



CITY OF FORT LAUDERDALE

**DRAFT**  
**MEETING MINUTES**  
**CITY OF FORT LAUDERDALE**  
**INFRASTRUCTURE TASK FORCE ADVISORY COMMITTEE**  
**FORT LAUDERDALE EXECUTIVE AIRPORT**  
**RED TAILS CONFERENCE ROOM**  
**6000 NW 21 AVENUE, FORT LAUDERDALE, FLORIDA**  
**MONDAY, AUGUST 5, 2024 – 2:00 P.M. TO 4:00 P.M.**

**January-December 2024**

**Attendance**

Marilyn Mammano, Chair	P	7	0
Peter Partington, Vice Chair	P	4	3
Gerald Angeli	P	7	0
Gregory Barnett	P	4	0
Shane Grabski (arr. 2:10)	P	5	2
James LaBrie	P	7	0
Michael Lambrechts (arr. 2:07)	P	6	1
Marta Reczko	P	6	1
Roosevelt Walters	P	7	0
Ralph Zeltman	P	7	0

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

**Staff**

- Alan Dodd, Public Works Director
- Chris Bennett, Assistant Public Works Director – Strategic Support
- Omar Castellon, Assistant Public Works Director – Engineering
- Semele Williams, Senior Administrative Assistant
- Daniel Fisher, Senior Project Manager
- Brandy Leighton, Senior Project Manager/Special Engineer
- Franklin Torrealba, Principal in Charge of I&I Program
- J. Opperlee, Recording Secretary, Prototype, Inc.

**Communication to the City Commission**

**Motion** made by Vice Chair Partington, seconded by Mr. Walters, that the ITF supports and recommends funding for updating the Utility Strategic Master Plan in the 2025 budget. In a voice vote, the **motion** passed unanimously.

**1. Call to Order**

**i. Roll Call**

Chair Mammano called the meeting to order at 2:01 p.m. Roll was called and it was noted a quorum was present.

**ii. Approval of Agenda**

**Motion** made by Vice Chair Partington, seconded by Mr. Walters, to approve the Agenda. In a voice vote, the **motion** passed unanimously.

**iii. Approval of Previous Meeting Minutes – June 3, 2024**

**Motion** made by Mr. Walters, seconded by Mr. Angeli, to approve as written. In a voice vote, the **motion** passed unanimously.

**2. Old Business**

**i. Cityworks Update**

Mr. Barnett requested an overview of the Cityworks program, including its scope, who will use it, when initial data will be made available, and how that data will be used toward long-term planning in the future. Chris Bennett, Assistant Public Works Director (Strategic Support), explained that the program's goal is to have an asset management program, assisted by the CityWorks software, which will ultimately help with both the City's Capital Improvement Program (CIP) as well as maintenance.

Mr. Barnett asked which systems will be included in Cityworks. Mr. Bennett replied that the City's Stormwater Division has used Cityworks for almost two years, which means all its assets are in the geographic information systems (GIS) map. When the operating team is in the field, they update data for these assets as they perform the work. Due to software integration issues and delays, the Water Distribution team has not started working in the Cityworks system, however, they will begin using Cityworks by the end of this year, with similar responsibilities. The Sewer Operations team has been using Cityworks for over a year. There has also been a difficulty related to integration of water information with the City's billing software.

Mr. Lambrechts arrived at 2:07 p.m.

In addition to maintenance, the Cityworks system is also kept up-to-date on capital improvements. When developers make changes to water/sewer/stormwater infrastructure, and when the City works on CIP projects, updates are made to the GIS map. The goal is for as-built information to eventually be submitted electronically from consultants and contractors; however, at present these are converted to GIS format and entered into the Cityworks database by Public Works staff.

Mr. Barnett asked if seawall repairs will be part of the Cityworks system. Mr. Bennett confirmed this, adding that the goal is for all Public Works assets, including seawalls, roads, sidewalks, curbs, and gutters, to be included in the system. Other City

Departments, such as Parks and Recreation and Transportation and Mobility, also want their assets to be added to the system once it is fully functional.

Mr. Grabski arrived at 2:10 p.m.

Public Works Director Alan Dodd advised that work must be funded in order to be added to Cityworks. The City is able to fund the input of water, sewer, and stormwater into the system, but this has not been done for projects funded through the General Fund at this time.

Mr. Barnett asked if seawalls will be added to Cityworks as the next step. Mr. Bennett replied that a seawall assessment is currently underway to update the City's Seawall Master Plan. This includes the reassessment of the conditions and cap elevations of all City-owned seawalls. Although not all City seawalls are managed by Public Works, they will be added to the Cityworks database.

Mr. Bennett continued that all information currently in the GIS database has been entered into Cityworks. There is currently an ongoing effort in which a consultant is updating GIS information with as-built drawings. The consultant may edit, add, or delete assets as they work.

Mr. Barnett requested clarification of whether Cityworks data matches what Public Works Staff sees in the field. Mr. Bennett explained that in the field, Staff has encountered pipe sizes or locations that do not match what is on record. This is due in part to the backlog of as-built drawings that have not yet been uploaded to the system. He further clarified that most of the work done by Stormwater operations employees is cleaning and minor repairs. They are updating the system with new information when discrepancies are identified.

Mr. Barnett asked if the data gathered by Public Works employees could be used to identify areas of the City in which existing drainage is insufficient, such as places where the pipes are not large enough to handle the flow. Mr. Bennett stated that the Stormwater Master Plan includes a detailed model which is now being updated in advance of the next round of Stormwater Master Plan projects. This model assists in showing where there is or isn't existing infrastructure, as well as whether or not that infrastructure is undersized. The model shows many of the same issues, such as flooding in specific areas, that are reported by customers.

Mr. Dodd advised that the City is updating its model of the entire stormwater system as well as designs of vulnerable neighborhoods. This will allow the next wave of stormwater improvement projects to move forward.

Mr. Bennett stated that the Stormwater Master Plan helps Public Works determine which projects should be prioritized. Areas that experience major and/or recurring flooding are also included in prioritization planning. The projects dictated by the Master Plan are

determined by modeling as well as by historical flooding and resident complaints. The City has to prioritize which areas are addressed first.

Mr. Walters asked if there will be further in-depth discussion of seawalls, including how to encourage private property owners to improve or raise their seawalls. He pointed out that if only some of the City's seawalls are raised or improved, this will not be effective unless all structures are raised. Chair Mammano recalled that a City proposal which would have required private seawalls to be raised was unsuccessful in the past, as the City had not offered any assistance to private owners.

Mr. Grabski commented that the City has enacted an Ordinance addressing seawalls which is consistent with a Broward County Ordinance. Mr. Dodd noted that Fort Lauderdale's Ordinance acts as a model for other cities which wish to require a minimum elevation for seawalls. The County's Tidal Barrier Ordinance follows a similar format, but used an updated elevation based on the most recent projections by climate compacts.

Mr. Dodd continued that once water has overflowed a seawall and affects neighboring properties or the public right-of-way, this triggers Code Enforcement action. It was further clarified that seawall height must be raised to 4 ft. by the year 2030 and to 5 ft. by 2060. This is also consistent with the County's Ordinance.

Chair Mammano requested that a copy of the City's Seawall Ordinance be emailed to the Committee members for informational purposes. It was determined by consensus that more information on seawalls would be part of the next month's Agenda.

Mr. Barnett expressed concern that Cityworks is not yet tracking seawalls. Mr. Dodd advised that the City has seawall cap or height information; however, the City only manages or improves its own seawalls. Mr. Barnett asserted that this information is not the same as a full survey to determine seawall elevations, as the City does not have the right to enter private property and survey those structures. Chair Mammano reiterated that a seawall update would be placed on the next Agenda.

Vice Chair Partington asked if GIS information is accessible to the public. Mr. Bennett replied that it is not, although some of the information can be accessed through public records requests. This is because the City cannot guarantee the accuracy of the information, which creates liability. There are also security issues related to some aspects of the information.

Vice Chair Partington asked if GIS information is used when excavations are made. Mr. Bennett stated that the City's Utilities Operations Department includes locator teams: when a project enters the construction phase, they are required to follow state rules for locating the City's three underground utilities maintained in rights-of-way, which are water, sewer, and stormwater. Utilities are marked for both public and private projects, and Cityworks is used to generally or accurately identify their location.

Mr. Dodd advised that Cityworks is not an answer to all the City's mapping problems: it meets certain needs of the Department, such as knowing where infrastructure is located and tracking its size, materials, and condition. Cityworks is only one part of the information used in the field.

Mr. Barnett stated that in his experience, large data sets are no longer used when the user has no confidence in the quality of the data. He emphasized the importance of ensuring that data users can provide feedback that can improve its quality. Mr. Bennett explained that the users keep data up-to-date as they work on the system. This is part of the City's developing asset management program. He acknowledged that staffing must still be built up to meet this need.

Ms. Reczko asked if large infrastructure such as the new water treatment plant was included among the mapping of City assets. Mr. Bennett confirmed that City plants are in the process of being collected into Cityworks. The consultant responsible for addressing the backlog of as-built information has also surveyed major aspects of assets at the George T. Lohmeyer Wastewater Regional Treatment Plant. This information is also being added to Cityworks.

Ms. Reczko asked if the contractor of the new water treatment plant will provide a list of the assets that will be installed in the plant, as this could save the City a great deal of future work. Mr. Dodd replied that the project company will oversee the maintenance of the new plant using City employees and will hand their records over to the City. The City will have total access to this information at all times.

Mr. LaBrie stated that when Public Works employees provide information on seawalls at a later meeting, a representative of Code Enforcement should also be present.

Chair Mammano asked if Public Works has sufficient staff to gather information and enter it into the asset management system. Mr. Bennett replied that while there are several staff vacancies at present, funding is sufficient to proceed through at least the next five years. The City is actively seeking to fill the vacant positions, although the process is taking longer than expected. It can also be difficult to fill the positions with the salaries the City is able to pay.

Mr. Dodd noted that while there are existing vacancies, there are also contractors who are working to help the City fill these gaps. Both in-house and contract personnel are needed to fulfill the asset management system.

Chair Mammano requested that Dr. Nancy Gassman, Assistant Director of Public Works (Sustainability), as well as a representative of Code Enforcement, attend the next Committee meeting to provide an update on seawalls. She again requested that the Committee members be provided with copies of the City's seawall Ordinance.

## **ii. Water Treatment Plant Update**

Senior Project Manager Daniel Fisher gave a PowerPoint presentation on the new water treatment plant, on which work began in March 2023. At present, the project is roughly 40% complete. The site has been excavated to an elevation of zero, and the first foundation for the nanofiltration building has been poured.

Mr. Zeltman requested information on a change order addressing the new plant's ability to meet Category 5 hurricane standards. Mr. Fisher stated that a change order was issued in December 2023 to implement a concrete rather than a prefabricated metal building. This was done at the City's request and the City paid for the change. This also required the building to be enlarged slightly in order to bring other City assets into the facility.

Mr. Fisher continued that the project company recommended that the City enlarge some of its piping, pumps, and equipment to house more chemicals in order to meet water quality standards that minimize corrosion. Another recommendation was a pipe study. The concern was that the existing distribution system is suited to carrying water from the Fiveash Water Treatment Plant, but could result in lead corrosion when cleaner water is sent through the pipes.

Mr. Lambrechts requested additional information on the change order, asking if the City had previously approved a prefabricated building. This was confirmed, and it was noted that the proposed steel building was hurricane-rated would have met Code. As the project moved forward, and there was discussion of storing additional City assets, there were complaints from neighboring residents regarding the appearance of a steel building. These concerns were taken into consideration as part of the change order. The total cost of the change was \$3 million.

Mr. Fisher further clarified that the comprehensive agreement approved in February 2023 had specifically called for a facility able to withstand a Category 5 hurricane. This referred to the metal building proposed at that time.

Mr. Walters requested additional information on how cleaner water running through older pipes can create corrosion. Mr. Fisher explained that the primary concern is for lead corrosion: the City is responsible if lead leaches into water from homes, including older homes that may have lead service lines.

Chair Mammano recalled that residents were recently informed that the City is undertaking a City-wide pipe study, and requested more information on this study. Mr. Dodd stated that the original comprehensive agreement included studying the impacts of water from the new plant on the distribution system so the plant can ensure it is using the correct balance of chemicals. The City is aware that some adjustments will be needed to optimize the system. They have also recognized that the chemical balance of the water coming from the new plant could have negative effects on the existing water system if that system is not adjusted properly.

Vice Chair Partington asked if the City inspection would also include the materials used in pipes that extend into homes. Mr. Dodd replied that the inspection extends only as far as the meter box. Vice Chair Partington concluded that the email is unrelated to the new water treatment plant but is a separate requirement that can reveal information useful to the City.

Ms. Reczko asked if there is a target date for the results of the City's pipe study. Mr. Fisher replied that the City has initial results from the desktop study, although the actual pipe study has not yet been completed. The cost of the study is roughly \$6 million. Mr. Dodd advised that the study was part of the City's comprehensive agreement with the private partner.

Ms. Reczko asked if the City will also be required to pay for PFAS testing. Mr. Dodd replied that the proposal for this testing is estimated at \$4 million. He recalled that when the comprehensive agreement was negotiated, no interim rule on PFAS had been published, which meant the City did not know the required standard at that time. The study is required in order for the City to be certified as meeting PFAS regulations and must be incorporated into the agreement.

Ms. Reczko asked what other water treatments are recommended to meet PFAS standards. Mr. Dodd replied that in addition to nanofiltration, ion exchange can also be used to address PFAS. The new water treatment plant system the City will use combines 70% nanofiltration and 30% ion exchange. The comprehensive agreement was modified to ensure that the plant meets PFAS requirements.

Chair Mammano asked if the City can expect to recoup some funds through its participation in a lawsuit related to PFAS. Mr. Dodd replied that the City will recoup some of these dollars, although he could not estimate the overall amount, as the settlement will be apportioned based on PFAS levels and other considerations. The recovered funds will go into the project to offset some of its costs.

Mr. Fisher advised that the engineer's design estimate was \$3 million, and the project company's estimate was \$3.1 million.

Mr. Fisher continued that the project company is currently drilling one of the deep injection wells to a depth of approximately 3500 ft. The City's infrastructure obligations include electricity as well as the raw water line.

In January 2024, the City awarded an unsolicited proposal for the construction of a 48 in. water main from the new plant to Fiveash. The first phase of this construction process is complete and the next step will involve the pulling of pipe.

Mr. Zeltman asked if there has been consideration of installing a second pipe between the new plant and Fiveash as a redundancy. Mr. Fisher stated that the project company

plans to install a valve with two outlets and one of the raw water lines going to the Fiveash plant will be rehabilitated.

Ms. Reczko asked if the Fiveash plant will be decommissioned for water treatment and will serve only to send water to the new plant from ground storage tanks. Mr. Fisher confirmed that enabling Fiveash to pump water was another of the City's infrastructure obligations under enabling works. High-service pumps at Fiveash will need to be rehabilitated or replaced to push water into the distribution system.

Ms. Reczko requested information on plans for the Peele-Dixie Water Treatment Plant. Mr. Fisher replied that this plant will continue to operate, as it already uses nanofiltration.

Chair Mammano requested that the Committee be updated on the new water treatment plant on a quarterly basis. There was also brief discussion of how the Committee members may arrange for a "field trip" to view the new facility under construction. Mr. Dodd recommended that the Committee reach out to his office to schedule a visit.

### **iii. I&I Contract Update**

Brandy Leighton, Senior Project Manager/Special Engineer, and Franklin Torrealba, Principal in charge of the Inflow and Infiltration (I&I) program, provided the Committee with an update on this ongoing effort.

Mr. Torrealba stated that the program operates on the following four fronts:

- Manhole inspections: there have been inspections of roughly 9.5% of all manholes
- Smoke testing: this has been conducted on 14% of manholes in the sewer system and 217 defects have been identified
- Nitro isolation: identification of the sewer pipes into which water is flowing
- Testing to determine how much flow is coming into each pump station through I&I

Mr. Walters asked what types of defects have been identified thus far. Mr. Torrealba replied that these can include ground leaking, breaks, or age.

Vice Chair Partington requested more information on how smoke testing is done and what the City is looking for. Mr. Torrealba advised that this is done during the dry season so the water table does not affect results. Liquid smoke is blown into the system to identify leaks, illegal connections, or defects in pipes. The Police and the public are notified of the testing.

Chair Mammano asked if the number of linear feet that display problems requiring further investigation is typical. Mr. Torrealba replied that Fort Lauderdale's numbers are roughly average. Ms. Leighton explained that Public Works begins by examining basins that are projected to have the most I&I, which means they will see higher numbers at the beginning of the program than later.

Ms. Reczko commented that the lining of pipes not only addresses I&I but extends the useful life of pipes as well, which is a cost benefit. Mr. Torrealba stated that the City follows a cost-effective I&I protocol, which determines the most economical and best way to address the problem. This often includes cutting down on open construction which can disrupt traffic.

Chair Mammano requested more information on the financial overview through the next several fiscal years, including how much money is budgeted for I&I in each year. Mr. Torrealba replied that the first year of the program included activities such as smoke testing, public notification, and creation of a website.

Mr. Torrealba continued that the project is reflected in the proposed CIP for fiscal years (FY) 2025 through 2029 at an estimated total of \$66 million. Depending upon the amount of I&I reduced and the pipe conditions, more funds may be required to perform the actual work.

Chair Mammano observed that 25% of the work will have been completed by the end of 2025, funded in part through the Consent Order and partly through the CIP. Mr. Lambrechts recalled that the typical lifespan of a repaired basin is roughly 10 years. Ms. Leighton clarified that this depends upon the nature of the repair: lining can last for up to 50 years, although its warranty is only for 10 years.

Mr. Lambrechts asked what the City is doing to track the lifespan of the repairs it makes. Mr. Dodd replied that as part of the City's asset management program, Staff monitors the run times for all lift stations each month. When the stations begin averaging close to 10 hours of run time, this shows that there are either capacity or I&I issues. There will also be inspection and evaluation of the system feeding into the station to determine if additional relining or replacement is necessary.

Chair Mammano recalled that the Committee previously saw Staff's analysis of pump station run times in areas where these stations were repaired under the bond program. She asked if these facilities will be revisited for testing to ensure they continue working properly. Mr. Torrealba explained that progress is tracked using key performance indicators (KPIs) for each station as well as for the system as a whole.

Chair Mammano also noted that some I&I may be coming from pipes on private property rather than City pipes. Mr. Torrealba stated that the City hopes to determine what can be done to encourage homeowners to make repairs of their own lines.

Vice Chair Partington requested clarification of where the money for this project is coming from. Mr. Castellon replied that there is a remaining balance that has been budgeted in the CIP to address I&I.

Mr. Lambrechts commented that the program overview anticipates between six and nine million gallons per day (MGD), and asked how much removing this amount of flow would

affect the overall system. Mr. Dodd advised that roughly one MGD of additional development is added to the system each year, and up to 20 MGD going into the plant can be attributed to I&I.

Chair Mammano observed that the City will continue to approach its permit limit for MGD treated at the Lohmeyer plant, even with reductions in I&I. She asked what would happen when the City reaches that limit. Mr. Dodd replied that at present, the injection wells are a limiting factor. He acknowledged that if the City continues to grow, they will eventually reach a physical maximum and will have to consider ways to either increase the capacity of the plant itself or build a new plant.

Mr. Dodd continued that the injection wells are designed by capacity to hold 92 MGD, although the City is currently not physically able to inject that much water. Mr. Castellon also noted that the injection wells are being cleaned more often than they were in the past, which also helps with capacity.

Mr. Dodd stated that Public Works has requested \$3 million to update the Strategic Master Plan in the FY 2025 CIP. This will include a review of the entire system and help determine which improvements the City should plan for over the next 20 years. This will include a closer look at the Lohmeyer plant, the entire collection system, injection wells, and other factors.

Chair Mammano recommended that the Committee send a communication to the City Commission in support of Public Works' request for an updated Strategic Master Plan.

**Motion** made by Vice Chair Partington, seconded by Mr. Walters, that the ITF supports and recommends funding for updating the Utility Strategic Master Plan in the 2025 budget. In a voice vote, the **motion** passed unanimously.

It was determined that this **motion** would be sent as a communication to the City Commission.

A question was asked regarding whether the City or its consultant will establish the priority list for addressing I&I. Ms. Leighton replied that the consultant will make recommendations on prioritization.

Mr. Barnett requested an example of an inflow problem that would receive high prioritization. Ms. Leighton advised that the damage to some pipes is visible. Mr. Torrealba added that storms, heavy rainfall, flooding, and high tides result in a rising groundwater level, which contributes to damage. Mr. Dodd recalled that during a recent heavy rainfall event in June 2024, there was a noticeable difference of 30 to 40 MGD in the flows coming into the treatment plant.

Chair Mammano requested that copies of the I&I presentation be sent to the Committee members.

### **3. New Business**

#### **i. Vote on next ITF Meeting date Since September 2, 2024 is Labor Day**

**Motion** made by Vice Chair Partington, seconded by Mr. Walters, that the September meeting of the ITF be held on Monday, September 9. In a voice vote, the **motion** passed unanimously.

### **4. Public Works Update**

#### **ii. CIP Financial Report**

#### **iii. Water & Sewer Breaks Report w/Mapping**

### **5. General Discussion and Comments**

#### **i. Committee Members**

Mr. LaBrie stated that the City Commission has identified its FY 2025 priorities, which include:

- Infrastructure and resilience, specifically referring to planning for the future capacity of the Lohmeyer plant
- Enhancement of waterway quality
- Stormwater drain cleaning
- Expanding the utility undergrounding program
- Encouragement of commercial recycling, including passage of the “Green Your Routine” program
- Exploration of funding opportunities for dredging City canals
- Expedition of Ordinance creation for the tree canopy
- Passage of a trash Ordinance

Mr. LaBrie continued that while the Chair had presented the Committee’s recommendations regarding a new City Hall to the Commission, he did not see a copy of the final document. Chair Mammano requested that Staff send copies of the final recommendations to the Committee members.

Mr. LaBrie also recalled that at the July 7, 2024 City Commission meeting, the Urban Land Institute (ULI) gave a presentation on a new City Hall. He encouraged the Committee members to watch this presentation online.

Mr. LaBrie concluded that there had also been a presentation at the July 7 Commission meeting on the new Police Department building. A number of human errors were identified in the design of the building which have caused significant problems. Mr. Walters added that one outcome of the Police Department building presentation was that

cost overruns will be borne by the construction company and the party responsible for designing the building. It was emphasized that no City Department was responsible for the errors.

Mr. Walters also recalled that some time ago, the Committee had requested that whenever a project was not implemented or was delayed, any monies reserved for that project would be moved to another project of the same kind. He stated that the Committee had requested a printout of where these funds would be moved to, but have not seen these reports.

Mr. Dodd observed that the document the Committee is requesting is a budget amendment document. Twelve of these are issued each year, once per month, and the documentation includes a breakdown of how money is moved from one project to another. He confirmed that these can be provided to the Committee.

Mr. Walters also asked if minutes were taken at the June 4, 2024 joint workshop between the Committee and the City Commission. It was explained that the minutes of that workshop were part of the City Commission's minutes rather than the Board's. Mr. Walters stated that he would like to review these Commission minutes to ensure their accuracy. Senior Administrative Assistant Semele Williams advised that the minutes of the workshop were taken by a member of the City Clerk's Office.

Mr. Walters also requested that the Committee see the projected costs of a new City Hall as well as the current ongoing rent being paid by City Departments which were displaced by the 2023 flood event. Mr. Dodd replied that this request can be passed on to Assistant City Manager Laura Reese, who oversees the City's budget. Chair Mammano requested that Ms. Reese be invited to update the Committee at their next meeting.

Mr. Castellon concluded that Staff will look into the availability of the Committee's regular meeting space for the September 9, 2024 meeting.

## **ii. Public Comments**

None.

## **6. Adjournment – NEXT SCHEDULED MEETING DATE: To be announced**

There being no further business to come before the Committee at this time, the meeting was adjourned at 4:32 p.m.

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



# REIMAGINING CITY HALL

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CITY COMMISSION CONFERENCE MEETING

AUGUST 20, 2024



# COMPLETED

- Public Workshops
- Infrastructure Task Force
- Urban Land Institute
- Initial Commission Discussions



# CURRENT EFFORTS

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- Demolition of Existing City Hall
- Outreach to Other Municipalities
- Procurement Strategies & Processes
- Initial Space Planning
- Funding & Budgeting Planning



# NEXT STEPS

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## Onboard Owner's Representative

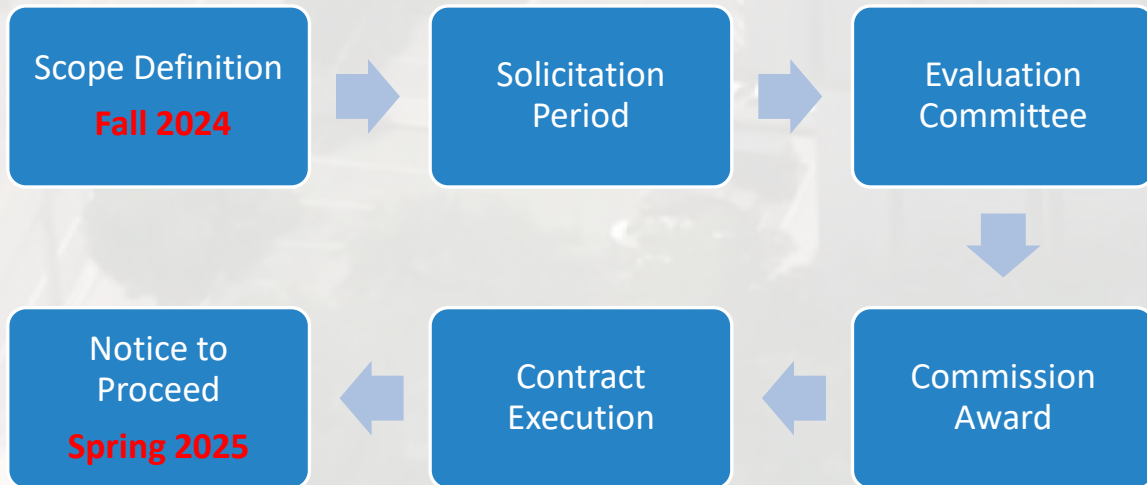
- Provide Subject Matter Expertise & Large Construction Project Experience
- Assist with Scope Definition & Solicitation
- Evaluate Proposal Responses and Provide Recommendations
- Oversee Construction Management, Permitting, Close-Out
- Improves Risk Mitigation & Conflict Resolution scenarios

## Design Criteria Package

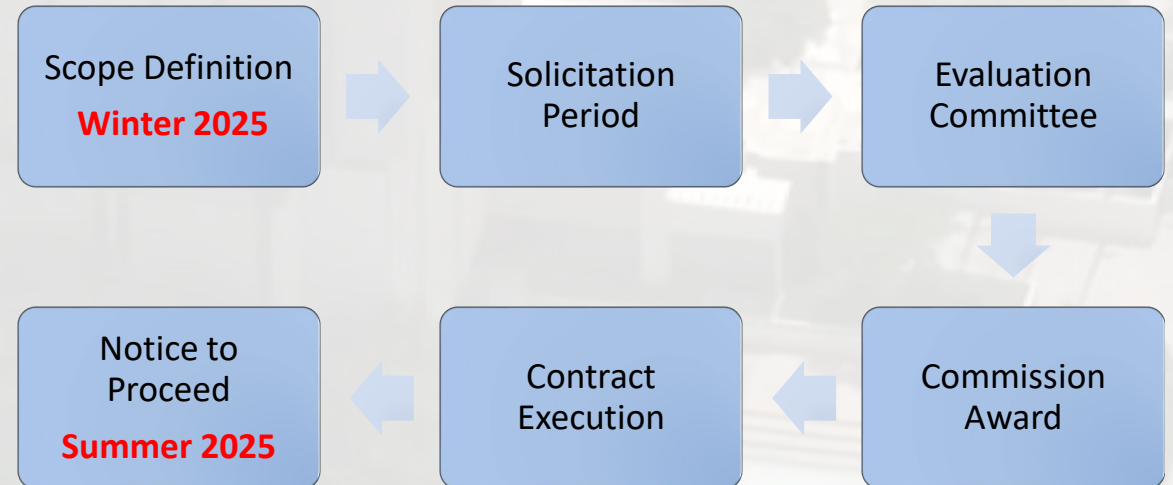
- Required by Florida Statute for any design/build contract
- Defines minimum requirements for the future building constructions and delivers 30% design plans
- Includes legal descriptions, survey, interior space requirements, material standards, schematic layouts, cost estimates, schedules, site requirements, utilities, and other code requirements.

# ANTICIPATED TIMELINES

## Owner's Representative Timeline



## Design Criteria Package Timeline





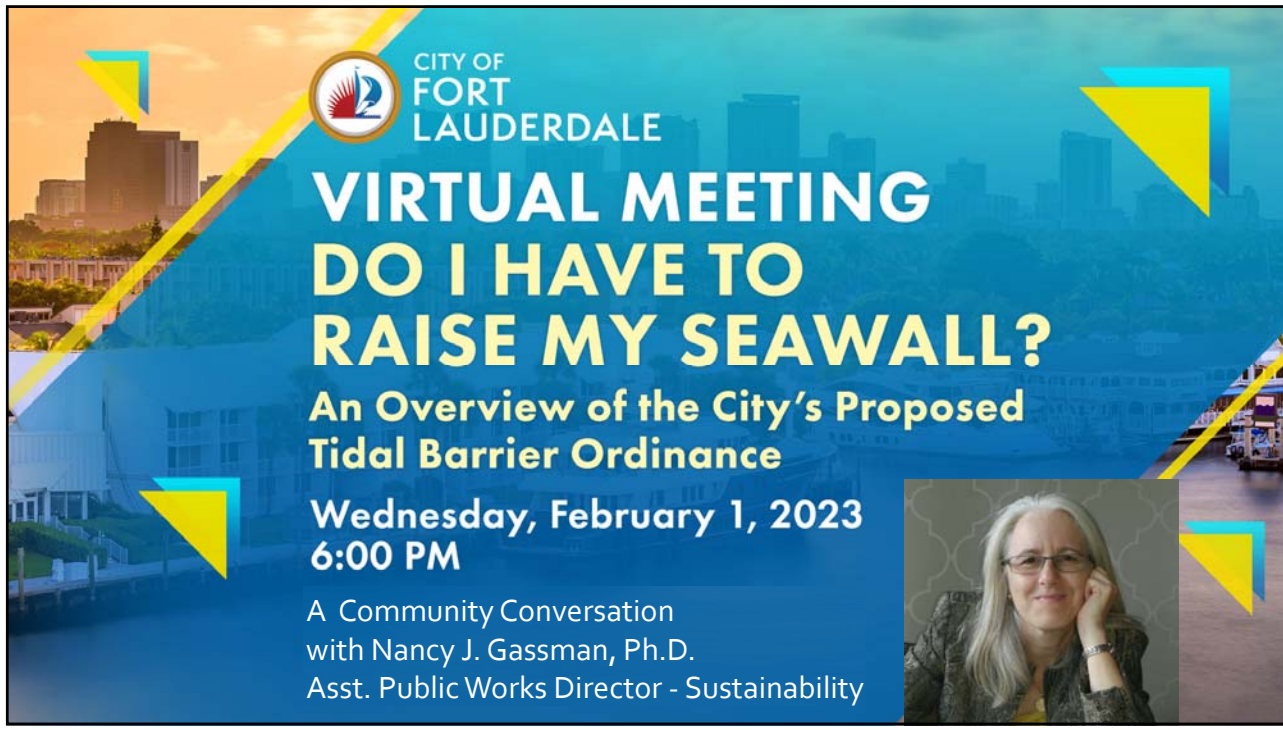
Hendricks Isle Seawalls before and after Elevation

**The City of Fort Lauderdale  
Tidal Barrier (aka Seawall) Ordinance**

Infrastructure Task Force  
Advisory Committee  
September 9, 2024

Nancy J. Gassman, Ph.D.  
Asst. Public Works Director -  
Sustainability

1




**CITY OF  
FORT  
LAUDERDALE**

**VIRTUAL MEETING  
DO I HAVE TO  
RAISE MY SEAWALL?**

**An Overview of the City's Proposed  
Tidal Barrier Ordinance**

**Wednesday, February 1, 2023  
6:00 PM**

A Community Conversation  
with Nancy J. Gassman, Ph.D.  
Asst. Public Works Director - Sustainability



2

## Why did the City modify the 2016 ordinance in 2022?

**USACE/Broward County Flood Risk Management Study for Tidally Influenced Coastal Areas**

Briefing for Climate Change Task Force  
Sep 04, 2018  
Fort Lauderdale, FL

Glenn B. Landers, P.E.  
Planning and Policy Division  
Jacksonville District

US ARMY CORPS OF ENGINEERS | Jacksonville District

**BROWARD COUNTY**

**Build It High, Keep It Dry**  
Regional Standards for Seawalls & Flood Barriers

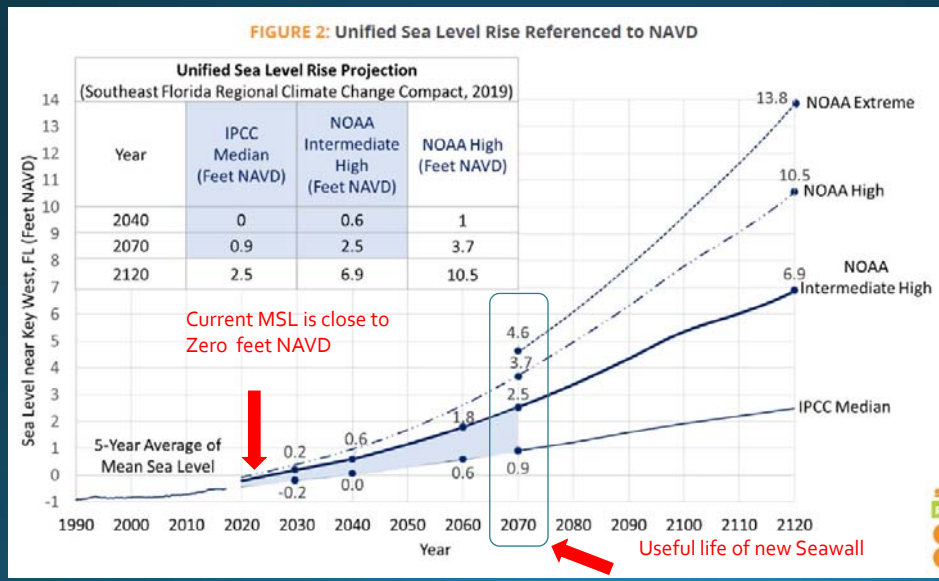
What is the right height for new seawalls?

### What is the new Regional Standard?

For all new tidal flood barriers and substantial improvements to shorelines and shoreline structures:  
**Minimum seawall and top-of-bank elevation = 5 feet by 2050**

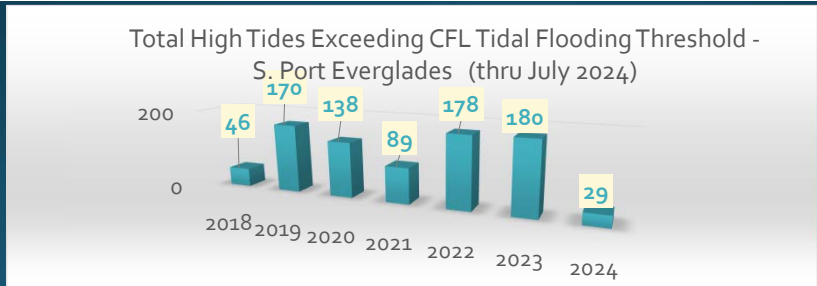
3

## 2019 Regional Sea Level Rise Projection (NAVD 88)



4

### What do higher seawalls contribute to community resilience?



5

### Why did the City change the ordinance? SUMMARY

- 1. Achieve compliance with objectives and policies in the City's adopted Comprehensive Plan
- 2. Achieve compliance with Policy 2.21.7 of the Broward County Comprehensive Plan
- 3. Adjust the 2016 seawall ordinance to reflect sea level rise projections the Commission adopted in 2020
- 4. Support reduction of tidal flooding
- 5. Contribute to improving community resilience



6

## What were the major ordinance changes?

ULDR Section 47-19.3 – Boat slips, docks, boat davits, hoists and similar mooring structures

ULDR Section 47.19.13 - Resiliency Standards for Tidal Flood Protection

ULDR Section 47.39.A.1.b General Provisions

City of Fort Lauderdale Code of Ordinances Section 8-91 - Mooring Structures

- Establishes terms, phrases, words for definition and interpretation purposes of this section;
- Extends the elevation requirement from only seawalls to all tidal flood barriers;
- Requires a minimum elevation of five (5) feet National American Vertical Datum (NAVD88) for new or substantially repaired tidal barriers;
- Allows for structures permitted before Jan 1, 2035 to be built at four (4) feet NAVD88 but they must be designed to be elevated to five (5) feet NAVD88 by Jan 1, 2050;
- (continued)...

7

## What were the major ordinance changes?

- Establishes a maximum elevation for tidal barriers related to the base flood elevation (BFE) of the property or 6 feet which ever is lower;
- Requires tidal structures built where no previous seawall existed to provide habitat enhancement at the waterward face of the bulkhead or seawall;
- Encourages incorporation of living shoreline features;
- Provides for the City Engineer's ability to issue a waiver from the top elevation requirement for waterfront properties containing a principal structure with a habitable finished floor elevation of less than 4.0 feet NAVD88; and

(continued)...

8

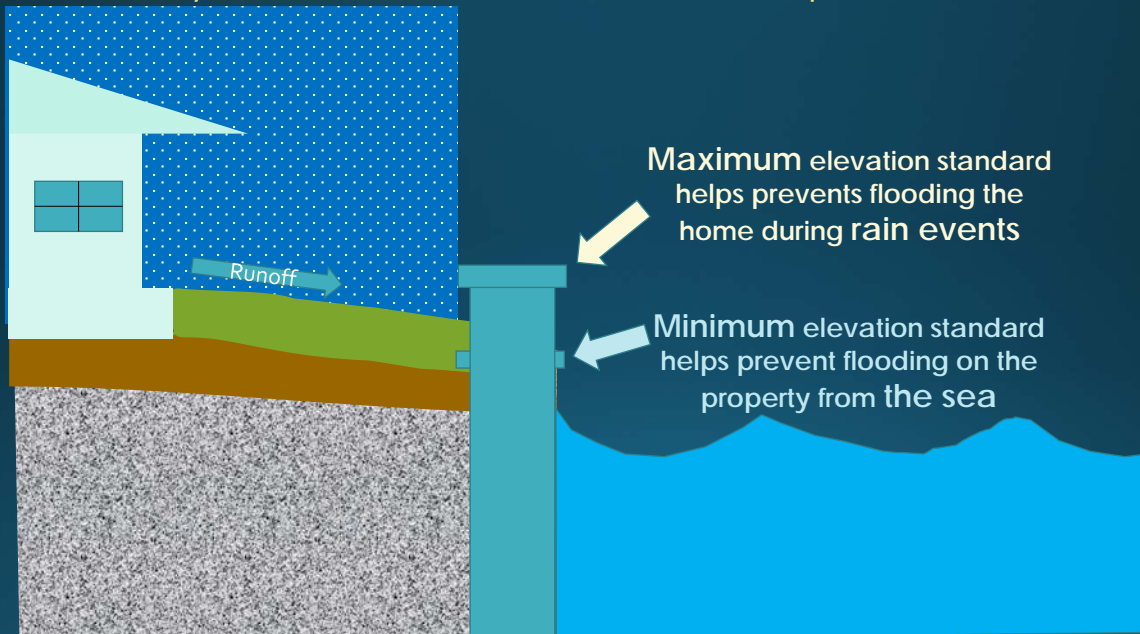
## What were the major ordinance changes?

- Required disclosure in contracts for sale of real estate upon adoption of this ordinance.

**"THIS REAL ESTATE IS LOCATED IN A TIDALLY INFLUENCED AREA. THE OWNER MAY BE REQUIRED BY COUNTY OR MUNICIPAL ORDINANCE TO MEET MINIMUM TIDAL FLOOD BARRIER ELEVATION STANDARDS DURING CONSTRUCTION OR SUBSTANTIAL REPAIR OR SUBSTANTIAL REHABILITATION OF SEAWALLS, BANKS, BERMS, AND SIMILAR INFRASTRUCTURE OR WHEN REQUIRED TO ABATE NUISANCE FLOODING."**

9

## Why is there a maximum and a minimum top elevation?



10

## Do I **HAVE** to raise my seawall?

### ONLY IF....

1) The owner is installing a **new** seawall/tidal barrier

OR

2) The owner comes in for a seawall repair permit and the **substantial repair threshold (50%)** is triggered

OR

3) if cited;

- The owner is cited for having a seawall/ tidal barrier in disrepair;
- The owner is cited for allowing tidal waters entering their property to impact others or the public right of way.

11

## Do I **HAVE** to raise my seawall...

- If I currently have a seawall on my property?
  - Only if it meets one of the three criteria
- If I buy a new house with a seawall?
  - Only if it meets one of the three criteria
- If my seawall is low?
  - Only if it meets one of the three criteria
- By a specific date?
  - Only if it meets one of the three criteria

12

### IF I am cited, do I **HAVE** to raise my seawall...

- Not necessarily but you must put an effective tidal barrier in place to address tidal trespass off your property.

### What if I can't afford a new seawall?

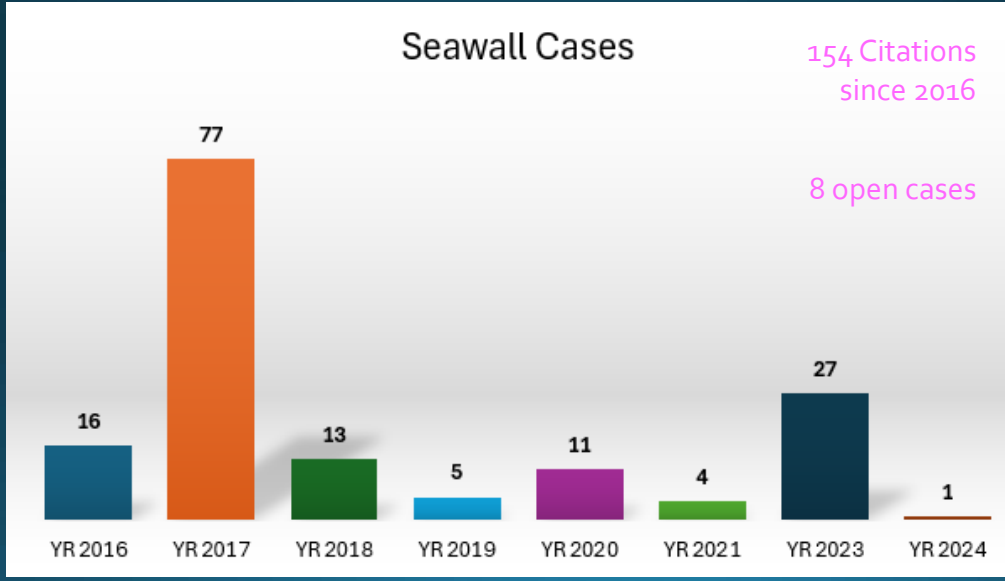
- The City views seawall citations like any other Code citation. The property owner must come into compliance or risk being fined or a lien being placed on the property.

### What funding is available for private seawalls improvements?

- Only a few examples exist of public or grant dollars for private seawalls.

13


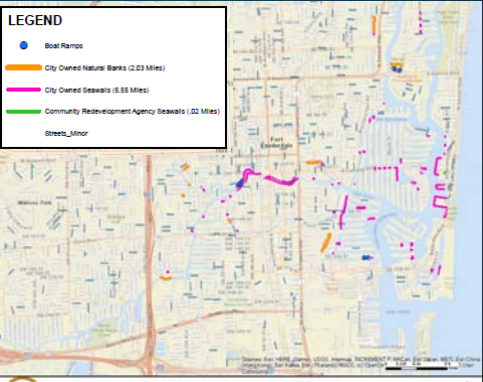
### Code Cases – Tidal Barrier (Seawall) Ordinance



14

## City Seawall Improvements

1. Completed
  1. Cordova Road
  2. Isle of Palm
  3. Hendricks Isle (2 seawalls)
  4. Merle Fogg Park
  5. SE 10<sup>th</sup> Street
  6. Las Olas Boulevard (4 seawalls)
  
2. Pending
  1. Riverwalk – Andrews to SE 3<sup>rd</sup> Ave (Design)
  2. Sebastian
  3. Seville
  4. SE 8<sup>th</sup> Street
  
3. Future
  1. Solar Plaza (Seawall #17)
  2. Aurelia and Poinciana
  3. Riverwalk
  4. Delmar Place
  5. Others – Included in Stormwater Master Plan Phase I
  6. Others – Under Review by City Seawall Master Plan Phase II

CITY OF FORT LAUDERDALE OWNED SEAWALLS & NATURAL BANKS

15

# QUESTIONS

## The City of Fort Lauderdale Tidal Barrier (aka Seawall) Ordinance

Infrastructure Task Force Advisory Committee  
September 9, 2024

16

# SEAWALL REPLACEMENT PROGRAM

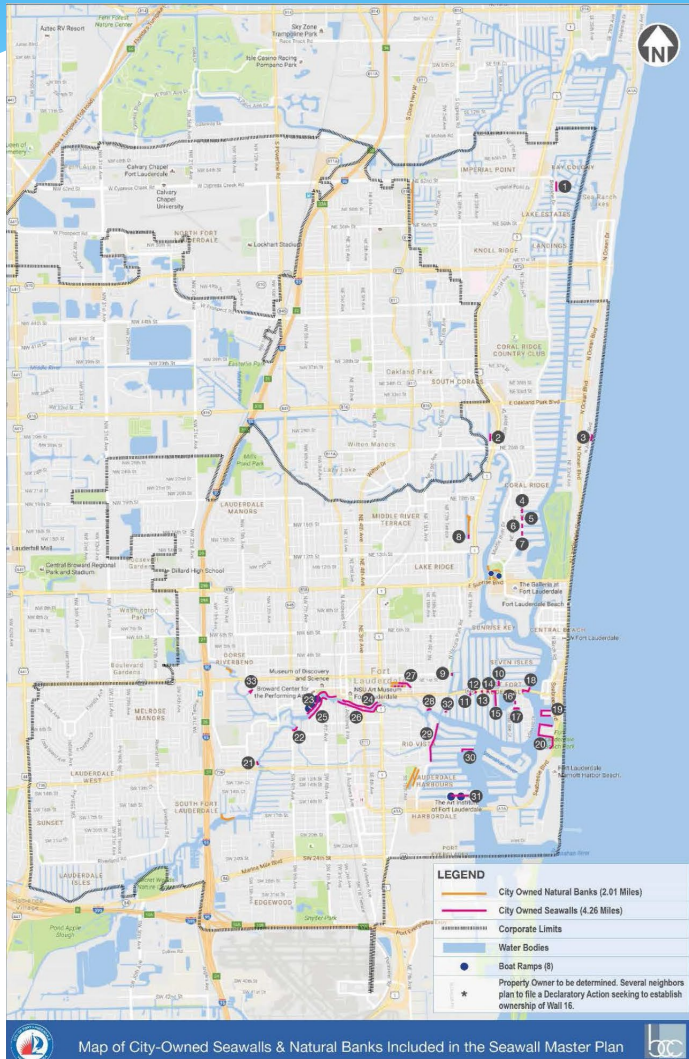
INFRASTRUCTURE TASK FORCE PRESENTATION

September, 2024



CITY OF FORT LAUDERDALE

# Seawall Assessment Study



- The seawall assessment study was performed by BCC Engineering, Inc.
- The assessment consisted of 35 (4.41 miles) of city owned seawalls.
- The final report was completed on February 5, 2018.
- The assessment consisted of limited visual inspections, prioritization of seawalls for replacement/repair and general cost estimates for the repairs.
- The City is currently undergoing a second seawall assessment study, that will re-evaluate the condition of all seawalls in public r/w and the ones within City facilities, such as parks.



# SEAWALL MASTERPLAN ASSESSMENT

TABLE 2.5 – WALL VULNERABILITY\* (Reference Figure 1 for seawall locations)

Wall	When Overtopped	Raising Required	When Addressed**	Funds Encumbered	Requiring Funding	Comments	Common Name
1	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	Top priority. 0-5 Yr overtopping, deficiencies, portions failing.	Bayview Dr. at Bay Colony
2	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	Top priority. 0-5 Yr overtopping, deficiencies, majority has failed.	Budget Inn Property
3	N/A	N/A	6-10 Yr	6-10 Yr	6-10 Yr	Deficiencies and exposure (beach) warrant 6-10 Yr replacement.	Loggerhead Park
4	0-5 Yr	0-5 Yr	6-10 Yr	6-10 Yr	6-10 Yr	No record of currently overtopping. Deficiencies warrant 6-10 Yr replacement.	Bayview Dr. north of NE 17th St.
5	0-5 Yr	0-5 Yr	6-10 Yr	6-10 Yr	6-10 Yr	No record of currently overtopping. Deficiencies warrant 6-10 Yr replacement.	Bayview Dr. north of NE 16th St.
6	0-5 Yr	0-5 Yr	6-10 Yr	6-10 Yr	6-10 Yr	No record of currently overtopping. Deficiencies warrant 6-10 Yr replacement.	Bayview Dr. north of NE 15th St.
7	16-20 Yr	11-15 Yr	6-10 Yr	6-10 Yr	6-10 Yr	Deficiencies warrant 6-10 Yr replacement.	Bayview Dr. north of NE 14th St.
8	2036+	2036+	6-10 Yr	6-10 Yr	6-10 Yr	Deficiencies warrant 6-10 Yr replacement.	Lake Melva north of Ford Dealer
9	0-5 Yr	0-5 Yr	11-15 Yr	11-15 Yr	11-15 Yr	Lower risk location. Projected as overtopping, but no record of overtopping.	Victoria Park
10	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	Top priority. Deficiencies and high-profile location.	Seven Isles Dr. at Del Mar Pl.
11	16-20 Yr	11-15 Yr	0-5 Yr	0-5 Yr	0-5 Yr	Top priority. Deficiencies govern when wall is addressed.	City Pump Station
12	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	High priority. High profile location along critical east-west roadway.	E. Las Olas Blvd. east of Lido Dr.
13	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	High priority. High profile location along critical east-west roadway.	E. Las Olas Blvd. east of San Marco Dr.
14	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	High priority. High profile location along critical east-west roadway.	E. Las Olas Blvd. east of Coral Way
15	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	Top priority. Currently overtopping. High profile location.	Isle of Palms Dr.
16	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	Top priority. Currently overtopping. High profile location.	SE 25th Ave.
17	0-5 Yr	0-5 Yr	6-10 Yr	6-10 Yr	6-10 Yr	Mid-priority. Not currently overtopping. Available funds may bump to 0-5 Yr.	SE 5th St.
18	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	Top priority. Condition and high profile location along Las Olas Blvd.	E. Las Olas at ICWW
19	16-20 Yr	16-20 Yr	0-5 Yr	0-5 Yr	0-5 Yr	Deficiencies warrant 0-5 Yr repair prior to raising 16-20 Yr.	Swimming Hall of Fame
20	11-15 Yr	11-15 Yr	11-15 Yr	11-15 Yr	11-15 Yr	Lower priority. Good condition and overtopping 11-15 Yr.	Bahia Mar
21	6-10 Yr	0-5 Yr	6-10 Yr	6-10 Yr	6-10 Yr	0-5 Yr overtopping but no overtopping noted. Low risk (park) location.	Coontie Hatchie Landings Park
22	11-15 Yr	6-10 Yr	6-10 Yr	6-10 Yr	6-10 Yr	Minor 6-10 Yr overtopping. Low risk (park) location. Recently rehabilitated.	Lewis Landing Park
23	0-5 Yr	0-5 Yr	6-10 Yr	6-10 Yr	6-10 Yr	No record of currently overtopping. Partial repair/raising.	Riverwalk North west of CSX
24	0-5 Yr	0-5 Yr	6-10 Yr	6-10 Yr	6-10 Yr	No record of currently overtopping. Partial repair/raising.	Riverwalk North east of CSX
25	0-5 Yr	0-5 Yr	6-10 Yr	6-10 Yr	6-10 Yr	No record of currently overtopping. Partial repair/raising.	SW 5th Ave.
26	0-5 Yr	0-5 Yr	6-10 Yr	6-10 Yr	6-10 Yr	No record of currently overtopping. Partial repair/raising.	Riverwalk South
27	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	Currently overtops.	Richard Mancuso Greenway
28	0-5 Yr	0-5 Yr	6-10 Yr	6-10 Yr	6-10 Yr	No record of currently overtopping. Partial repair/raising.	Colee Hammock Park
29	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	Top priority. Currently overtopping and structural deficiencies. High profile.	Cordova Rd.
30	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	Currently overtops. High profile.	SE 10th St.
31	0-5 Yr	0-5 Yr	6-10 Yr	6-10 Yr	6-10 Yr	No record of currently overtopping. Replace 6-10 Yr.	Cox's Landing Boat Launch
32	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	Currently overtopping. High profile.	Mola Ave.
33	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	No record of currently overtopping, however survey indicates overtopping.	Sailboat Bend Preserve
34	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	No record of overtopping. Survey indicates overtopping. High profile location.	Barcelona Dr. East of NE 26th Terrace
35	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	0-5 Yr	No record of overtopping. Survey indicates overtopping. High profile location.	SE 8th St.

Replaced  
Replaced  
Replaced  
Replaced

Replaced  
Replaced

Replaced

\*Timeframes are based on Work Program Windows in absence of detailed Vulnerability Analysis and uncertainties/variability in SLR projections.

\*\*Wall Vulnerability (overtopping) may not govern when wall is addressed. See "Comments" for clarification.




# SEAWALL PRIORITY LIST



## SEAWALL REPLACEMENT PROGRAM

Project Number	Project Description/Address	Length (LF)	Current Balance	FY23	FY24	FY25	FY26	FY27	FY28	FY29 and Beyond	Total	Fund	Notes	District
P11906	MOLA	25	NA								\$ 50,000.00	331	COMPLETE	2
P12034	Cordova Seawall	2200	NA								\$ 7,000,000.00	331	COMPLETE	2
P12014	Isle of Palms Seawall	900	NA								\$ 3,000,000.00	331	COMPLETE	2
P12695	Hendricks Isles Seawalls	320	\$ 1,300,000.00								\$ 1,300,000.00	331	COMPLETE	2
P12718	Las Olas Seawall East of Lido	90		\$ 375,000.00							\$ 375,000.00	331	COMPLETE	2
P12718	Las Olas Seawall West of Lido	90		\$ 375,000.00							\$ 375,000.00	331	COMPLETE	2
P12718	Las Olas Seawall East of San Marco	90		\$ 375,000.00							\$ 375,000.00	331	COMPLETE	2
P12718	Las Olas Seawall East of Coral Way	90		\$ 375,000.00							\$ 375,000.00	331	COMPLETE	2
P12718	SE 10th Street	400		\$ 2,000,000.00							\$ 2,000,000.00	331	COMPLETE	4
P12726	Merle Fogg	130		\$ 1,300,000.00							\$ 1,300,000.00	331	COMPLETE	2
P12549	Sebastian Central Beach	65			\$ 1,000,000.00	\$ 1,000,000.00					\$ 2,000,000.00	331	DESIGN	2
P12549	Seville Central Beach	65			\$ 1,000,000.00	\$ 1,000,000.00					\$ 2,000,000.00	331	DESIGN	2
P12330	Seven Isles at Del Mar	300				\$ 3,000,000.00					\$ 3,000,000.00	331	UNFUNDED	2
P12330	SE 8th Street Seawall	600				\$ 2,500,000.00					\$ 2,500,000.00	331	UNFUNDED	4
P12330	Jurelia and Poinciana Seawall/Idlewy	400				\$ 3,000,000.00					\$ 3,000,000.00	331	UNFUNDED	2
P12330	Solar Plaza/SE 5th Street	250				\$ 2,000,000.00					\$ 2,000,000.00	331	UNFUNDED	2
P12330	Himmarshee Canal Seawall	2300					\$ 10,000,000.00				\$ 10,000,000.00	331	UNFUNDED	2
P12330	Bayview North of 17 Street	150						\$ 1,000,000.00			\$ 1,000,000.00	331	UNFUNDED	1
P12330	Bayview North of 16 Street	150						\$ 1,000,000.00			\$ 1,000,000.00	331	UNFUNDED	1
P12330	Bayview North of 15 Street	150						\$ 1,000,000.00			\$ 1,000,000.00	331	UNFUNDED	1
P12330	Bayview North of 14 Street	150						\$ 1,000,000.00			\$ 1,000,000.00	331	UNFUNDED	1
P12330	Bayview Colony	500							\$ 3,000,000.00		\$ 3,000,000.00	331	UNFUNDED	1
P12330	Victoria Park								\$ 1,500,000.00		\$ 1,500,000.00	331	UNFUNDED	2
NA	Remaining 11 Seawalls	<2500								\$ 10,000,000.00	\$ 10,000,000.00	331	UNFUNDED	2
<b>Total</b>				\$ 1,300,000.00	\$ 4,800,000.00	\$ 2,000,000.00	\$ 12,500,000.00	\$ 10,000,000.00	\$ 4,000,000.00	\$ 4,500,000.00	\$ 10,000,000.00	\$ 59,150,000.00		

## Since 2019 the following seawalls have been replaced:

- \* Isle of Palms (900 LF, \$3,000,000)
  - \* Mola (50 LF, \$50,000)
  - \* Cordova Seawall (2200 LF, \$7,000,000)
  - \* Hendricks Isles (2 walls) (320 LF, \$1,300,000)
  - \* Merle Fogg (130 LF, \$1,300,000)
  - \* Las Olas Isles Seawalls (4 walls) (360 LF, \$1,500,000)
  - \* SE 10<sup>th</sup> Street (400 LF, \$2,000,000)
- 
- \* Total LF replaced: **4360 LF**
  - \* Total Cost: **\$16,150,000**

---

## Remaining seawalls ranked as “High Priority/ 0-5 years” for replacement by the 2018 assessment report:

- \* Total Combined Length: **\$7,500 LF**
- \* Total Combined Cost: **\$20,000,000 to \$30,000,000**

# Seawall Replacement Specifications and Benefits

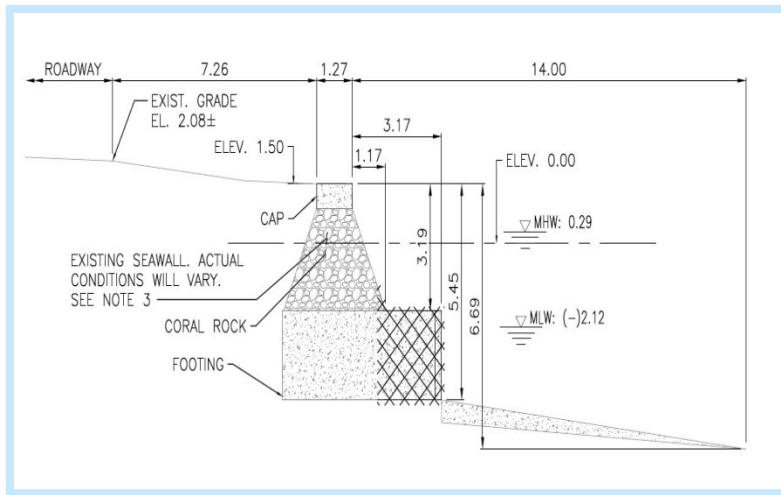


CITY OF FORT LAUDERDALE

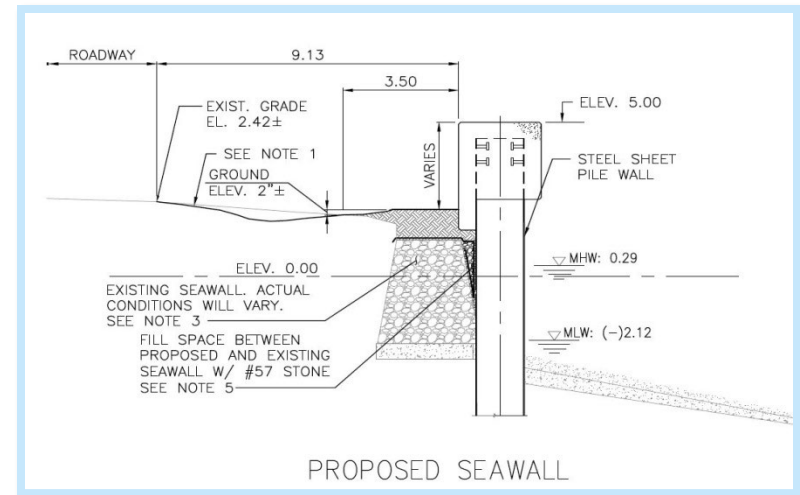


# TYPICAL CROSS-SECTION (LOOKING SOUTH)

## Existing

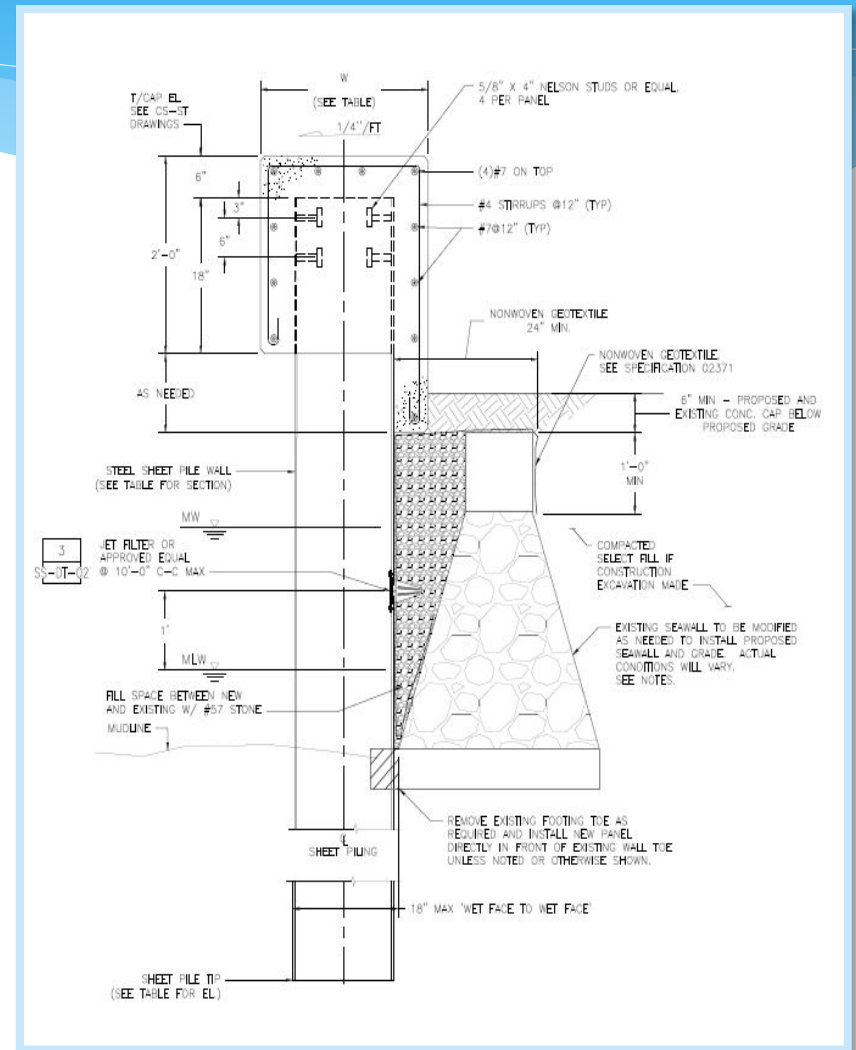


## Proposed

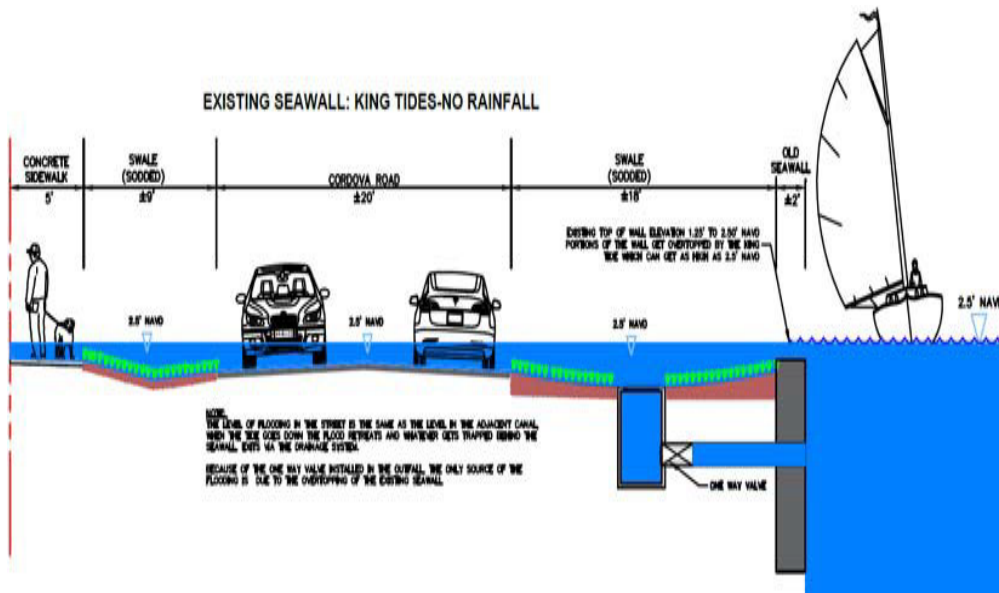


# CONSTRUCTION SPECIFICATIONS

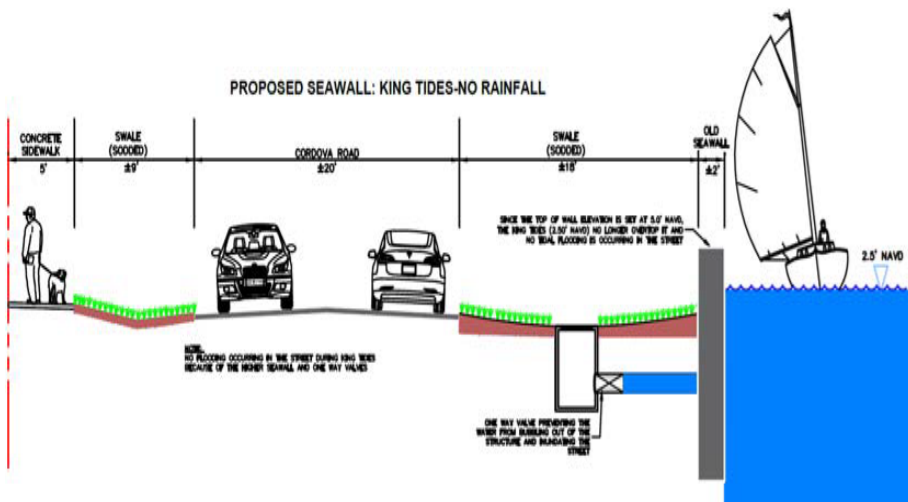
- \* Seawall elevation (top of concrete cap) – 5.0' NAVD
  - Approximately 3.5 feet higher than existing seawalls
  - NAVD – datum used to determine base flood elevations
- \* Steel sheet pile
  - 28 feet in length
  - Coated for protection against corrosion
    - Urethane zinc primer
    - Polyamine epoxy
- \* Concrete cap
  - 26 in wide x 24 in height
  - Will look like a concrete wall from roadside



# PRE DEVELOPMENT CONDITION



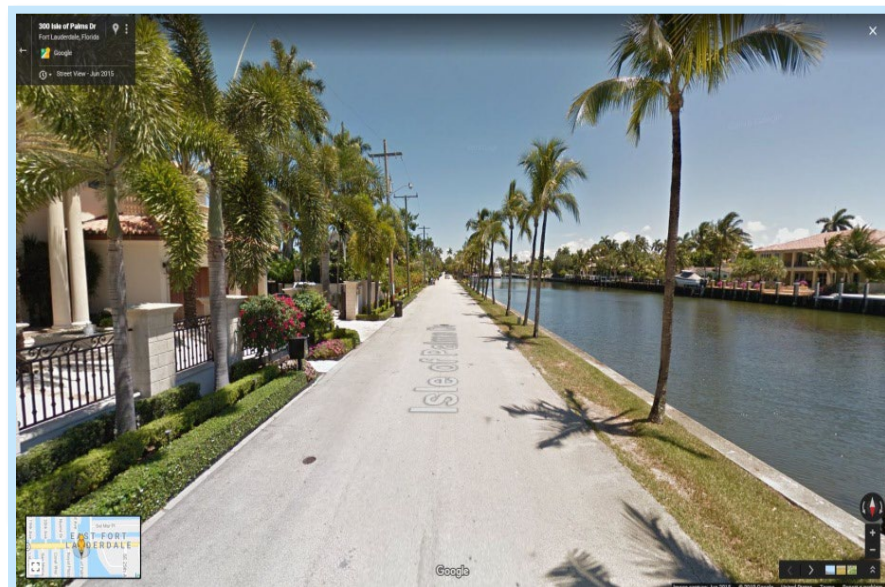
# POST DEVELOPMENT CONDITION



# ISLE OF PALMS DRIVE (LOOKING SOUTH)

Before

After



# BENEFITS TO THE RESIDENTS

- \* Minimizes tidal flooding and protects adjacent properties from storm surge
- \* Improved pedestrian and vehicular traffic/ provides safe access
- \* Protects the adjacent roadway from deterioration
- \* Improved local right-of-way drainage
- \* New roadway surface (driving) course
- \* Help maintain property value
- \* Protect existing infrastructure by replacing deteriorated seawall
- \* Swale width to increase by a minimum of 1.5 feet

# QUESTIONS?

- \* Public Works Engineering Division contacts:

Rares Petrica, P.E.  
Senior Project Manager – (PW-Eng)  
[rpetrica@fortlauderdale.gov](mailto:rpetrica@fortlauderdale.gov)  
954-828-6270

**Water & Sewer Bond Expenditures Summary  
as of 08/20/2024**

Bond Funded Projects by Category	Budget	Actuals	% Spent to Date	Commitments	Encumbrances	Remaining Balance
Finance	23,595,311	22,162,535	94%	-	659,487	773,289
Fiveash Upgrades	23,490,125	10,805,371	46%	(658,000)	4,388,325	8,954,428
GTL Upgrades	15,527,725	1,604,892	10%	197,002	3,358,288	10,367,544
I&I	40,619,275	15,215,298	37%	181,123	120,827	25,102,027
Master Plan/Report	2,109,625	1,495,753	71%	-	427,515	186,357
Peele Dixie Upgrades	648,546	97,125	15%	-	-	551,421
Sewer Basin	1,821,149	1,383,387	76%	103,775	29	333,959
Sewer Force main	251,975,956	96,233,275	38%	5,356,000	76,075,270	74,311,411
Watermain	37,353,901	20,330,060	54%	-	760,489	16,263,352
<b>Grand Total</b>	<b>397,141,614</b>	<b>169,327,695</b>	<b>43%</b>	<b>5,179,900</b>	<b>85,790,230</b>	<b>136,843,789</b>

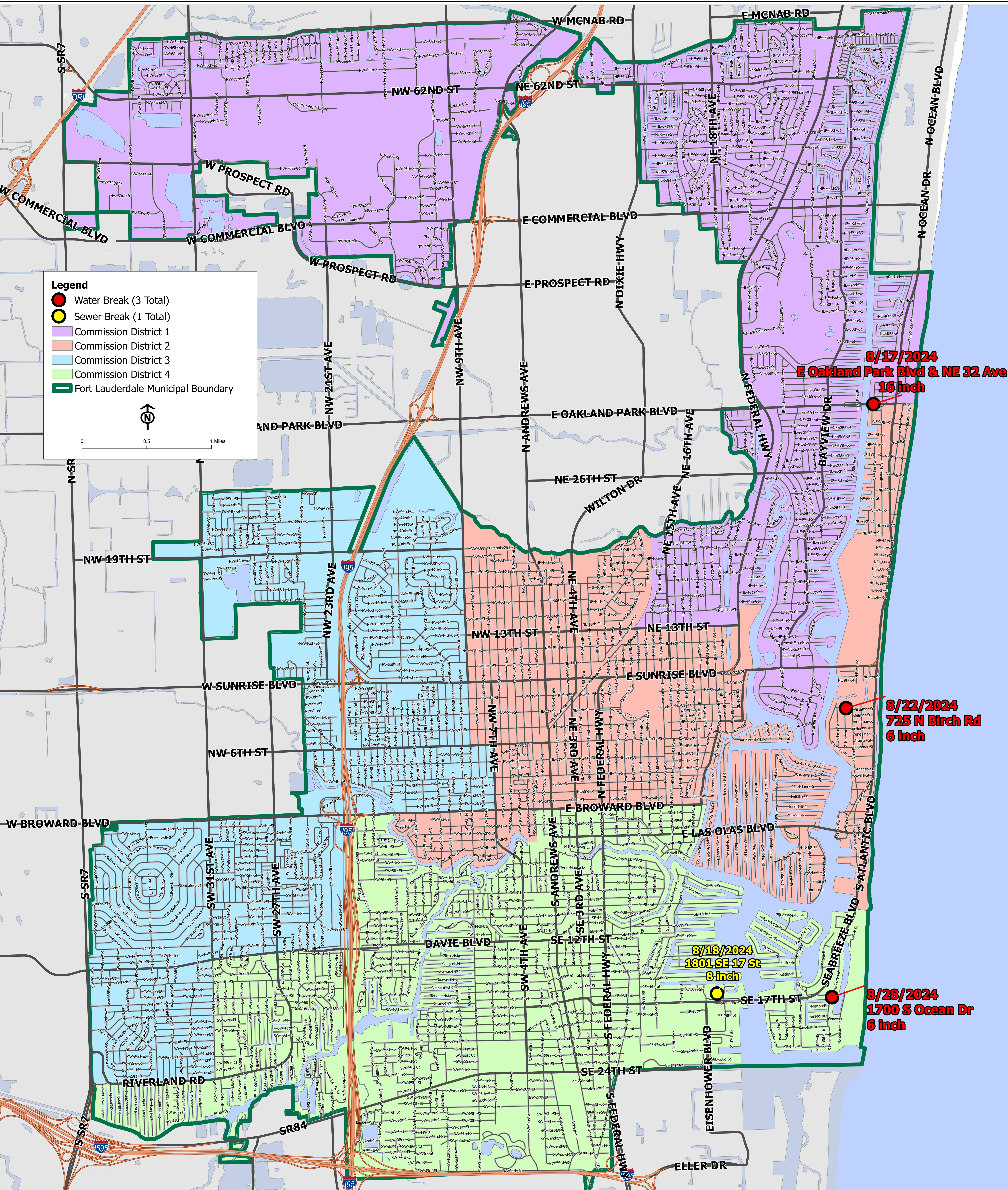
Index Code / Project Title	Category	Project Status	Budget	Actuals	% Spent to Date	Commitments	Encumbrances	Remaining Balance
FD495.01 WATER & SEWER MASTER PLAN 2017	Finance	Implementation	21,611,457	20,238,843	94%	0	659,487	713,127
FD496.01 WATER & SEWER REGIONAL MASTER PLAN 2017	Finance	Implementation	1,983,854	1,923,692	97%	0	0	60,162
P10814.495 CENTRAL NEW RIVER W/MAIN RIVER CROSSING	Watermain	Construction	1,364,926	1,148,588	84%	0	151,875	64,462
P10850.495 VICTORIA PARK A NORTH-SMALL WATERMAINS	Watermain	Warranty	4,435,773	4,434,668	100%	0	0	1,105
P11080.495 PORT CONDO SMALL WATER MAIN IMPROVEMENTS	Watermain	Close-Out	932,320	915,442	98%	0	0	16,878
P11465.495 17TH ST CAUSEWAY - LARGE WATER MAIN REPLACEMENT	Watermain	Design	5,205,708	15,926	0%	0	0	5,189,782
P11563.495 VICTORIA PARK SEWER BASIN A-19 REHAB	I&I	Design	5,832,153	5,783,483	99%	53,558	6	-4,895
P11566.495 RIO VISTA SEWER BASIN D-43 REHAB	I&I	Design	4,268,936	4,268,921	100%	0	14	1
P11589.495 FIVEASH WTP DISINFECTION IMPROVEMENTS	Fiveash Upgrades	Construction	15,430,120	2,742,293	18%	-658,000	4,357,625	8,988,203
P11887.495 NW SECOND AVE TANK RESTORATION	Fiveash Upgrades	Construction	40,000	40,000	100%	0	0	0
P11901.495 VICTORIA PK STH SM WATERMAINS IMPROVEMNT	Watermain	Warranty	5,149,658	5,142,772	100%	0	0	6,886
P11991.495 DOWNTOWN SEWER BASIN PS A-7 REHABILITATION	I&I	Design	2,000,000	298,587	15%	127,565	0	1,573,848
P12049.495 FLAGLER HEIGHTS SWR BASIN A-21 LATERALS	I&I	Construction	1,318,983	980,844	74%	0	120,794	217,345
P12055.495 BASIN A-18 SANITARY SWR COLL SYSTM REHAB	I&I	Design	3,883,475	3,883,462	100%	0	13	0
P12133.495 PUMP STN A-13 REDIRECTION E OF FEDERAL	Sewer Force main	Complete	478,014	478,014	100%	0	0	0
P12180.495 CROISSANT PARK SMALL WATER MAINS	Watermain	Complete	2,822,718	2,822,718	100%	0	0	0
P12184.495 DAVIE BLVD 18" WM ABAN I-95 TO SW 9 AVE	Watermain	Hold	297,692	297,692	100%	0	0	0
P12202.495 LIFT STATN D-11 FLOW ANALYSIS & REDESIGN	Sewer Basin	Complete	1,224,358	1,224,358	100%	0	0	0
P12214.495 INFILTRATION AND INFLOW PROGRAM	I&I	Master Plan & Report	23,315,728	0	0%	0	0	23,315,728
P12319.495 EMERG REPAIR 30" FM - REPUMP TO GTL WWTP	Sewer Force main	Complete	2,697,299	2,697,299	100%	0	0	0
P12352.495 S MIDDLE RIVER FORCE MAIN RIVER CROSSING	Sewer Force main	Finance	609,000	609,000	100%	0	0	0
P12367.495 ASSET MANAGEMENT & CMOM PROGRAMS	Master Plan/Report	Project Initiation Planning	0	0	-	0	0	0
P12367.496 ASSET MANAGEMENT & CMOM PROGRAMS	Master Plan/Report	Project Initiation Planning	0	0	-	0	0	0
P12368.495 SEWER CAPACITY ONLY FOR GRAVITY & FM	Master Plan/Report	Project Initiation Planning	0	0	-	0	0	0
P12368.496 SEWER CAPACITY ONLY FOR GRAVITY & FM	Master Plan/Report	Project Initiation Planning	0	0	-	0	0	0
P12375.495 PROG MGMT OF CONSENT ORDER PROJECTS	Master Plan/Report	Project Initiation Planning	1,462,500	1,034,866	71%	0	425,339	2,295
P12375.496 PROG MGMT OF CONSENT ORDER PROJECTS	Master Plan/Report	Project Initiation Planning	115,000	112,594	98%	0	2,175	230
P12383.495 NE 25TH AVE FORCE MAIN REPLACEMENT	Sewer Force main	Design	12,889,764	2,162,586	17%	0	4,457,688	6,269,490
P12383.496 NE 25TH AVE FORCE MAIN REPLACEMENT	Sewer Force main	Design	5,642,266	2,121,475	38%	0	3,514,119	6,672
P12384.496 NE 38TH ST 42" FM & NE 19TH AV 24" FM	Sewer Force main	Project Initiation Planning	31,189,144	5,928,747	19%	0	24,637,880	622,517
P12385.496 SE 10TH AV 48" FM REPL & 36" BYPASS	Sewer Force main	Cancelled	18,326	18,326	100%	0	0	0
P12386.496 54" FM RPL SE 9TH/10TH AV & NEW PARALLEL	Sewer Force main	Cancelled	6,072	6,072	100%	0	0	0
P12387.496 EFFLUENT MAIN REHABILITATION	Sewer Force main	Design	49,274,618	4,064,492	8%	0	43,025,195	2,184,931
P12388.495 NE 13TH ST 24" FORCE MAIN REPLACEMENT	Sewer Force main	Warranty	3,313,090	3,025,556	91%	0	0	287,534
P12389.495 18" FM RPL ACROSS NEW RVR FRM 9TH/ BIRCH	Sewer Force main	Complete	2,112,550	2,105,749	100%	0	0	6,801
P12390.495 16" FM ALONG LAS OLAS BLVD PHASE 2	Sewer Force main	Complete	2,410,943	2,410,943	100%	0	0	0
P12391.495 BERMUDA RIVIERA SML WTRMN IMPROVEMENTS	Watermain	Complete	4,424,433	4,424,433	100%	0	0	0
P12393.495 FIVEASH ELEC SYSTM REPLACEMENT (2015-20)	Fiveash Upgrades	Design	37,521	37,521	100%	0	0	0

Index Code / Project Title	Category	Project Status	Budget	Actuals	% Spent to Date	Commitments	Encumbrances	Remaining Balance
P12395.495 PEELE DIXIE ELECTRICAL STUDIES	Peele Dixie Upgrades	Master Plan & Report	63,133	63,133	100%	0	0	0
P12396.495 PEELE DIXIE SURGE PROTECTION UPGRADES	Peele Dixie Upgrades	Construction	100,000	33,992	34%	0	0	66,008
P12399.495 FIVEASH WTP PCCP REPLACEMENT	Fiveash Upgrades	Complete	33,511	30,379	91%	0	0	3,132
P12400.495 PROSPECT WELLFIELD ELC STUDIES & TESTING	Master Plan/Report	Project Initiation Planning	185,000	1,168	1%	0	0	183,832
P12402.495 PEELE DIXIE WELLFIELD ELC STUD & TESTING	Master Plan/Report	Complete	47,670	47,670	100%	0	0	0
P12404.495 EXCAVATE & DISPOSE OF DRY LIME SLUDGE	Fiveash Upgrades	Warranty	4,228,973	4,228,973	100%	0	0	0
P12406.496 REDUNDANT FORCE MAIN FROM B-REPUMP	Sewer Force main	Cancelled	10,377	10,377	100%	0	0	0
P12407.495 SUBACQUEOUS FM CROSSING REINSTATEMENT	Sewer Force main	Cancelled	0	0	-	0	0	0
P12410.495 PUMP STATION C-1 REPLACEMENT	Sewer Force main	Project Initiation Planning	620,000	47,166	8%	0	0	572,834
P12412.495 PUMP STATIONS A-16 UPGRADE	Sewer Force main	Construction	3,000,000	3,053,660	102%	0	135	-53,795
P12413.495 FM FROM PUMP STN D-35 TO D-36 UPSIZE	Sewer Force main	Complete	517,445	517,445	100%	0	0	0
P12414.495 GRAVITY PIPE IMPV TO DWNTWN COL SYSTM	Sewer Force main	Hold	3,335,370	193,227	6%	0	0	3,142,143
P12415.495 PUMP STATION A-7 UPGRADE	Sewer Force main	Close-Out	2,396,575	2,396,575	100%	0	0	0
P12418.495 WTR & W/WTR D & C SYSTEM MAPPING	Master Plan/Report	Project Initiation Planning	0	0	-	0	0	0
P12419.495 FORCE MAIN ASSESSMENT	Master Plan/Report	Complete	0	0	-	0	0	0
P12419.496 FORCE MAIN ASSESSMENT	Master Plan/Report	Complete	0	0	-	0	0	0
P12456.495 SEWER BASIN D-40 REHAB	Sewer Basin	Design	169,237	65,433	39%	103,775	29	0
P12462.495 CORAL RIDGE SMALL WATERMAIN IMPROVEMENTS	Watermain	Hold	4,936,912		0%			4,936,912
P12463.495 CORAL SHORES SML WATERMAIN IMPROVEMENTS	Watermain	Warranty	1,118,998	1,118,998	100%	0	0	0
P12485.495 FIVEASH WTP FILTERS REHABILITATION	Fiveash Upgrades	Construction	3,720,000	3,726,205	100%	0	30,701	-36,906
P12528.496 GTL CHLORINE FLASH MIX REMODEL	GTL Upgrades	Construction	1,527,725	1,134,926	74%	0	392,616	183
P12529.496 EFFLUENT PMP STNBY GENERATOR & ADMIN BLD	GTL Upgrades	Design	14,000,000	469,966	3%	197,002	2,965,672	10,367,360
P12566.496 REDUNDANT SEWER FM NORTH TO GTL WWTP	Sewer Force main	Complete	25,225,638	25,203,118	100%	0	0	22,520
P12567.496 REDUNDANT SEWER FM SOUTH TO GTL WWTP	Sewer Force main	Close-Out	33,722,015	33,722,015	100%	0	0	0
P12569.495 NE 5TH STREET FORCE MAIN IMPROVEMENT	Sewer Force main	Complete	1,928,910	1,928,910	100%	0	0	0
P12570.495 36TH STREET FORCE MAIN IMPROVEMENT	Watermain	Complete	0		-			0
P12605.495 NEW PUMPING STATION FLAGLER VILLAGE A-24	Sewer Force main	Construction	681,244	684,183	100%	0	9,003	-11,942
P12608.495 TRIPLEX PUMPING STATION FLAGLER VILLAGE A-24	Sewer Force main	Design	13,441,549	222,906	2%	5,356,000	51,943	7,810,701
P12618.495 DOLPHIN ISLES B-14 SEWER BASIN REHAB	Sewer Basin	Project Initiation Planning	427,555	93,596	22%	0	0	333,959
P12619.495 BAYVIEW DR 16" FM TO PUMP STATION B-14	Sewer Force main	Design	2,530,000	95,579	4%	0	81,528	2,352,892
P12620.495 LAS OLAS MARINA PUMP STATION D-31	Sewer Force main	Construction	2,500,000	2,202,221	88%	0	297,779	0
P12628.495 INTERLOCAL AGREEMENT WITH POMPANO BEACH	Master Plan/Report	Project Initiation Planning	299,455	299,455	100%	0	0	0
P12731.495 GRAVITY SWR RPR BAYVIEW FRM 36 TO 40 ST	Sewer Force main	Warranty	309,875	309,875	100%	0	0	0
P12799.496 REHABILITATION/REPLACEMENT OF 48 TO 54-INCH FORCE MAIN	Sewer Force main	Bidding	51,115,872	17,758	0%	0	0	51,098,114
P12803.495 POINSETTIA DR SMALL WATERMAIN IMPROVEMENTS	Watermain	Project Initiation Planning	186,313	0	0%	0	186,313	0
P12827.495 SMALL WATER MAIN REPLACEMENT - SW 31ST AVENUE	Watermain	Project Initiation Planning	3,858,449	4,583	0%	0	422,301	3,431,565
P12831.495 PUMP STATION A-7 REDUNDANT FORCEMAIN	Watermain	Project Initiation Planning	2,620,000	4,239	0%	0	0	2,615,761
P12917.495 PEELE DIXIE WTP VARIABLE FREQUENCY DRIVE	Peele Dixie Upgrades	Project Initiation Planning	485,413	0	0%	0	0	485,413
<b>Totals</b>			<b>397,141,614</b>	<b>169,327,695</b>	<b>43%</b>	<b>5,179,900</b>	<b>85,790,230</b>	<b>136,843,789</b>

The commitment column is a new field in the City's Financial system and is used for the be bid purchase orders that are necessary for our consultants and construction contracts as well as Purchase Orders that are currently in process of being executed

FY 2024 Water & Sewer Expansion Impact Fees  
August 20, 2024

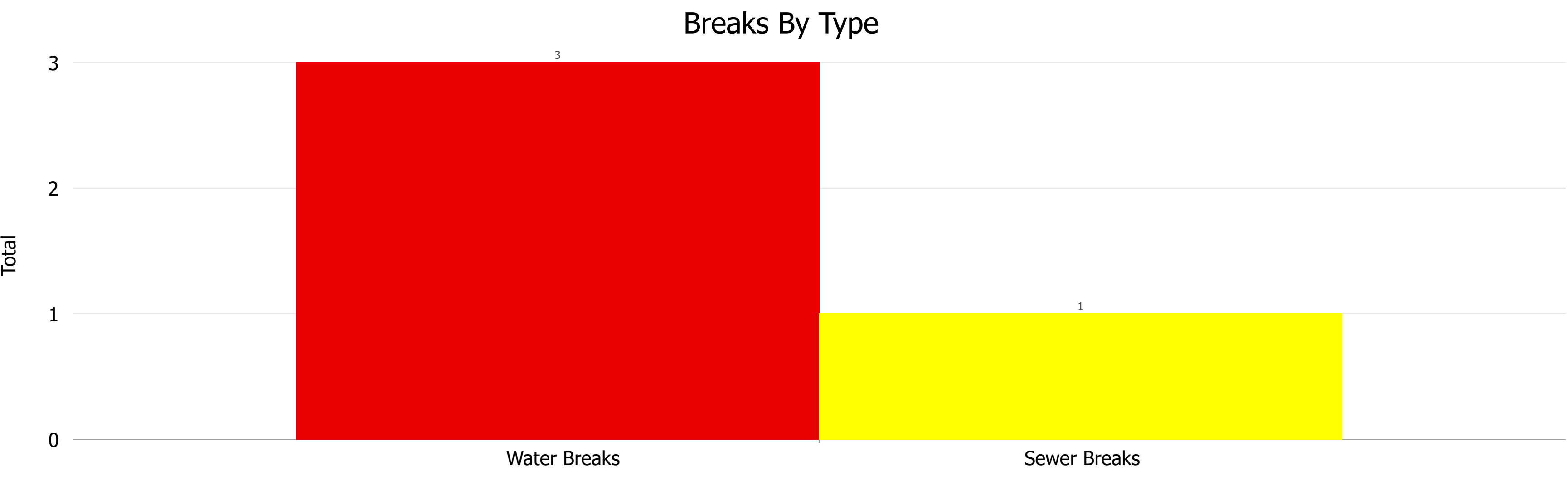
FY 2024 (Revenue (Posted as of 08.20.2024))	Fiscal Month 1 (Oct. 2023)	Fiscal Month 2 (Nov. 2023)	Fiscal Month 3 (Dec. 2023)	Fiscal Month 4 (Jan. 2024)	Fiscal Month 5 (Feb. 2024)	Fiscal Month 6 (Mar. 2024)	Fiscal Month 7 (Apr. 2024)	Fiscal Month 8 (May 2024)	Fiscal Month 9 (June 2024)	Fiscal Month 10 (July 2024)	Fiscal Month 11 (August 2024)	Fiscal Month 12 (September 2024)	Year-to-Date Total
<b>FD452.01 WATER EXPANSION/ IMPACT FEE CONSTRUCTION</b>	<b>111,246</b>	<b>60,180</b>	<b>40,608</b>	<b>28,305</b>	<b>56,404</b>	<b>133,625</b>	<b>164,743</b>	<b>69,768</b>	<b>968,868</b>	<b>85,822</b>	<b>11,862</b>	<b>-</b>	<b>1,731,431</b>
324-210 (B251) W&S IMPACT FEES - RESIDENTIAL	13,839	9,885	9,885	20,759	33,609	91,931	16,805	31,632	401,390	59,310	11,862	-	700,906
324-220 (B252) W&S IMPACT FEES - COMMERCIAL	97,407	50,295	30,723	7,546	22,795	41,695	147,939	38,136	567,478	26,512	-	-	1,030,526
<b>FD453.01 SEWER EXPANSION/ IMPACT FEE CONSTRUCTION</b>	<b>115,547</b>	<b>57,471</b>	<b>38,780</b>	<b>27,031</b>	<b>381,211</b>	<b>129,498</b>	<b>157,331</b>	<b>66,628</b>	<b>926,568</b>	<b>80,642</b>	<b>11,328</b>	<b>-</b>	<b>1,992,032</b>
324-210 (B251) W&S IMPACT FEES - RESIDENTIAL	13,216	9,440	9,440	19,824	32,096	89,680	16,048	30,208	384,636	55,324	11,328	-	671,241
324-220 (B252) W&S IMPACT FEES - COMMERCIAL	102,331	48,031	29,340	7,207	349,115	39,818	141,283	36,420	541,932	25,318	-	-	1,320,792
324-220 (N963) IMPACT FEES - SEWER	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>226,793</b>	<b>117,651</b>	<b>79,387.10</b>	<b>55,335</b>	<b>437,614</b>	<b>263,123</b>	<b>322,074</b>	<b>136,396</b>	<b>1,895,436</b>	<b>166,464</b>	<b>23,190</b>	<b>-</b>	<b>3,723,464</b>



**Legend**

- Water Break (3 Total)
- Sewer Break (1 Total)
- Commission District 1
- Commission District 2
- Commission District 3
- Commission District 4
- Fort Lauderdale Municipal Boundary

Scale: 0 to 1 Miles



### Water Distribution Breaks

Date of Break/PBWN	Q-Alert	Address	Type	Size	Material	Cause	PBWN Issued?	Impacted Properties
8/17/2024	17258628	E Oakland Park Blvd & NE 32 Ave	Water Main	16 inch	CIP	EMERGENCY REPAIR		
8/22/2024	17346876	725 N Birch Rd	Water Main	6 inch	DIP	EMERGENCY REPAIR		
8/28/2024	16449711	1700 S Ocean Dr	Water Main	6 inch	DIP	EMERGENCY REPAIR		

### No Sewer Main Breaks

Date of Break/PBWN	Q-Alert	Address	Type	Size	Cause	Volume (Gal)	SSO Issued?	Impacted Properties
8/18/2024	17314246	1801 SE 17 St	Force Main	8 inch	GRAVITY BLOCKAGE	1350	Yes	