other part of these Guidelines shall be held invalid or unconstitutional by any court of competent jurisdiction, the remainder of the Guidelines shall not be affected thereby, but shall remain in full force and effect.

III. Calculation of ERCs

A. From time to time, properties may be required to connect to the wastewater system. The number of ERCs to be used for the calculation of connection fees will be determined as follows:

1. For residential properties, the number of units associated with the property will be multiplied by the "ERC per unit factor" listed on Table A, below. As an example, a single family detached home is 1 ERC. A four-unit attached residential building is a total of 3.22 ERCs. $((0.805 \text{ ERCs/unit}) \times (4 \text{ units}) = 3.22 \text{ ERCs})$
2. For non residential properties, where available, ERCs will be based upon each customer's actual water usage demand for the past three-year period, as follows:
 - a. Three years of water billing consumption will be extracted from the customer billing data.
 - b. Unless as otherwise noted below, the three maximum months will be identified from the three years consumption data. The average daily flow for all three months will be calculated. This result will be the gpd demand used for calculation of ERCs.
 - c. If any of the maximum months are found to be invalid for use in determining gpd demand, the next maximum month(s) will be used. Reasons for a determination of invalidity may include a significant water leak or other non-continuing or extraordinary use of the water.
 - d. The daily flow determined above will be divided by a factor of 300 gpd maximum daily demand for a residential customer.



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3. In the event that the past water use is not an appropriate basis for the estimation of current water use demand, Table A will be used to determine number of ERCs. A finding that the past water use is not appropriate may be made if it is expected that the current or future use of the property is significantly different that the use during the historical period.
4. Vacant properties, properties where water service has not been provided for the past twelve (12) month period and properties under construction will not be charged a connection fee until such time as the property owner makes an application to (re)connect to the water system. At that time, adequate information (see Section B, below) must be submitted and the calculation of ERCs will be performed using gpd from Table A.
5. The basis for calculation of ERCs for all other properties that are not currently connected to the water system will be determined at the time of the customer's request to reconnect to the water system. Factors considered to determine which of the two methods will be applied will include the intended future use of the property as compared to its historical use.
6. When applying the ERCs defined in Table A to mixed use properties, each specific use will be separately calculated, and the sum of each use will be the total ERCs.

B. For properties for which past water use cannot be used to determine ERCs, property owners shall provide building plans, owner's affidavit and/or other sources of information, including access to inspection of the property, that contains information adequate to make a determination of ERCs, to the PM. Based on that information, the ERC's will be calculated as follows:

The type of use will be found listed on Table A, below. For residential properties, the number of units associated with the property will be multiplied by the "ERC per unit" listed on Table A. For all other uses, the "Unit of Measure" will be determined, and then multiplied by the "ERC per Unit". For example, a 3000 square foot restaurant will equal 7.485 ERCs. $(3000\text{sf}) / (1000 \text{ sf per unit}) = 3 \text{ units}$. $(2.495 \text{ ERCs/unit}) \times (3 \text{ units}) = 7.485 \text{ ERCs}$.

C. The number of ERCs determined under any application of the above-described calculations will be no less than 1 ERC for all nonresidential properties.



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Table A

TYPE OF USE	UNIT OF MEASURE	ERC per UNIT	REF. CODE
Equivalent Residential Connection	----	1.000	----
Single Family House, Duplex, Triplex	each	1.000	R01
Condominium, Apartment	each	0.805	R03
Mobile Home	lot	0.559	R04
Vehicular Repair	1000 SF	0.473	C01
Gas Station (fueling only)	fuel pump	0.550	C02
Laundry and/or Dry Cleaning (staff operated machines)	1000 SF	2.773	C03
Laundry (coin operated machines)	1000 SF	8.659	C04
Merchandising	1000 SF	0.550	C05
Warehouse (mixed use)	1000 SF	0.368	C06
Warehouse (homogenous, bulk storage use)	1000 SF	0.177	C07
Self Service Storage	1000 SF	0.068	C08
Restaurant	1000 SF	2.495	C09
Fast Food Service	1000 SF	3.455	C10
Bar, Cocktail Lounge	1000 SF	1.236	C11
Office	1000 SF	0.636	C12
Day Child Care	1000 SF	0.632	C13
Place of Worship	1000 SF	0.523	C14
School	student	0.042	C15
Hotel (with restaurant and/or meeting rooms)	rental room	0.868	C16
Hotel (without restaurant and meeting rooms)	rental room	0.255	C17
Movie Theater	seat	0.009	C18

D. The above table is based on the Broward County Office of Environmental Services (OES) Equivalent Residential Unit (ERU) factors for sizing water meters and determining certain fees and charges. Most of the data for the OES schedule was obtained in 1995 by determining the water usage characteristics for actual OES customers within Broward County, Florida.

The 1995 study included 3,364 apartments and condominiums; 2,175 mobile homes; 40,000 square feet of laundries; 645,000 square feet of merchandising; 1,719,000 square feet of warehousing; 881,000 square feet of self service storage; 1,775,000 square feet of office space; 19,331 school students; 7,577 hotel rooms; and 298,000 square feet of landscape and lawn irrigation; just to mention some of the data used to create the schedule. In total, the 1995 study considered customers with a total potable water consumption of 2,403,000 gallons per day.



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E. Not all Types of Use are listed on the schedule. If the Type of Use is listed, the ERC per unit for that Type of Use applies. If a Type of Use is not listed in the schedule, the PM will first determine if a sufficiently similar Type of Use is listed on the schedule. For example, a retirement home is sufficiently similar to an apartment to utilize the apartment ERC factor for the retirement home. If a sufficiently similar Type of Use is not listed, the PM may elect to perform a usage study of existing customers, and add the new Type of Use to the schedule. If a usage study is not performed, ERCs for the Type of Use will be based upon estimates of flow for the Type of Use with one ERC equals 300 gallons per day maximum day water demand.

F. Definitions of Types of Use.

R01 - Single Family House Duplexes and triplexes are sufficiently similar to single family homes so that a duplex equals twice the ERC of a single family residence and a triplex equals three times the ERC of a single family residence. Town homes are sufficiently similar to single family homes to utilize the single family house ERC factor for each town home. Town homes are distinguishable from condominiums in that each town home has a private yard. Structures used for non-residential purposes do not qualify for this Type of Use. The unit for this Type of Use is each single family house.

R03 - Condominium, Apartment. Includes laundry in the individual units and/or central laundry facilities. Includes any central activities like clubhouse or pool. The unit for this Type of Use is each condominium or apartment.

R04 - Mobile Home. Includes individual laundry in the mobile home and/or central laundry facilities. Includes any central activities like clubhouse or pool. The unit for this Type of Use is individual mobile home lots.

C01 - Vehicular Repair. Includes auxiliary functions directly supporting this Type of Use like storage, office space and customer waiting area. Oil change and tire service facilities are included in this Type of Use. The portion of gas stations dedicated to vehicular repair is included in this Type of Use. Does not include fueling activities. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C02 -Gas Station (fueling only). Includes up to 1600 SF of gross building area. Includes auxiliary functions directly supporting this Type of Use like storage and office space, and merchandising. Includes a recycled water car wash facility capable of handling one car at a time. Does not include any vehicular repair activities. The unit for this Type of Use is 'fuel pump'. A fuel pump is defined by the number of fueling nozzles that can be active at one time. Separate nozzles for regular and premium fuel that operate in an either/or mode are considered one pump.



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C03 - Laundry and/or Dry Cleaning (staff operated machines). Includes auxiliary functions directly supporting this Type of Use like storage, office space and customer waiting area. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C04 - Laundry (coin operated machines). Includes auxiliary functions directly supporting this Type of Use like storage, office space and customer waiting area, except food/beverage service. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C05 - Merchandising. Includes auxiliary functions directly supporting this Type of Use like storage and office space for staff. Does not include food/beverage service. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C06 - Warehouse (mixed use). Includes buildings with actual or potential mixed use such as storage, some merchandising and light non-water intensive manufacturing. Includes auxiliary functions directly supporting this Type of Use like storage and office space for staff. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C07 - Warehouse (homogeneous, bulk storage use). This is for non-public access bulk storage where the entire structure is used for essentially the same purpose. Includes auxiliary functions directly supporting this Type of Use like office space and showers for staff. Does not include food/beverage service, merchandising or manufacturing. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C08 - Self Service Storage. This is for public storage available on a monthly rental basis. Includes auxiliary functions directly supporting this Type of Use like office space. Does not include food/beverage service, merchandising or manufacturing. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.



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C09 - Restaurant. Includes bar or cocktail lounge. Includes auxiliary functions directly supporting this Type of Use like storage and office space for staff. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C10 - Fast Food Service. Includes drive through facilities. Includes auxiliary functions directly supporting by this Type of Use like storage and office space for staff. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C11 - Bar, Cocktail Lounge. Includes auxiliary functions directly supporting by this Type of Use like storage and office space for staff. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C12 - Office. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C13 - Day Child Care. Includes auxiliary functions directly supporting this Type of Use like storage and office space for staff. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C14 - Place of Worship. Includes auxiliary functions directly supporting this Type of Use like storage, office space, kitchen area and meeting rooms. Includes schooling and child care during worship activities. Does not include utilization of the facility as a school or child care. The unit for this Type of Use is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C15 - School. Includes functions defined as educational plant in Florida Statute 235.011. The unit for this Type of Use is the state certified capacity of number of students of the school. This unit of measure is defined in an agreement between Broward County Government and the Broward County School Board, and is not changeable without following the procedures outlined in the agreement.

C16 - Hotel (with restaurant and/or meeting rooms). Includes auxiliary functions directly supporting this Type of Use like storage, laundry and office space for staff. This Type of Use is distinguishable from Hotel without restaurant and meeting rooms in that this use contains at least one restaurant, bar, cocktail lounge, meeting room or banquet room. The unit for this Type of Use is the number of rooms for rent.



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C17 - Hotel (without restaurant and meeting rooms). Includes auxiliary functions directly supporting this Type of Use like storage, laundry and office space for staff. This Type of Use is distinguishable from Hotel with restaurant and/or meeting rooms in that this use does not contain any restaurant, bar, cocktail lounge, meeting room or banquet room. The unit for this Type of Use is the number of rooms for rent.

C18 - Movie Theater. Includes auxiliary functions directly supporting this Type of Use like traditional movie theater food service, storage and office space for staff. The unit for this Type of Use is the number of theater seats.

IV. Calculation of Sanitary Sewer Connection Fees

For each property, the number of ERCs calculated in the above described two methods will be multiplied by the approved per ERC connection fee. The resulting amount will be charged to each property owner.

V. Protests and Appeals

- A. A statement explaining any rights of protest or appeal will be included in property owners' notification of the calculation of ERCs and connection fees due based upon that calculation ("Notification").
- B. Any property owner requesting further explanation of the basis for the calculation of ERCs and connection fee due for his property shall direct such request to the PM in writing no later than thirty (30) days following the mailing date of the Notification. The PM will provide the basis for the calculation of the fee to the property owner within ten (10) business days of receipt of the request.
- C. Any property owner desiring a reconsideration of that calculation shall submit information explaining the basis for a recalculation in writing to the PM within 30 days of the mailing date of the Notification. Within ten (10) working days, the PM will respond to such request, or make a request to the property owner for additional information.
- D. Any property owner not satisfied with the final determination of the ERCs shall notify the PM within 10 days of PM's response in Section C, above. The PM will forward all written communication, as well as details of the calculations, to the City Manager's office.
- E. The City Manager shall make the final determination of the calculation of ERCs and of the connection fee due.



CITY OF FORT LAUDERDALE
City Commission Agenda Memo
SPECIAL MEETING

#19-0786

TO: Honorable Mayor & Members of the
Fort Lauderdale City Commission

FROM: Chris Lagerbloom, ICMA-CM, City Manager

DATE: September 17, 2019

TITLE: Ordinance Amending Chapter 28, Sections 28-255 and 28-256 of the
Code of Ordinances to Amend the Wastewater Plant and Collection
System Capital Expansion Fee and Potable Water Plant and Distribution
Capital Expansion Fee – **(Commission Districts 1, 2, 3 and 4)**

Recommendation

It is recommended that the City Commission approve on second reading an ordinance amending Sections 28-255 and 28-256, Code of Ordinances of the City of Fort Lauderdale, to increase the wastewater plant and collection system capital expansion fee and the potable water plant and distribution capital expansion fee.

Background

The City's water and wastewater systems consist of multiple functional components such as water treatment and distribution, and wastewater treatment and collection. Each of the functional components has a physical or regulatory permitted capacity. Customers first connecting to the City's water or wastewater system are charged fees to defray a portion of the capital cost of the City's utility facilities constructed to provide them service. As the City continues to expand its facilities, future changes in technology, demands, development patterns, and other factors necessitate adjustments to its capital expansion fees. These fees were last updated more than ten years ago.

In the evaluation of the capital facility needs for providing water and wastewater utility service, it is critical that a level of service (LOS) standard be developed. The LOS indicates the capacity per unit of demand for each public facility or service. LOS standards are established to ensure that adequate facility capacity will be provided for future development and for purposes of issuing development orders or permits.

For water and wastewater, the level of service that is commonly used throughout the industry is the amount of capacity available to serve an equivalent residential unit (ERU)

expressed as the amount of usage in gallons on an average day, peak day or maximum month basis. The level of service calculated for the water system used the maximum daily usage per ERU, converted to a gallon per day (GPD) figure. The max day factor was derived from the City’s consumptive use permit and verified with observations in the billing data.

Level of Service Results

Service	Current		Proposed	
	Unit	ERU LOS	Unit	ERU LOS
Water	Average Day	300 GPD	Max Day	300 GPD
Wastewater	Average Day	300 GPD	Average Day	175 GPD

The capital expansion fees were analyzed to ensure that they properly reflect the Utility’s current cost of capacity and ability to serve new connections. The buy-in cost approach was the methodology used for the calculation of the proposed capital expansion fees for the City. This approach determines the capital expansion fees solely based on the existing utility system assets. Specifically, the replacement costs of each system’s major functional components serve as the cost basis for the capacity fee calculation. The buy-in cost approach is most appropriate to use for a system with considerable excess capacity, such that most new connections to the system will be served by that existing excess capacity and the new customers are effectively “buying-in” to the existing system. The resulting fee represents the current cost to buy into the system for an ERU.

Current and Calculated Capital Expansion Fees per ERU

Service	Current Fee	Proposed Fee
Water	\$ 1,386	\$ 1,977
Wastewater	\$ 651	\$ 1,888

This rate structure will be in full force and effect 90 days from its adoption.

Resource Impact

Capital expansion Fees revenues will be appropriated for use on water and sewer capital expansion projects.

Strategic Connections

This item is a *Press Play Fort Lauderdale Strategic Plan 2018* initiative, included within the Internal Support Cylinder, specifically advancing:

- Goal 12: Be a leading government organization, managing our resources wisely and sustainably.
 - Objective 1: Ensure sound fiscal management.

This item advances the *Fast Forward Fort Lauderdale 2035 Vision Plan: We Are Community*.

Attachment

Exhibit 1- Ordinance

Prepared by: Aneisha Daniel, Public Works
 Kymberly Holcombe, Public Works

Department Director: Paul Berg, Public Works

ORDINANCE NO. C-19-29

AN ORDINANCE AMENDING CHAPTER 28, WATER, WASTEWATER AND STORMWATER, SECTIONS 28-255 AND 28-256 OF THE CODE OF ORDINANCES OF THE CITY OF FORT LAUDERDALE, FLORIDA, TO AMEND THE WASTEWATER PLANT AND COLLECTION SYSTEM CAPITAL EXPANSION FEE, THE POTABLE WATER PLANT AND DISTRIBUTION CAPITAL EXPANSION FEE, AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, pursuant to adequacy requirements as provided in the City of Fort Lauderdale's ("City") Unified Land Development Regulations of the Code of Ordinances of the City of Fort Lauderdale Comprehensive Plan and the State of Florida growth management laws as provided in the Florida Statutes, no development permits are to be issued by the City unless certain services and facilities are adequate to serve the proposed development including wastewater and potable water service; and

WHEREAS, the City adopted Resolution No. 85-265 approving a policy relating to the collection of capital expansion charges for water and sewer facilities, and a plan review fee to determine flow allocations ("Policy"); and

WHEREAS, since the adoption of the Policy, the City has been collecting and expending these charges for water and sewer capital expansion in order to serve new development; and

WHEREAS, pursuant to Resolution No. 02-206, the City approved the Guidelines for Calculating an Equivalent Residential Connection Fee ("Guidelines") associated with the Waterworks 2011 Program ("Program") that was accepted pursuant to Resolution 02-205; and

WHEREAS, the City authorized the consultants to conduct a study analyzing the City's Policy to determine the Policy's adequacy to address future water and sewer needs, and if necessary, to recommend revisions to the methodology for calculating capital expansion fees for new connections, which contribute to the need for expansion; and

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WHEREAS, the results of this study are included in a document entitled FY 2018 Water & Wastewater Comprehensive Rate Study ("Study"); and

WHEREAS, it has been determined by the City that based on the Study, changes to the capital expansion fees are needed in order to ensure that the required funds are available to pay for the necessary improvements to the potable water and wastewater systems to provide adequate potable water and wastewater service for future development;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF FORT LAUDERDALE, FLORIDA:

SECTION 1. That Section 28-255 - Wastewater Plant and Collection System Capital Expansion Fee of the Code of Ordinances of the City of Fort Lauderdale, Florida, is amended to read as follows:

Sec. 28-255. Wastewater plant and collection system capital expansion fee.

(a) An applicant for a building permit to construct a new facility, expand or change the existing use requiring additional capacity for the applicant's property shall pay appropriate capital expansion fees of ~~two dollars and seventeen cents (\$2.17)~~ten dollars and seventy-nine cents (\$10.79) per gallon or ~~six hundred fifty-one dollars (\$651.00)~~one thousand eight hundred eighty-eight dollars (\$1,888.00) per equivalent residential connection (~~three hundred (300)~~one hundred seventy-five (175) gallons per day) as determined in accordance with Table A contained in the "Guidelines for the Calculation of Sanitary Sewer Connection Fees" developed by the ~~department of public services~~public works department and adopted by resolution of the city commission.

(b) An applicant for a building permit to connect to the sanitary sewer system under the WaterWorks 2011 Program shall be exempt.

(c) ~~Existing e~~Customers who connected to the sanitary sewer system under the WaterWorks 2011 Program expanding or changing usage which requires additional capacity for the applicant's property shall pay appropriate capital expansion fees of ~~two dollars and seventeen cents (\$2.17)~~ten dollars and seventy-nine cents (\$10.79) per gallon or ~~six hundred fifty-one dollars (\$651.00)~~one thousand eight hundred eighty-eight dollars (\$1,888.00) per equivalent residential connection (~~three hundred (300)~~one hundred

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~~seventy-five(175)~~ per day) as determined in accordance with Table A contained in the "Guidelines for the Calculation of Sanitary Sewer Connection Fees" developed by the ~~department of public services~~public works department and adopted by resolution of the city commission, calculated on the amount of additional capacity needed.

(d) Capital expansion fees as provided in this section shall be collected and held in a separate fund of the city to be used to pay only the cost, expenses and fees associated with capital expenditures and existing debt service related to system expansion for the sanitary sewer system required to meet the needs of development occurring on or after the effective date of this section.

SECTION 2. That Section 28-256 - Potable Water Plant and Distribution Capital Expansion Fee of the Code of Ordinances of the City of Fort Lauderdale, Florida, is amended to read as follows:

Sec. 28-256.Potable water plant and distribution capital expansion fee.

(a) An applicant for a building permit to construct a new facility, expand or change the existing use requiring additional capacity for the applicant's property shall pay appropriate capital expansion fees of ~~four dollars and sixty two cents (\$4.62)~~six dollars and fifty-nine cents (\$6.59) per gallon or ~~one thousand three hundred eighty six dollars (\$1,386.00)~~one thousand nine hundred seventy-seven dollars (\$1,977.00) per equivalent residential connection (three hundred (300) maximum gallons per day) as determined in accordance with Table A contained in the "Guidelines for the Calculation of Sanitary Sewer Connection Fees" developed by the ~~department of public services~~public works department and adopted by resolution of the city commission.

(b) Capital expansion fees as provided in this section shall be collected and held in a separate fund of the city to be used to pay only the cost, expenses and fees associated with capital expenditures and existing debt service related to system expansion for the potable water system required to meet the needs of development occurring on or after the effective date of this section.

SECTION 3. That if any clause, section or other part of this Ordinance shall be held invalid or unconstitutional by any court of competent jurisdiction, the remainder of this Ordinance shall not be affected thereby, but shall remain in full force and effect.

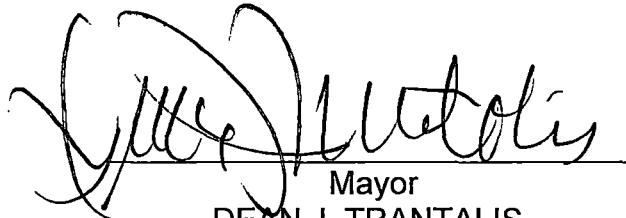
CODING: Words, symbols, and letters ~~stricken~~ are deletions; words, symbols, and letters underlined are additions.

SECTION 4. That all ordinances or parts of ordinances in conflict herewith, be and the same are hereby repealed.

SECTION 5. That this Ordinance shall be in full force and effect upon completion of ninety (90) days required advertised public notice.

PASSED FIRST READING this the 12th day of September, 2019.

PASSED SECOND READING this the 17th day of September, 2019.



Mayor
DEAN J. TRANTALIS

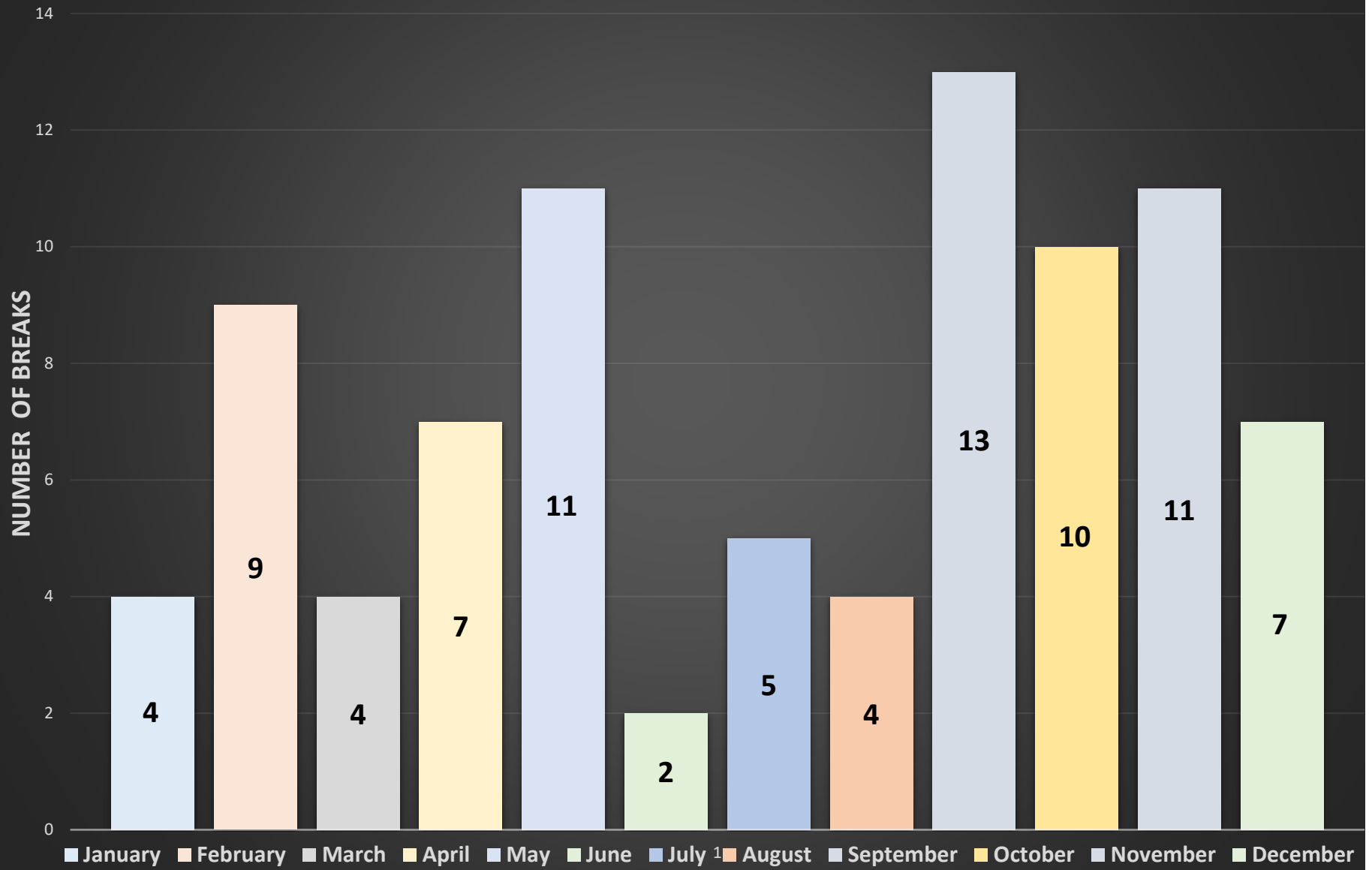
ATTEST:



City Clerk
JEFFREY A. MODARELLI

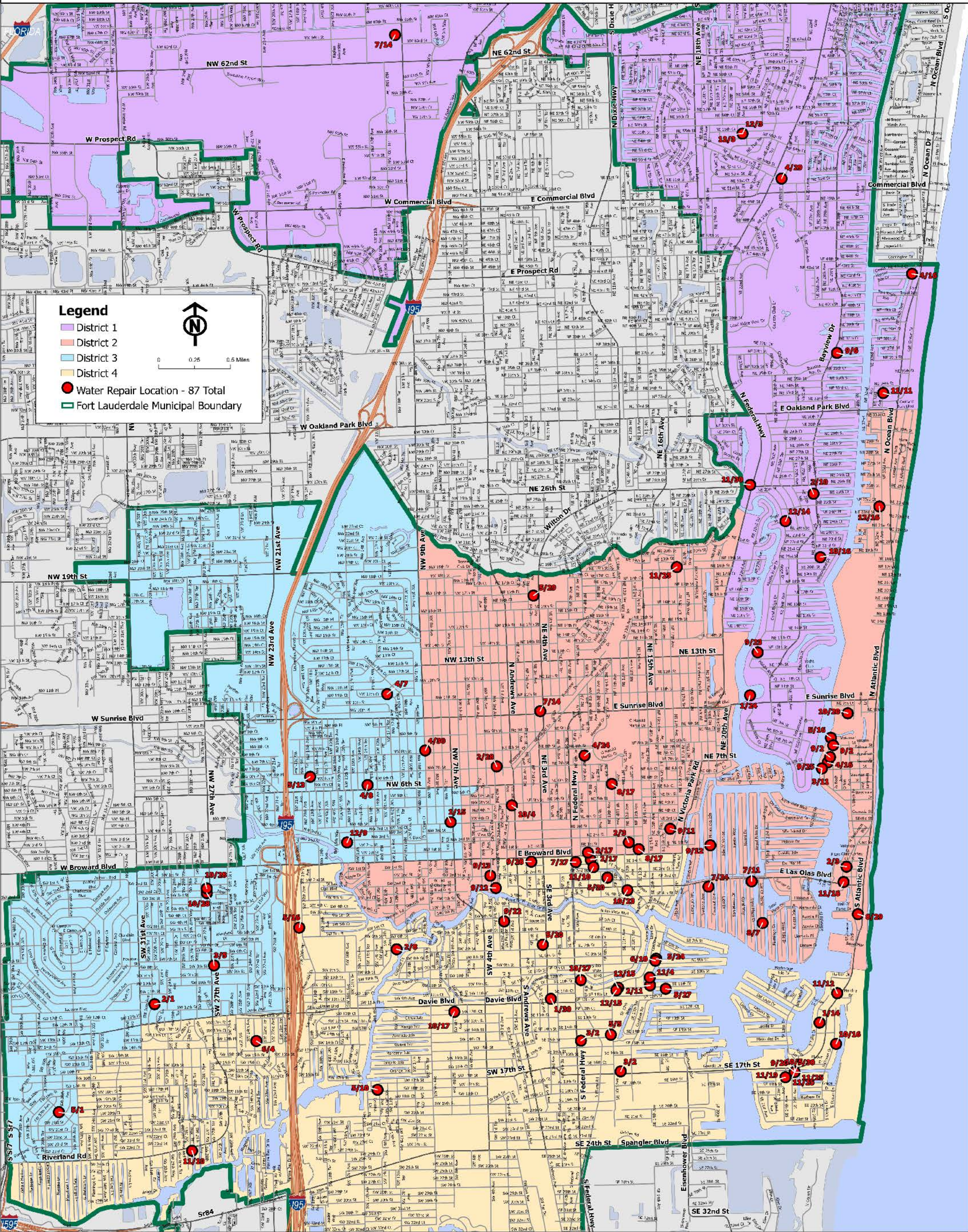
Total Water Main Breaks by Month (2020)

January 2020 - December 2020





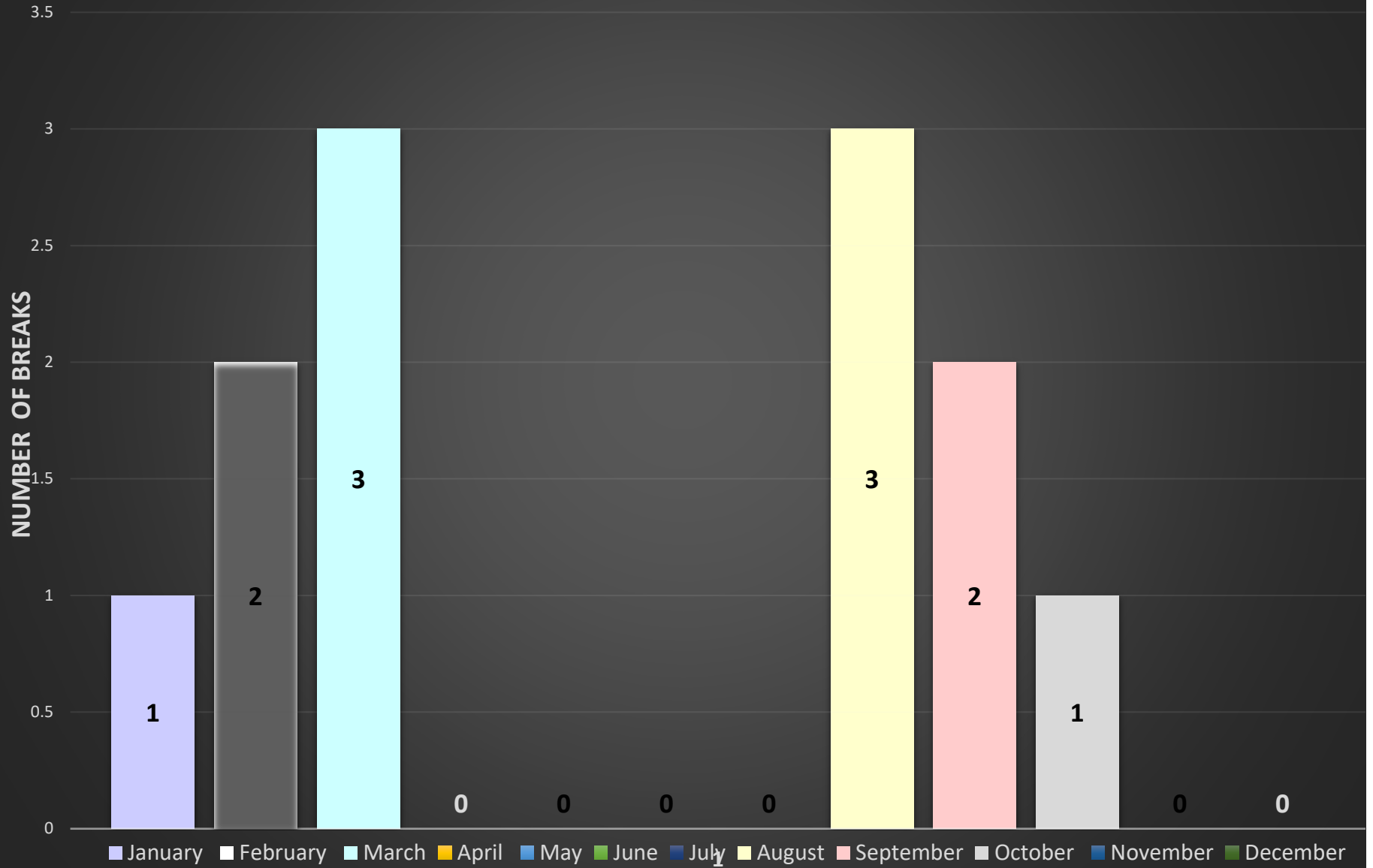
FY 2020- Locations for Water Distribution Breaks



Date of break/PBWN	Q-Alert#	Address	Type	Size	Date of break/PBWN	Q-Alert#	Address	Type	Size	Date of break/PBWN	Q-Alert#	Address	Type	Size
1/14/2020	579326	1400 East Lakes Dr	Water Main	6-inch	4/29/2020	618024	5201 NE 24 Terrace	Water Main	6-inch	10/27/2020	683099	611 Ponce De Leon Dr	Water Main	6-inch
1/18/2020	580923	NW 4 Street & W Avenue	Water Main	12-inch	4/30/2020	618025	812 NW 4 Avenue	Water Main	12-inch	10/28/2020	684253	SW 27 Ave between SW 2 Ct & SW 4 Pl	Water Main	8-inch
1/24/2020	585714	1101 Bayview Dr (North Broward Road)	Water Main	6-inch	5/1/2020	618940	SW 35 Terrace & Fairfax Drive	Water Main	6-inch	10/28/2020	684253	315 SW 27 Ave	Water Main	8-inch
1/30/2020	585714	SE 3 Ave & Davie Blvd	Water Main	2-inch	5/5/2020	620071	SE 14 Ct & SE 10 Ave	Water Main	6-inch	11/4/2020	690231	SE 10 St & Cordova Rd	Water Main	8-inch
2/1/2020	585777	2972 SW 11 Ct	Water Main	6-inch	5/10/2020	621514	SW 14 Ave & SW 18 St	Water Main	6-inch	11/10/2020	690231	Bayview Dr & NE 2 Street	Service Line	8-inch
2/3/2020	587313	100 S Birch Rd	Water Main	18-inch	5/13/2020	620970	700 NW 19 Ave	Valve	6-inch	11/30/2020	690880	2828 Riverland Rd	Water Main	8-inch
2/3/2020	587996	NE 1 St between NE 12th and 13th Ave	Water Main	6-inch	5/16/2020	623278	777 Bayshore Drive	Water Main	8-inch	11/11/2020	691687	NE 34 St & NE 33 Ave	Water Main	6-inch
2/8/2020	589676	South Fork New River	Water Main	16-inch	5/16/2020	623735	525 SW 20 Ave	Water Main	6-inch	11/12/2020	691855	Harbor Dr & A1A	Water Main	8-inch
2/10/2020	590310	Bayview Dr & NE 25 Ct	Water Main	10-inch	5/20/2020	624145	SE 6 thru 7 St between SE 1 & 3 Ave	Water Main	16-inch	11/16/2020	693722	N. Birch Rd & E. Las Olas Blvd	Water Main	6-inch
2/11/2020	590310	SE 11 Street & Cordova Rd	Water Main	6-inch	5/20/2020	624145	SE 2 Ct between SE 9 Ave & SE 10 Ter	Water Main	6-inch	11/19/2020	698036	17 Street Ramp (2426 SE 17 St)	Water Main	10-inch
2/17/2020	592112	900 E Broward Blvd	Water Main	6-inch	5/21/2020	626415	811 Cordova Road	Water Main	8-inch	11/25/2020	700402	NE 19 St & NE 17 Ter	Water Main	6-inch
2/17/2020	592183	SE 9 Ave & E Broward Blvd	Water Main	6-inch	5/27/2020	626613	1528 SE 11 Dr	Water Main	6-inch	11/25/2020	700402	1700 SE 25 Ave	Water Main	12-inch
2/28/2020	597032	1 Ave & NW 7 St	Water Main	8-inch	5/29/2020	628063	1791 NE 4 Ave	Water Main	6-inch	11/25/2020	701136	NE 26 Street & US-1	Water Main	6-inch
3/2/2020	597532	SE 10 Ave & SE 10 St	Water Main	8-inch	6/4/2020	629817	2237 SW 14 St	Water Main	6-inch	11/30/2020	701136	NE 26 Street & US-1	Water Main	6-inch
3/2/2020	597446	SE 14 Ct & US 1	Water Main	6-inch	6/10/2020	631864	Cordova Road, SE 7, SE 8, & SE 9	Valve	8-inch	12/3/2020	703093	2090 NE 55 Ct	Water Main	8-inch
3/5/2020	599332	SW 27 Ave & 9 St	Water Main	8-inch	6/10/2020	643403	Royal Palm Drive & Las Olas Blvd	Water Main	6-inch	12/3/2020	703093	2090 NE 55 Ct	Water Main	6-inch
3/11/2020	611400	Bayshore Dr & Tarramar St	Water Main	6-inch	7/14/2020	644534	0303 & 0303 Powerline Rd (NW 9th Ave)	Water Main	6-inch	12/8/2020	703349	1530 NW 3 St	Water Main	6-inch
4/1/2020	611400	1039 NW 11 Court	Water Main	6-inch	7/14/2020	644261	301 E Sunrise Blvd	Water Main	4-inch	12/14/2020	707422	Middle River Dr & Fryer point	Water Main	6-inch
4/8/2020	611989	1409 NW 6 St	Water Main	4-inch	7/24/2020	644261	Coconut Island Bridge	Water Main	8-inch	12/15/2020	108872	Hector Park (1001 SE 11 St)	Water Main	6-inch
4/18/2020	587437	612 Bayshore Dr	Water Main	6-inch	7/27/2020	653984	30 S Federal Hwy (Fairfield Inn)	Fire Service	4-inch	12/15/2020	708872	1010 SE 11 St	Water Main	8-inch
4/18/2020	611989	Castle Harbor Isle Dr, NE 42 Ct & NE 34 Ave	Water Main	6-inch	8/7/2020	653984	624 Isle of Palm Dr	Water Main	6-inch	12/16/2020	709200	2223 NE 33 Ave	Water Main	6-inch
4/24/2020	611989	NE 7th Avenue between NE 7 & NE 8 Street	Water Main	6-inch	8/7/2020	653984	524 SE 543 NE 11 Ave	Water Main	6-inch					

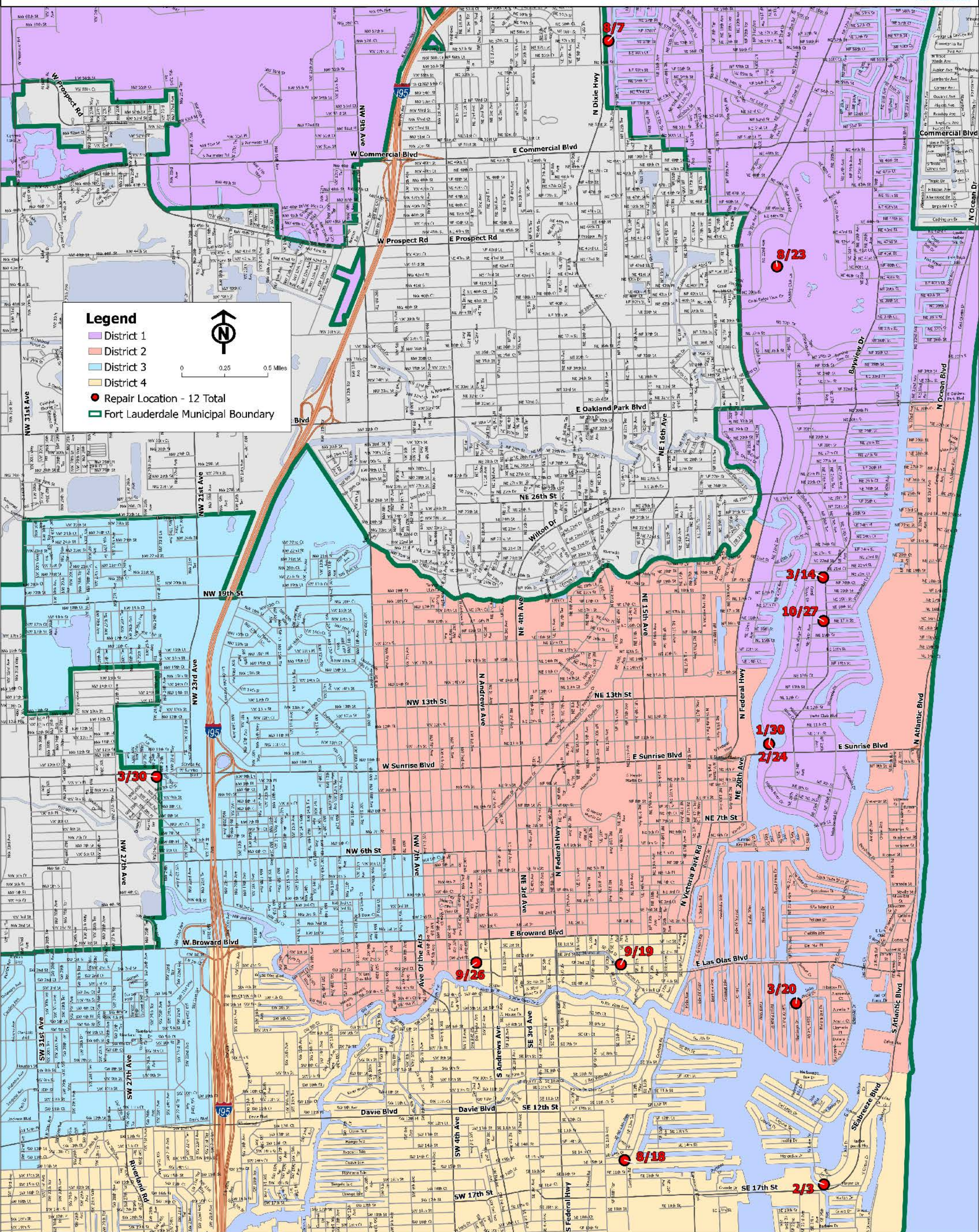
Total Force Main Breaks by Month (2020)

January 2020 - December 2020





FY 2020- Locations for Sewer Force Main Breaks



Date of Break	Q-Alert#	Address	Type	Size	Cause	Volume (Ga)	SSO Issued
1/30/2020	586291	1101 Bayview Drive	Force Main	42"	Age of pipe	79,320,000	Y
2/3/2020	587327	1660 River Lane	Force Main	4"	Age of pipe	500	N
2/24/2020	594798	1101 Bayview Drive	Force Main	14"	Broken pipe	20,520,000	Y
3/14/2020	602845	NE 21 Street & Bayview Drive	Force Main	12"	Broken pipe	18,225	Y
3/20/2020	605815	Riviera Isle Dr. & Solar Plaza Dr.	Force Main	6"	CIP age, deteriorated	300	N
3/30/2020	608563	NW 24 Ave. & NW 9 Pl. (aka: 2400 Sunrise Blvd)	Force Main	12"	AT&T driller board into pipe	500	N
8/7/2020	653691	5711 NE 14 Ave.	Force Main	8"	Valve leaking	500	N
8/18/2020	658335	Cordova Rd. & SE 15 St.	Force Main	16"	Holes in bottom of pipe	116,500	Y
8/23/2020	659803	3801 Bayview Dr. (Coral Ridge Country Club Golf Course)	Force Main	24"	3/8-inch corp. torn off	19,528	N
9/19/2020	669120	1203 SE 2 Court - Himmarshee Canal	Force Main	16"	2" PVC riser broken	65,204	Y
9/26/2020	671423	203 SW 1 Avenue & SW 2 Street	Force Main	12"	Age	182,847	Y
10/27/2020	684208	Bayview and NE 17 Street	Force Main	16"	Pipe broken in lift station	4,000	N

Water & Sewer Master Plan 2017

Revenues Appropriated by City Commission

on 4.3.2018 (CAM #18-0336)	\$	200,000,000.00
Interest on Revenues	\$	4,547,778.64

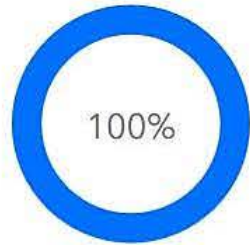
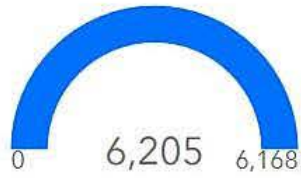
Total Appropriated Amount	\$	204,547,778.64
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Bond Funded Projects by Category	Total Budget Amount	Actuals spent to Date as of December 28, 2020	% Spent to Date as of December 28, 2020	Encumbrances as of December 28, 2020	Balance as of December 28, 2020
Finance	30,828,221.00	16,760,779.00	54.37%	1,239,613.32	12,827,828.68
Fiveash Upgrades	12,218,047.00	9,721,993.75	79.57%	1,264,864.94	1,231,188.31
I&I	31,320,597.00	12,164,344.45	38.84%	2,606,084.85	16,550,167.70
Master Plan/Report	10,173,957.64	8,126,981.87	79.88%	83,022.17	1,963,953.60
Peele Dixie Upgrades	867,000.00	763,323.57	88.04%	50,061.94	53,614.49
Sewer Basin	24,089,978.00	590,188.52	2.45%	1,542,411.55	21,957,377.93
Sewer Force main	26,780,814.00	12,260,871.68	45.78%	9,337,510.94	6,788,357.38
Watermain	68,269,164.00	43,541,076.68	63.78%	17,342,082.64	10,886,004.68
Grand Total	204,547,778.64	103,929,559.52	50.81%	33,465,652.35	72,258,492.77

Index Code / Project Title	Category	Project Status	Budget	Actuals as of December 28, 2020	% Spent as of December 28, 2020	Encumbrances	Remaining Balance as of December 28, 2020
FD495.01 WATER & SEWER MASTER PLAN 2017	Finance	Implementation	28,844,367.00	14,978,767.00	51.93%	1,224,438.32	12,641,161.68
FD496.01 WATER & SEWER REGIONAL MASTER PLAN 2017	Finance	Implementation	1,983,854.00	1,782,012.00	89.83%	15,175.00	186,667.00
P10814.495 CENTRAL NEW RIVER W/MAIN RIVER CROSSING	Fiveash Upgrades	On-Hold	1,632,562.00	95,641.44	5.86%	755,195.90	781,724.66
P10850.495 VICTORIA PARK A NORTH-SMALL WATERMAINS	Fiveash Upgrades	Bidding	4,435,773.00	4,386,556.93	98.89%	49,215.67	0.40
P11080.495 PORT CONDO SMALL WATER MAIN IMPROVEMENTS	Fiveash Upgrades	Construction	557,559.00	50,214.10	9.01%	57,881.65	449,463.25
P11563.495 VICTORIA PARK SEWER BASIN A-19 REHAB	Fiveash Upgrades	Construction	5,592,153.00	5,189,581.28	92.80%	402,571.72	(0.00)
P11566.495 RIO VISTA SEWER BASIN D-43 REHAB	I&I	Construction	3,568,391.00	2,245,213.07	62.92%	1,323,178.17	(0.24)
P11589.495 FIVEASH WTP DISINFECTION IMPROVEMENTS	I&I	Construction	17,328,046.00	840,330.09	4.85%	303,659.18	16,184,056.73
P11901.495 VICTORIA PK STH SM WATERMAINS IMPROVEMNT	I&I	Construction	5,149,658.00	5,064,434.24	98.35%	85,109.25	114.51
P12049.495 FLAGLER HEIGHTS SWR BASIN A-21 LATERALS	I&I	Construction	1,091,027.00	462,516.00	42.39%	628,510.66	0.34
P12055.495 BASIN A-18 SANITARY SWR COLL SYSTM REHAB	I&I	Project Initiation & Planning	4,183,475.00	3,551,851.05	84.90%	265,627.59	365,996.36
P12133.495 PUMP STN A-13 REDIRECTION E OF FEDERAL	Master Plan/Report	Project Initiation & Planning	478,014.00	478,013.50	100.00%	-	0.50
P12180.495 CROISSANT PARK SMALL WATER MAINS	Master Plan/Report	Project Initiation & Planning	3,060,125.00	2,822,718.37	92.24%	27,418.26	209,988.37
P12184.495 DAVIE BLVD 18" WM ABAN I-95 TO SW 9 AVE	Master Plan/Report	Master Plans & Report	2,075,500.00	297,344.25	14.33%	55,603.75	1,722,552.00
P12202.495 LIFT STATN D-11 FLOW ANALYSIS & REDESIGN	Master Plan/Report	Project Initiation & Planning	1,254,020.00	1,222,607.61	97.50%	-	31,412.39
P12319.495 EMERG REPAIR 30" FM - REPUMP TO GTL WWTP	Master Plan/Report	Project Initiation & Planning	2,697,298.64	2,697,298.64	100.00%	-	-
P12352.495 S MIDDLE RIVER FORCE MAIN RIVER CROSSING	Master Plan/Report	Project Initiation & Planning	609,000.00	608,999.50	100.00%	-	0.50
P12367.495 ASSET MANAGEMENT & CMOM PROGRAMS	Master Plan/Report	Construction	-	-	-	0.13	(0.13)
P12367.496 ASSET MANAGEMENT & CMOM PROGRAMS	Master Plan/Report	Master Plans & Report	-	-	-	0.03	(0.03)
P12368.495 SEWER CAPACITY ANLY FOR GRAVITY & FM	Master Plan/Report	Project Initiation & Planning	-	-	-	-	-
P12368.496 SEWER CAPACITY ANLY FOR GRAVITY & FM	Master Plan/Report	Project Initiation & Planning	-	-	-	-	-
P12375.495 PROG MGMT OF CONSENT ORDER PROJECTS	Peele Dixie Upgrades	Construction	752,000.00	658,460.25	87.56%	46,157.43	47,382.32
P12375.496 PROG MGMT OF CONSENT ORDER PROJECTS	Peele Dixie Upgrades	Design	115,000.00	104,863.32	91.19%	3,904.51	6,232.17
P12383.496 NE 25TH AVE FORCE MAIN REPLACEMENT	Sewer Basin	Construction	4,784,890.00	297,441.80	6.22%	551,531.73	3,935,916.47
P12384.496 NE 38TH ST 42" FM & NE 19TH AV 24" FM	Sewer Basin	Construction	11,096,690.00	199,251.72	1.80%	990,585.82	9,906,852.46
P12385.496 SE 10TH AV 48" FM REPL & 36" BYPASS	Sewer Basin	Master Plans & Report	18,326.00	18,326.00	100.00%	-	-
P12386.496 54" FM RPL SE 9TH/10TH AV & NEW PARALLEL	Sewer Basin	Bidding	6,072.00	6,072.00	100.00%	-	-
P12387.496 EFFLUENT MAIN REHABILITATION	Sewer Basin	Project Initiation & Planning	8,184,000.00	69,097.00	0.84%	294.00	8,114,609.00
P12388.495 NE 13TH ST 24" FORCE MAIN REPLACEMENT	Sewer Force main	Warranty	3,313,090.00	423,188.23	12.77%	2,889,901.77	-
P12389.495 18" FM RPL ACROSS NEW RVR FRM 9TH/ BIRCH	Sewer Force main	Construction	2,112,550.00	220,834.14	10.45%	1,891,714.46	1.40
P12390.495 16" FM ALONG LAS OLAS BLVD PHASE 2	Sewer Force main	Design	2,500,000.00	2,324,195.21	92.97%	135,955.04	39,849.75
P12391.495 BERMUDA RIVIERA SML WTRMN IMPROVEMENTS	Sewer Force main	Design	4,976,700.00	4,396,903.20	88.35%	421,127.20	158,669.60
P12395.495 PEELE DIXIE ELECTRICAL STUDIES	Sewer Force main	Finance	210,000.00	22,231.00	10.59%	43,355.00	144,414.00
P12396.495 PEELE DIXIE SURGE PROTECTION UPGRADES	Sewer Force main	Project Initiation & Planning	100,000.00	3,637.00	3.64%	28,150.00	68,213.00
P12399.495 FIVEASH WTP PCCP REPLACEMENT	Sewer Force main	Bidding	3,880,000.00	32,815.00	0.85%	-	3,847,185.00
P12400.495 PROSPECT WELLFIELD ELC STUDIES & TESTING	Sewer Force main	Design	185,000.00	1,168.00	0.63%	-	183,832.00
P12402.495 PEELE DIXIE WELLFIELD ELC STUD & TESTING	Sewer Force main	Bidding	150,000.00	12,808.00	8.54%	38,095.00	99,097.00
P12404.495 EXCAVATE & DISPOSE OF DRY LIME SLUDGE	Sewer Force main	Construction	4,600,000.00	4,228,973.31	91.93%	-	371,026.69
P12406.496 REDUNDANT FORCE MAIN FROM B-REPUMP	Sewer Force main	Project Initiation & Planning	10,377.00	10,377.00	100.00%	-	-
P12407.495 SUBACQUEOUS FM CROSSING REINSTATEMENT	Sewer Force main	Canceled	-	-	-	-	-
P12413.495 FM FROM PUMP STN D-35 TO D-36 UPSIZE	Sewer Force main	Construction	580,000.00	146,257.62	25.22%	359,214.78	74,527.60
P12414.495 GRAVITY PIPE IMPV TO DWNTWN COL SYSTM	Sewer Force main	Bidding	843,000.00	180,381.65	21.40%	583,373.35	579,245.00
P12415.495 PUMP STATION A-7 UPGRADE	Sewer Force main	Construction	2,031,862.00	241,426.81	11.88%	1,760,919.59	29,515.60
P12418.495 WTR & W/WTR D & C SYSTEM MAPPING	Sewer Force main	Project Initiation & Planning	-	-	-	-	-
P12419.495 FORCE MAIN ASSESSMENT	Sewer Force main	Project Initiation & Planning	-	-	-	-	-
P12419.496 FORCE MAIN ASSESSMENT	Sewer Force main	Project Initiation & Planning	-	-	-	-	-
P12456.495 SEWER BASIN D-40 REHAB	Sewer Force main	Project Initiation & Planning	169,237.00	6,831.51	4.04%	79,778.75	82,626.74
P12463.495 CORAL SHORES SML WATERMAIN IMPROVEMENTS	Sewer Force main	Project Initiation & Planning	1,118,998.00	8,844.00	0.79%	1,105,926.00	1,110,154.00
P12485.495 FIVEASH WTP FILTERS REHABILITATION	Watermain	Design	120,000.00	15,650.68	13.04%	104,349.32	-

P12566.496 REDUNDANT SEWER FM NORTH TO GTL WWTP	Watermain	Construction	24,725,379.00	17,626,490.20	71.29%	7,098,887.92	0.88
P12567.496 REDUNDANT SEWER FM SOUTH TO GTL WWTP	Watermain	Bidding	35,750,000.00	23,970,025.80	67.05%	10,138,845.40	5,141,128.80
P12569.495 NE 5TH STREET FORCE MAIN IMPROVEMENT	Watermain	Construction	1,928,910.00	1,928,910.00	100.00%	-	-
P12570.495 36TH STREET FORCE MAIN IMPROVEMENT	Watermain	Construction	309,875.00	-	0.00%	-	309,875.00
P12618.495 DOLPHIN ISLES B-14 SEWER BASIN REHAB	Watermain	On-Hold	365,000.00	-	0.00%	-	365,000.00
P12619.495 BAYVIEW DR 16" FM TO PUMP STATION B-14	Watermain	Construction	2,570,000.00	-	0.00%	-	2,570,000.00
P12620.495 LAS OLAS MARINA PUMP STATION D-31	Watermain	Bidding	2,500,000.00	-	0.00%	-	2,500,000.00
Grand Total			204,547,778.64	103,929,559.52	50.81%	33,465,652.35	72,258,492.77

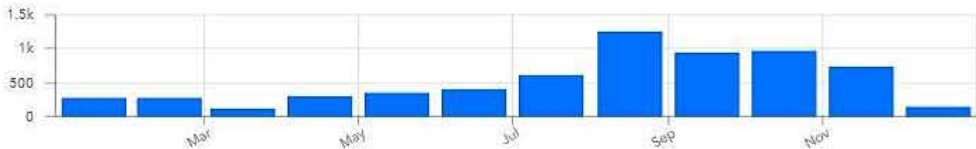
Completed Inspections YTD



Completed Inspections

119

in selected month



Completed Inspections by Month

Average Static Pressure YTD

70 PSI

Average Flow YTD

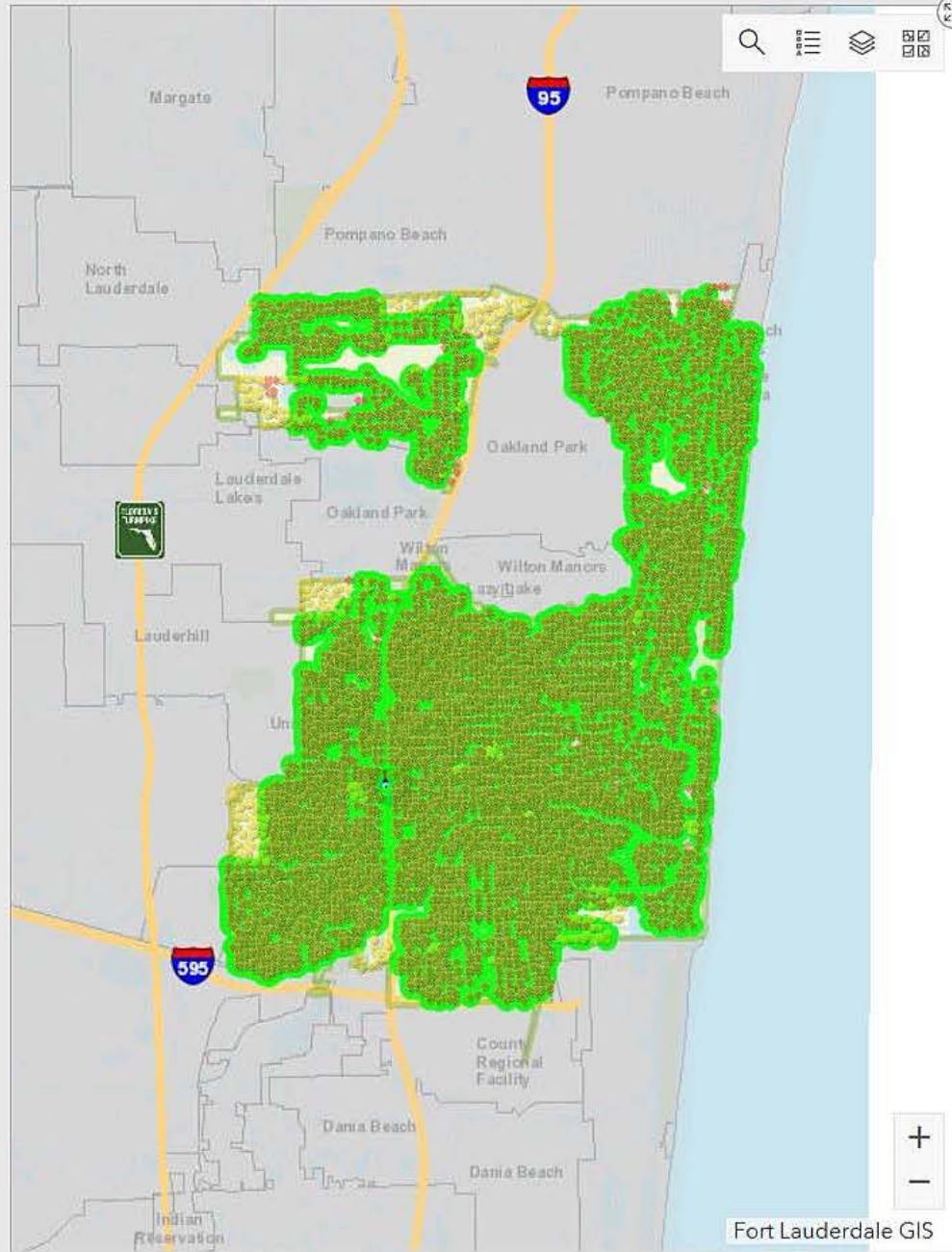
1,093 GPM

Hydrants <50 PSI

55

Hydrants <500 GPM

42



Fort Lauderdale GIS

0

Hydrants Out of Service

None



Fort Lauderdale GIS

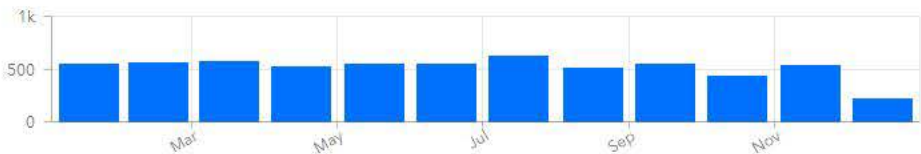
Completed Inspections YTD



Completed Inspections

218

in selected month



Completed Inspections by Month

Average Static Pressure YTD

72 PSI

Average Flow YTD

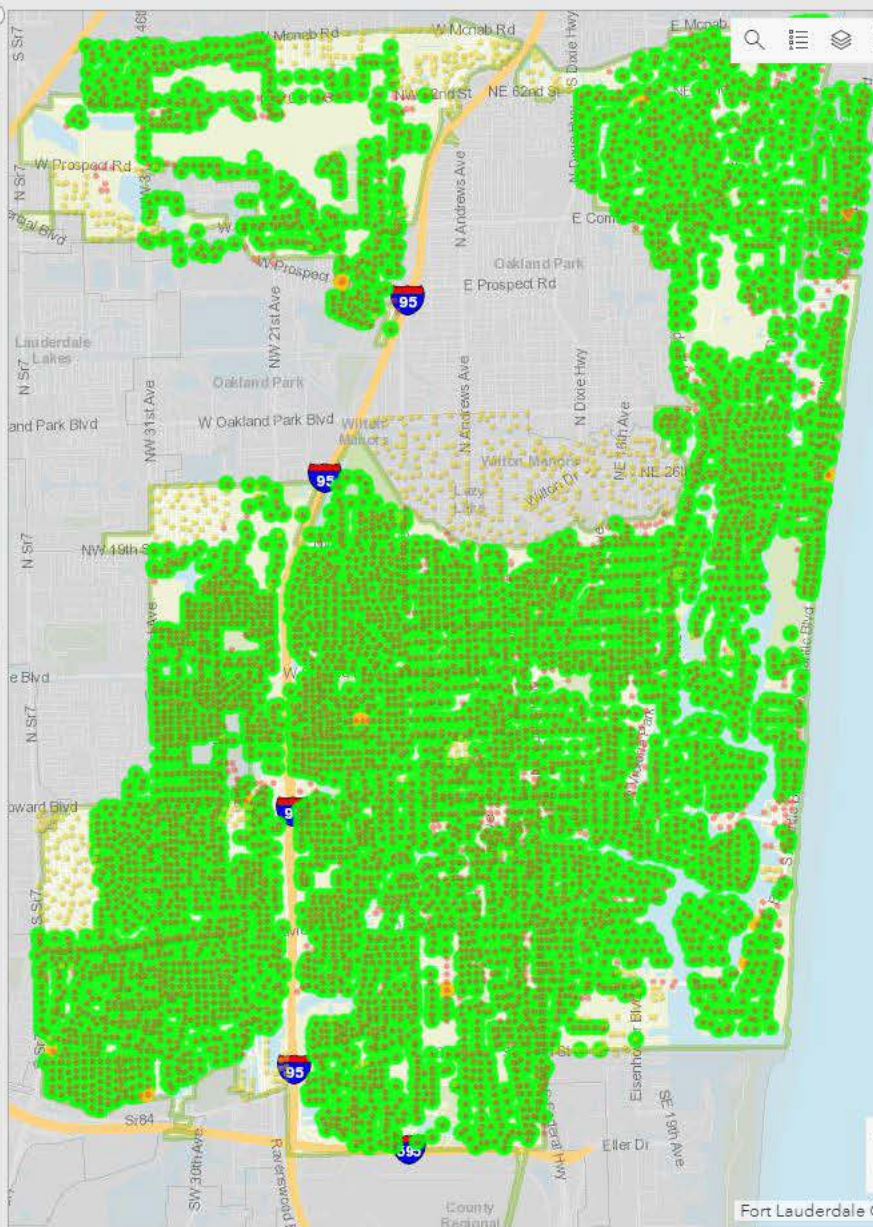
1,072 GPM

Hydrants <50 PSI

0

Hydrants <250 GPM

0

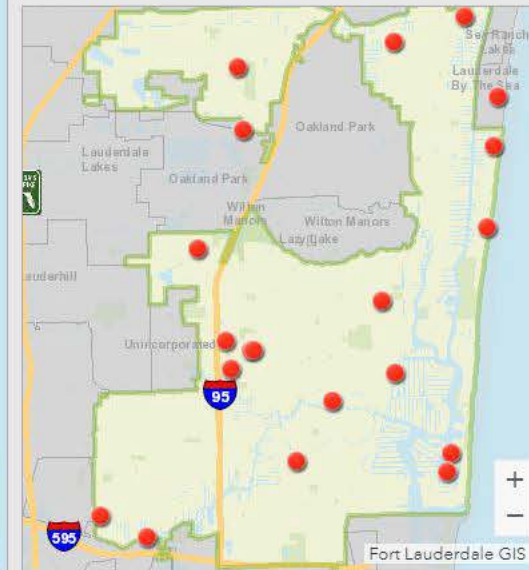


Fort Lauderdale GIS

20

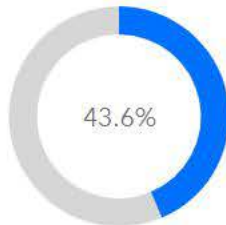
Hydrants Out of Service

- Mueller #5237, 3901 riverland rd Ⓞ2/10/2019
- Other #2454, 1224 E Lake dr Ⓞ5/23/2019
- Other #2451, 1534 E Lake dr Ⓞ5/23/2019
- Other #1887, 1330 NW 7th Street Ⓞ6/24/2019
- Other #1858, 812 NW 19. Av Ⓞ7/30/2019
- American #11438, 350 E Las Olas Blvd Ⓞ8/28/2019
- Mueller #1332, 1244 NE 16 Terr Ⓞ9/23/2019
- Mueller #934, 2424 n Atlantic Blvd Ⓞ9/24/2019
- Other #149, 1525 NW 15th Ave Ⓞ10/19/2019
- Mueller #10410, 4353 N OCEAN DR Ⓞ11/9/2019



Fort Lauderdale GIS

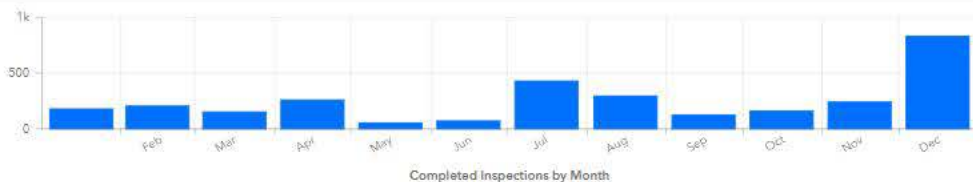
Completed Inspections YTD



Completed Inspections

834

in selected month



Average Static Pressure YTD

71 PSI

Average Flow YTD

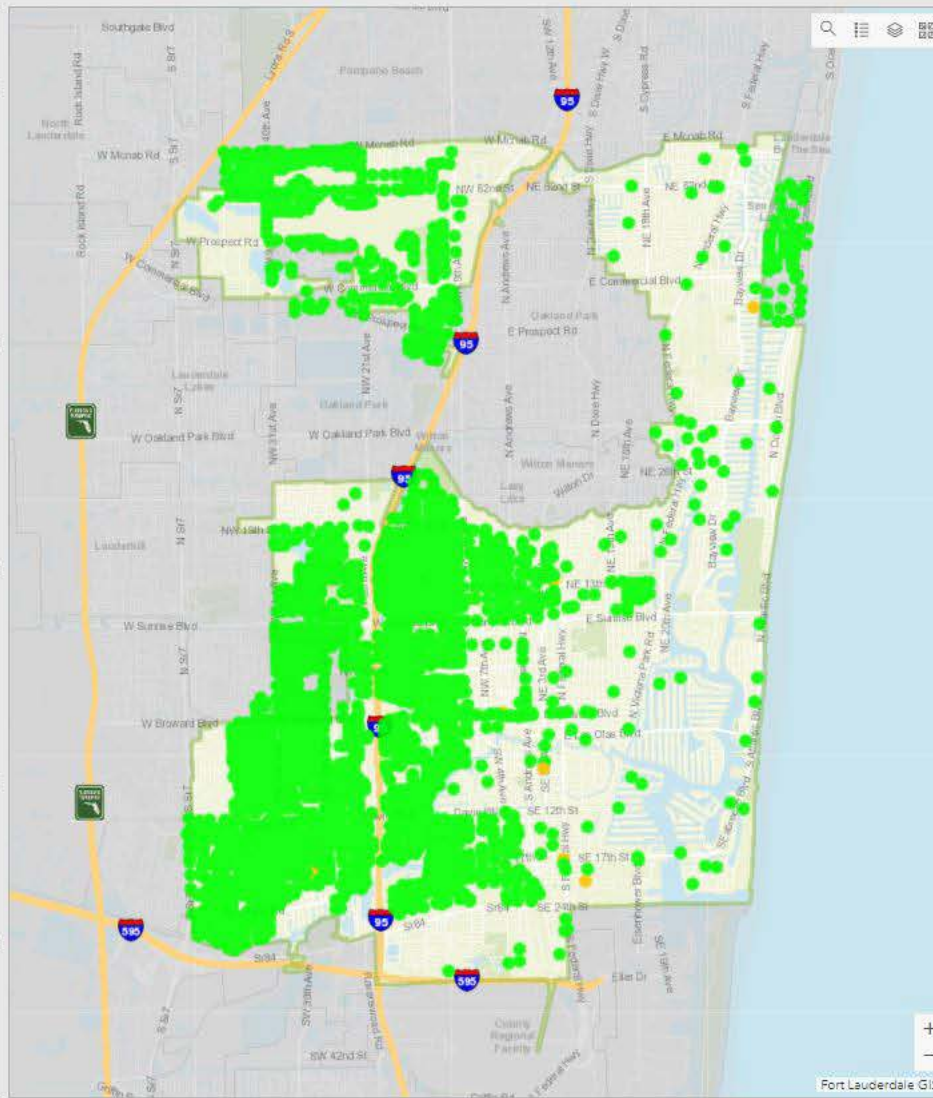
1,077 GPM

Hydrants <50 PSI

9

Hydrants <250 GPM

10



11

Hydrants Out of Service

- Other #14, 3120 nw 67ct @ 10/27/2020, 8:30:08 AM
- US #5164, 633 SE 3 Ave @ 11/4/2020, 4:41:33 AM
- American #10411, 921 SE 20th ST @ 11/25/2020, 3:48:57 AM
- US #7525, 1890 SW 28th Ter @ 12/2/2020, 10:25:04 AM
- Mueller #10478, 1701 S. Federale HWY @ 12/3/2020, 8:57:57 AM
- US #571, 1012 SW 22nd ST @ 12/8/2020, 10:32:19 AM
- American #9847, 3420 W Davie Blvd @ 12/17/2020, 6:49:33 PM
- Other #1472, 1144 NW 7th Terr @ 12/18/2020, 4:22:41 AM
- Mueller #2104, Broward Blvd & NW 4th ave @ 12/21/2020, 9:30:02 PM
- Other #1445, 526 ne 5th terr @ 12/22/2020, 6:17:37 AM
- Mueller #11056, 3090 ne 46 st @ 12/28/2020, 3:53:03 AM

