CITY OF ST AUGUSTINE EST. 1565

City Commission

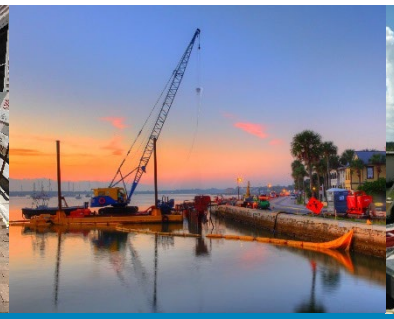
Public Works & Utilities Quarterly Update

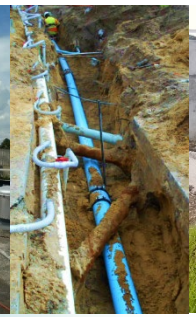
April 25, 2022

Todd J. Grant, P.G. — Director, Utilities

Reuben C. Franklin, Jr., P.E. — Director, Public Works






Public Works & Utilities CIP Agenda

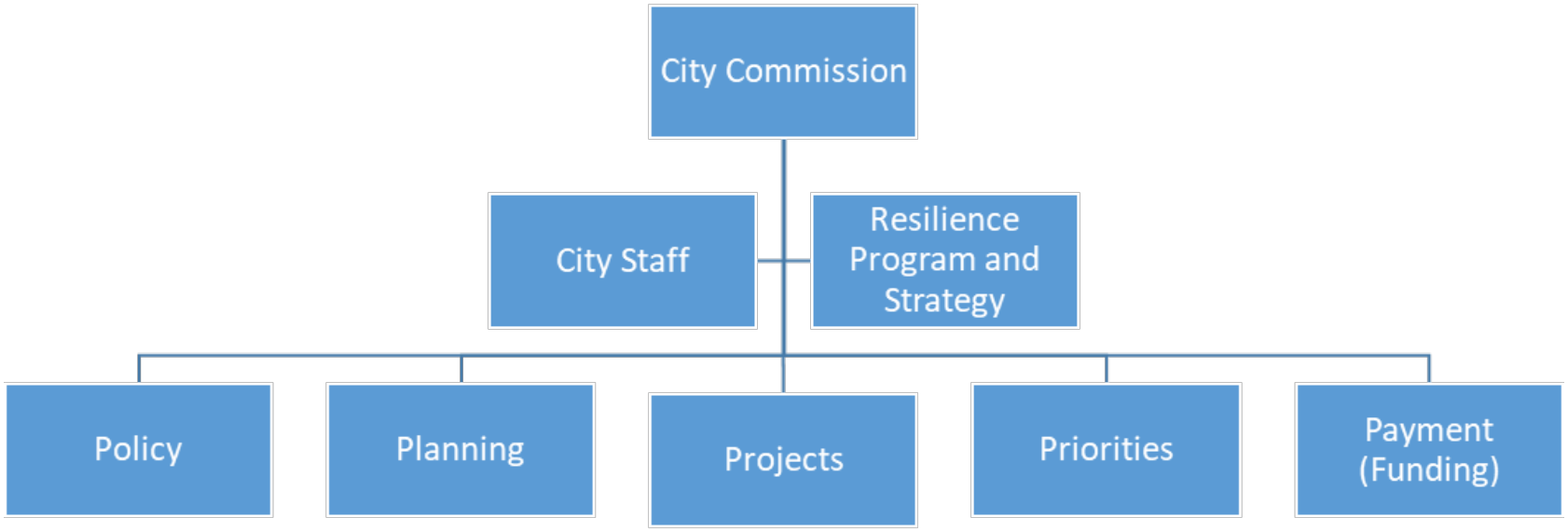
- FEMA 13 Lift Station Rehabilitation Project
- Resilience Program Updates
- West Augustine Gravity Sewer Improvements
- Sustainability and Environmental Updates
- Capital Projects Overview and Status

FEMA 13 LIFT STATIONS REHABILITATION

- Construction Cost $13.8M
- Start Construction Jan 2021
- Finish Construction Feb 2023

- Substantially Complete:
  - LS-4, 5, 6, 21, 22, 23, 24
- Under construction
  - 7, 11, 12
- Arricola Ave. Force Main
  - Substantially Complete

Program Outline



Resilience Program Updates

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Policy

- ✓ Building Code Task Force on Existing Properties met in 2021
  - Ordinance 2021-26 in place to establish an impervious surface ratio
  - Proposed single family lot grading plan guidance in development
- ✓ Seawall Ordinance – started
- ✓ Living Shorelines – started
- ✓ Monitoring State legislative session related to Resiliency bills

CITY OF ST. AUGUSTINE

MEMORANDUM

TO: Planning and Zoning Board

DATE: August 26, 2021

RE: Building Code Task Force for Existing Properties – Final Report

On November 9, 2020, the City Commission appointed the Building Code Task Force for Existing Properties. The Task Force was given three specific goals to address the development of private residential properties in our older, established neighborhoods.

Goal #1 – Protect older homes from the flooding impacts of new home construction.

Goal #2 – Provide incentives for property owners to use building techniques (pier and stem wall foundations) which do not require land filling for new home construction.

Goal #3 – Limit the amount of impervious surface that is allowed on residential lots.

The Task Force held four public meetings and produced a final report to the City Commission with their findings and recommendations.

On March 8, 2021, the City Commission accepted the final report of the Building Code Task Force. The City Commission forwarded this report to the Planning and Zoning Board for the board's input and formal recommendation on the adoption of new land development codes.

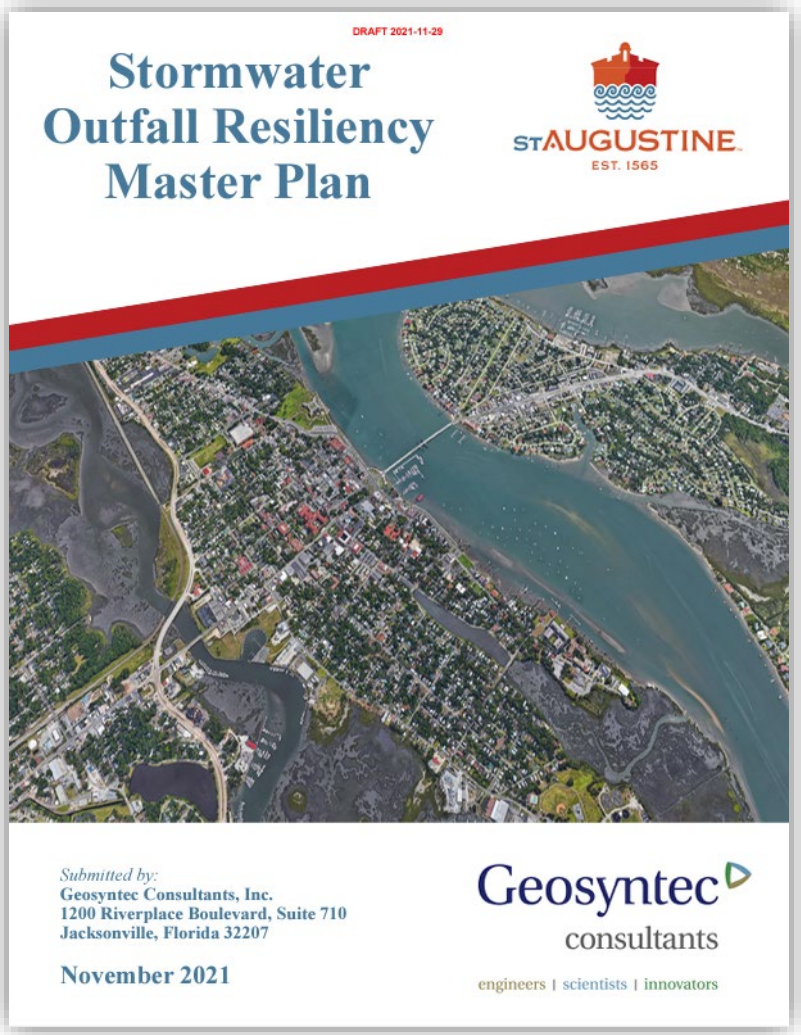
On June 16, 2021, the Planning and Zoning Board held a public workshop and instructed staff to begin the process of creating a grading and drainage plan requirement, to be included in the building permit process for construction of new single family homes. This addresses goal #1, to protect older homes from the flooding impacts of new home construction. The board also reached a consensus on creating a 70% maximum impervious surface ratio for residential properties. This will come back to the board on September 7, 2021 for a formal recommendation prior to City Commission review. This addresses goal #3 of the Tasks Force's recommendations.

Goal # 2 of the Task Force, creating an incentive for property owners to use pier or stem wall foundations for new home construction, has been discussed and debated by the board, the task force, the public and city staff. So far, there has been no meaningful incentives to achieve this goal. The following incentives have been discussed;

1. Provide an additional 5% lot coverage.
2. Provide additional building height above the current maximum height limit.
3. Allow an additional residential dwelling unit (accessory apartment) on the property.
4. Reduce the minimum lot size to potentially allow for the subdivision of property.

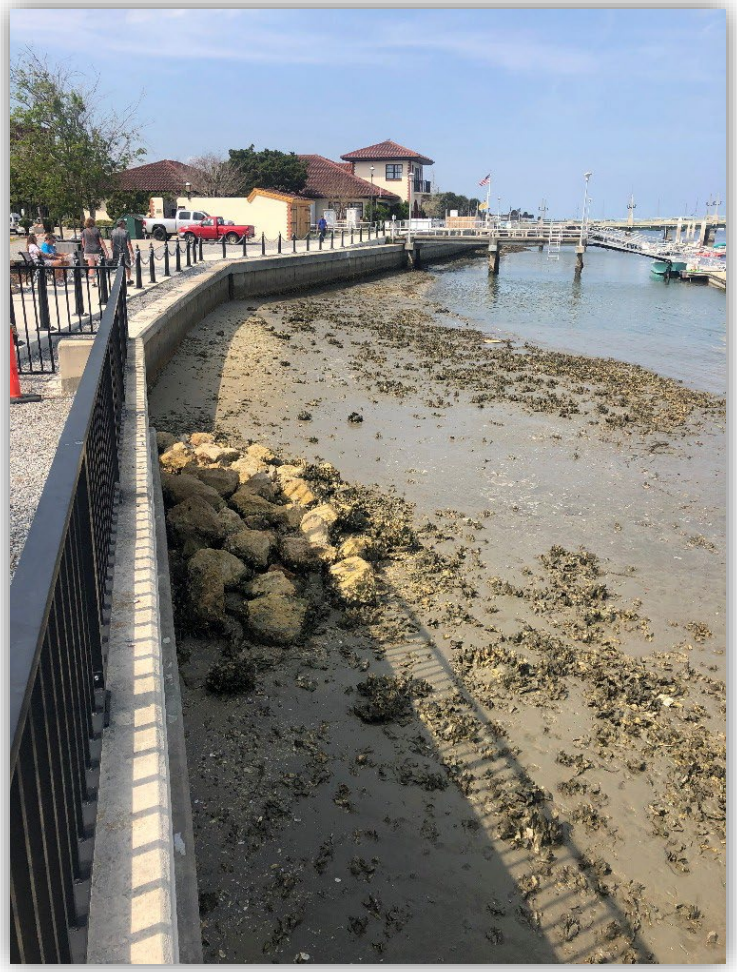
Resilience Program Updates

- **Planning**
  - ✓ Draft Stormwater Outfall Resilience Master Plan under review
  - ✓ Citywide Stormwater Resilience Master Plan Update proposed for 2022
    - ✓ ARPA Funding proposed for use to initiate plan
    - ✓ If approved, initiate solicitation for request for qualifications to begin the procurement process



Resilience Program Updates

- **Project Implementation**
  - ✓ FEMA 13 Lift Stations Rehabilitation - under construction (www.CityStAug.com/FEMA13)
  - ✓ Lake Maria Sanchez Flood Mitigation and Drainage Improvement Project (HMPG)– proceeding with design (www.CityStAug.com/LakeMariaSanchez)
  - ✓ Avenida Menendez Flood Barrier (HMPG) – Phase 1 @ 100% Design
  - ✓ South Whitney West King Street Flood Mitigation (HMGP) – executed Phase 2 contract for construction with the State and FEMA, seeking additional construction funding for local share
  - ✓ Stormwater – budgeted for this FY, cleaning, inspection, rehab and/or lining of storm pipe in priority locations



Resilience Program Updates

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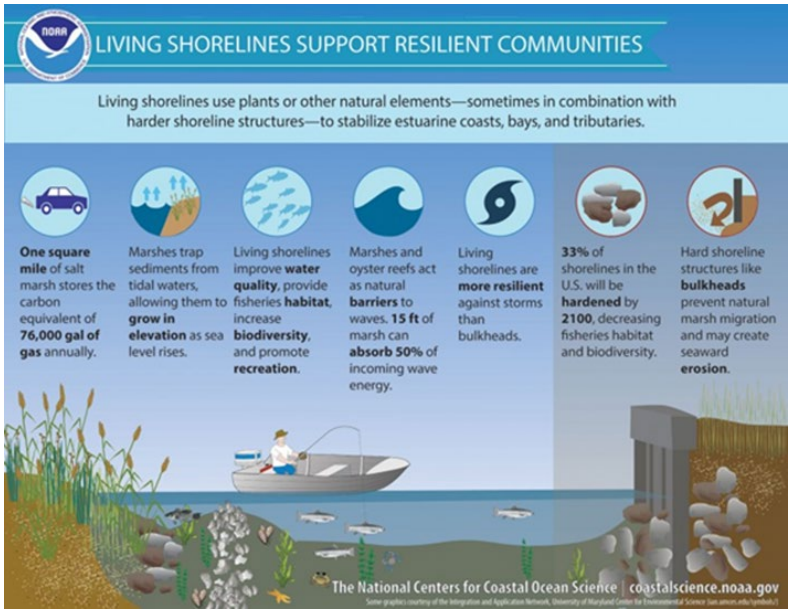
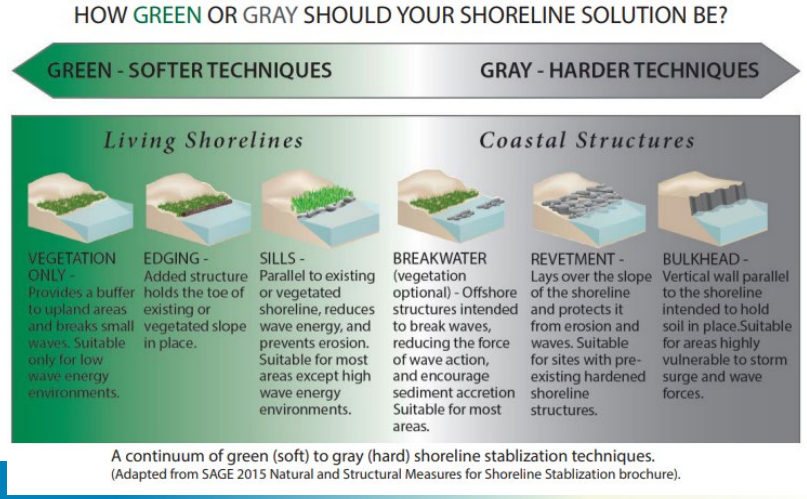
❖ Priorities –

- ✓ Based on input from Commission during the 10-25-2021 Resilience Workshop
  - Seawall Ordinance – establish minimum cap elevations, consider nature-based options and other construction techniques
  - Updating the current Coastal Vulnerability and Strategic Adaptation Plans based on latest data available
  - Include a comprehensive evaluation for cost and benefits for any proposed projects to better prioritize limited resources and needs
  - Continue with Outreach and Education – expand upon current website, consider non-computer users, workshops and neighborhood meetings as needed



NOAA | Living Shorelines



A continuum of green (soft) to gray (hard) shoreline stablization techniques.
(Adapted from SAGE 2015 Natural and Structural Measures for Shoreline Stablization brochure).

Resilience Program Updates

- **Payment (Funding) Updates**
  - ✓ **Resilient Florida** – new from the State Legislature – s. 380.093, F.S.
    - ✓ 11 applications were submitted (3 planning, 7 projects)
    - ✓ $100 M – FY2022-23 Statewide Flooding and Sea Level Rise Resilience Plan
      - ✓ 76 projects ranked State-wide
      - ✓ City applications were not selected
    - ✓ $500 M – project implementation applications are still under review
    - ✓ $20M – planning applications are still under review
  - ✓ **Rebuild Florida** –General Infrastructure Program through the Dept. of Economic Opportunity
    - ✓ $175M for long-term mitigation efforts
    - ✓ Submitted for construction costs for Lake Maria Sanchez project
    - ✓ Applications are still under review

West Augustine Gravity Sewer Improvements

West Augustine Sewer Master Plan

- In Design

West 3rd Street Sewer Extension – Volusia to Duval

- In Design
- Eliminates 20 Residential Septic Tanks

Septic-to-Sewer Program

- In Construction: Pkg 5, 7 connections
- Abandoned 57 septic systems to date

Pearl Street Gravity Sewer

- In Design - Expanding gravity sewer from existing lift station

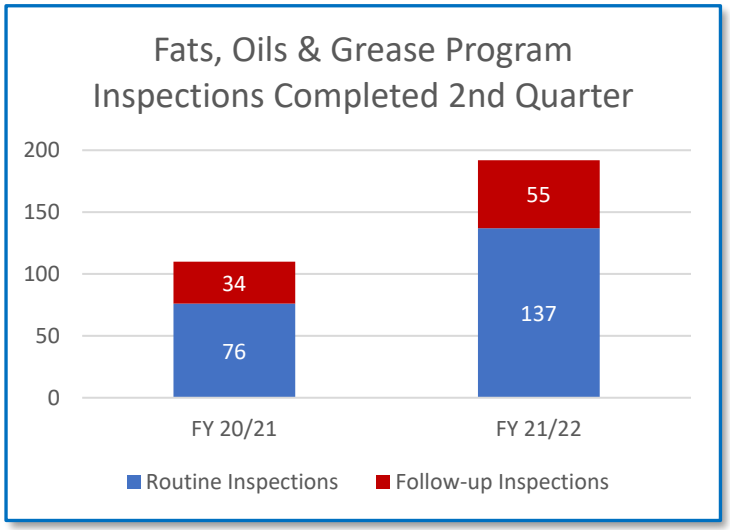
Sustainability Updates

- **Tree Canopy Enhancement Program Update**
  - 85 trees planted
  - All installations complete
  - Next cycle applications open June 1 with different species options

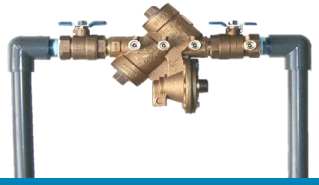
- **Residential Compost Bin Pilot Program**
  - Free compost bin for residents inside City limits
  - Applications opened 3/18/2022
  - High volume of applications received; quantities met by 9:00 a.m.

Environmental Programs Updates

- **Fats, Oils & Grease Program**
  - 192 inspections completed this quarter, 75% increase over 2nd quarter FY 20/21
  - 55 facilities out of compliance & required follow-up inspections



- **Cross-Connection Control Program**
  - Received more than 204 backflow preventer test reports
  - Annual report completed & submitted to Florida Dept. of Environmental Protection



- **Illicit Discharge Detection & Elimination Program**
  - Monthly & annual pollution prevention inspections completed at fleet & marina
  - 133 proactive illicit discharge inspections completed

CIP Overall Status Summary

Capital Improvement Projects – Through April 25, 2022

Project Scope Development	Conceptual Analysis & Studies	Preliminary Design	Final Design	Bidding Construction Contract	Construction Phase	Substantial Completion	Final Completion
Parking Pay Station Flood Proofing	St. Francis Street Utility Improvements	Lake Maria Sanchez Flood Mitigation	Sevilla St Roadway & Utility Improvements	City Marina Crosswalk*	West Augustine Septic to Sewer Connections PKG 5	S. Orange Street Utility Adjustments (SJC)	Avenue D Utility Adjustments (SJC)
South Tank Potable Water Fill Line	Lift Station 14 Replacement	San Sebastian WM HDD King Street	Avenida Menendez Seawall (HMGP) (1)	S. Whitney & W. King Flood Mitigation (1)	Hurricane Matthew FEMA 13 Lift Station Rehabilitation	Lift Station 4, 5, 6, 21 22, 23, 24 (FEMA 13)	I&I Clean & Inspect Sewer Basins 62, 68, 69, & 71
SCADA Master Plan	Lift Station 8 Replacement	City-wide TIDE Valve Master Planning	Duero & Cerro Utility and Storm Improvement	WTP Motor Control Center Replacement	N. Rodriguez Street Utility Adj (SJC)	I&I Smoke Testing Sanitary – 16 Basins	
Pearl Street Force Main Improvements	Lift Station 41 Replacement	W Augustine Gravity Sewer Master Plan	King Street Drainage (FDOT)	RO Concentrate Discharge	I&I Manhole Rehab Basins 16, 17, 20, & 52	Automatic Meter Reading Phase 4	
Lighthouse Park Gravity Sewer Improvements	Stormwater Master Plan Update Phase 2	Inlet Drive Shoreline Restoration*	S. Holmes Utility Adjustments (SJC)	SR 312 from 207 to Holmes Util Adj (FDOT)	WWTP Headworks Rehabilitation	Arricola Ave Force Main HDD Improvements	
Court Theophelia Neighborhood Flood Mitigation & Drainage Improvements	USACOE Back Bay Feasibility Study	Stormwater CIPP Lining for Valves	Santa Rosa Utility Adjustments (SJC)	I&I Sanitary Sewer Main & Lateral Rehab FY 2022		Oyster Creek Force Main HDD (FDOT)	
Groundwater Monitoring Network for Sea Level Rise Impacts		Pearl Street Gravity Sewer Improvements	Downtown Improvement District Phase 2			I&I Clean & Inspect Sewer Basins 60, 64, 66, & 70	
South Davis Shores Flood Mitigation & Drainage Improvements			West 3rd Street Gravity Sewer Improvements				
WWTP Motor Control Center #1 Improvements							

Key:
(1) Grant Dependent
(2) Developer Dependent
(*) Postponed
(**) Phase Complete
Utilizing FY22 Funds
Utilizing Loans or Grants FY22

CIP Overall Status Summary

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WWTP Motor Control Center #1 Improvements							

Key:
(1) Grant Dependent
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Additional Questions and Commission Discussion

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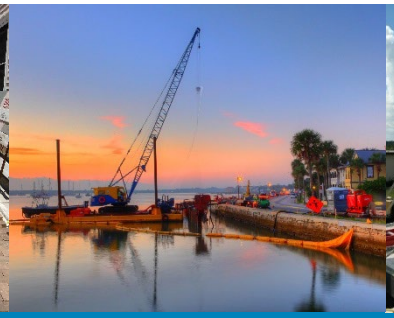
Public Works & Utilities
Capital Improvement Plan (CIP)
Project Information

Appendix

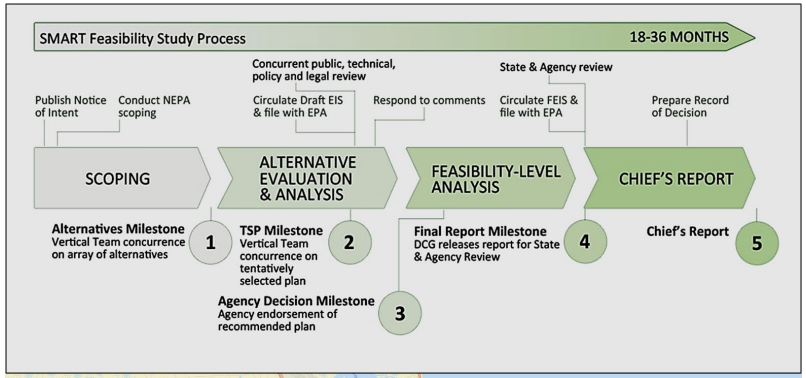


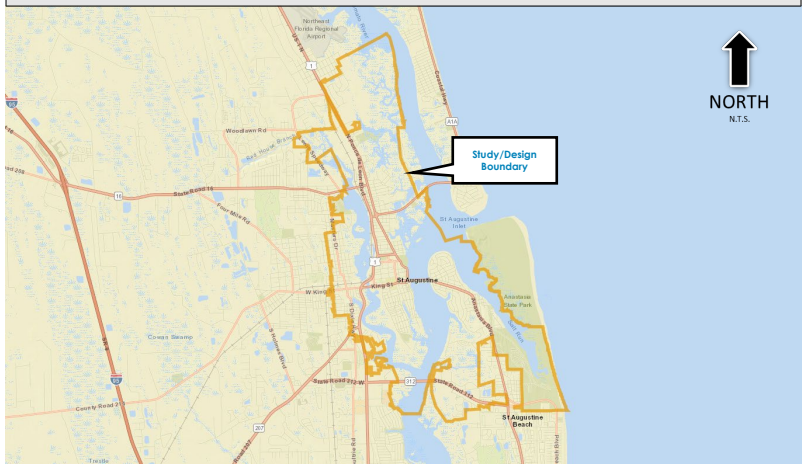




CIP Project Information

Army Corps of Engineers Back Bay Feasibility Study

The City of St. Augustine Coastal Storm Risk Management (CSRM) Study is a three-year federal feasibility study that investigates coastal storm impacts on the City of St. Augustine. In partnership with the Army Corps of Engineers, City of St. Augustine and its stakeholders, the study will also explore economically-viable and environmentally-sound solutions to mitigate coastal storm risks. The objective of the Study is to investigate Coastal Storm Risk Management problems and identify solutions to reduce damages from coastal flooding that affects population, critical infrastructure, historic and culturally significant resources, and ecosystems, which will benefit the community as future projects are designed to mitigate flooding.



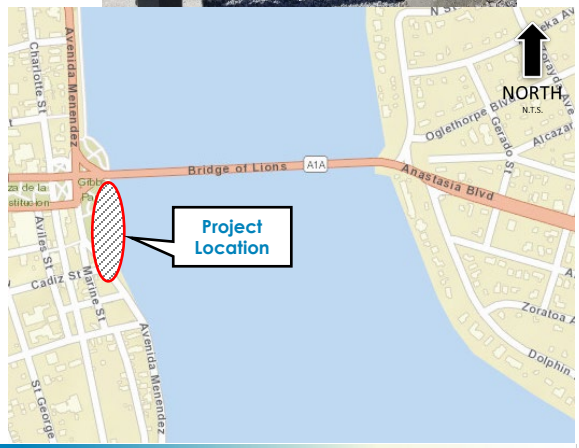


Project Cost:	$3,000,000
Project Funding:	50% Federal, 50% COSA
Project Duration:	2022-2025
Project Status:	Contracts in Progress

CIP Project Information

Avenida Menendez Seawall

The City of St. Augustine has received federal funding through FEMA's Hazard Mitigation Grant Program to design and construct the final segment of seawall near the Marina. This project will essentially close the "elevation" gap between the existing north (Bayfront Park) and south (2013 Avenida Menendez Seawall) segments. The project entails raising the final segment of seawall to match the north and south elevations, installation of two (2) tide check valves, and rehabilitation of the existing seawall to harden it. The combination of this work will provide for a higher level of flood protection up to the 100-year storm event (also referred to as the 1% annual chance event). The City has also recently applied to the Florida Inland Navigation District (FIND) to help with the construction costs that that the City will be responsible for. Decisions on the pending grant application with FIND will be made later this summer or early fall.

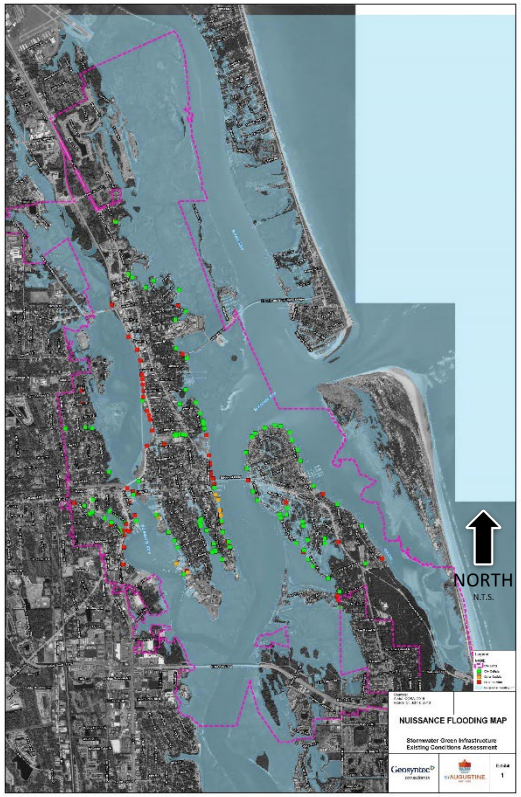


Project Cost:	$1,500,000
Project Funding:	75 % Federal, 25% COSA
Project Duration:	2022-2024
Project Status:	Final Design

CIP Project Information

City-Wide Tidal Backflow Prevention Improvements

The City has approximately 103 stormwater outfalls that are tidally influenced, resulting in nuisance flooding of the road infrastructure. To date, the City has retrofitted 43 outfalls with tide check valves to eliminate nuisance tidal flooding. The City proposes to retrofit an additional 20 outfalls. Once the locations are identified, the City will contract out (using an existing competitively procured contract) for the evaluation of each storm outfall that includes cleaning and closed-circuit television (CCTV). The City will review that evaluation data and determine if any storm pipe repairs or lining needs to occur in preparation for the tide check valve installation.



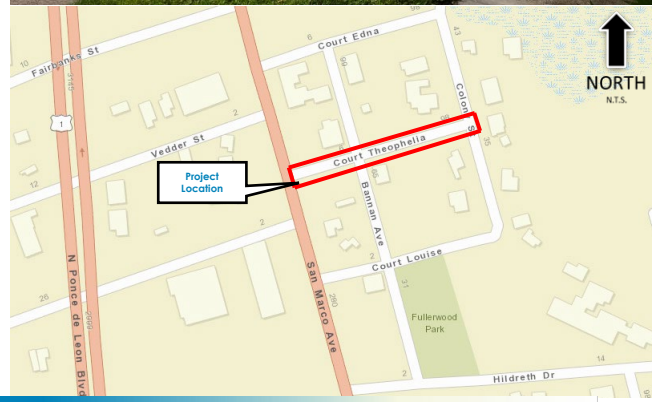
Project Cost Estimate:	$461,282
Project Funding:	Resilient Florida Grant
Project Duration:	2022-2026
Project Status:	Design

CIP Project Information

Court Theophelia - Neighborhood Flood Mitigation & Drainage Improvements

The project includes design, permitting, and construction to replace aged utilities, upgrade existing storm water infrastructure and evaluate structural and non-structural based resiliency options for the neighborhood. This will also incorporate a mobility component into the project for multiple benefits. The project outcomes include reconstruction of flood prone and damaged roads due to high tide flooding, improved drainage to provide a higher level of service during rainfall events, replacement of aged utilities, implementation of green infrastructure and/or low impact development to provide water quality benefit with storm water management, potential incorporation of greenspace for multi-project benefits to serve as recreational, storm water mobility and resiliency uses.

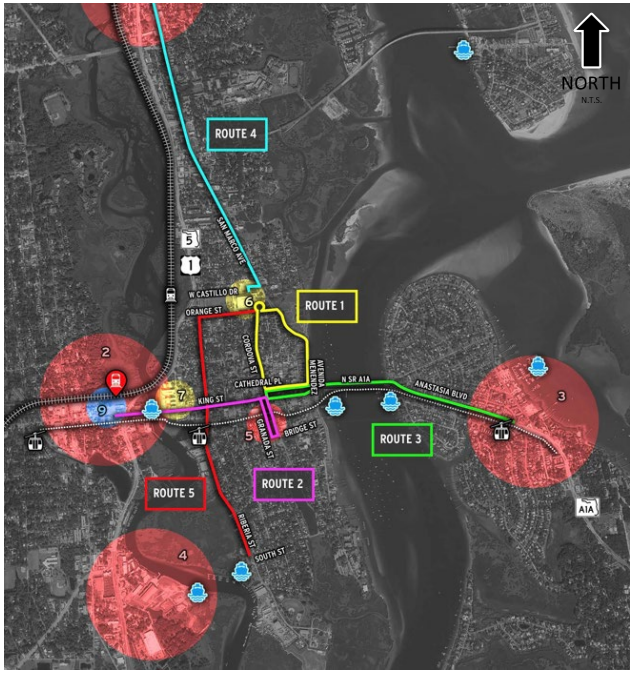
Project Cost:	$2,581,600
Project Funding:	Resilient Florida Grant
Project Duration:	2022-2026
Project Status:	Ready for Solicitation



CIP Project Information

Downtown Circulator (Route 1)

Beginning in the red brick cul-de-sac at the City of St. Augustine (CoSA) Visitor Information Center (VIC) located at 10 South Castillo Drive, the Circulator will travel south to the intersection of Cordova Street at Orange Street. Then turn left and travel east along Orange Street to South Castillo Drive. Then turn right onto South Castillo Drive and travel in a southeasterly direction to Avenida Menendez and turn right onto Avenida Menendez. The total travel distance is 1.12 miles, and travel time is estimated to be 15 minutes during normal traffic conditions and should include normal required time for passengers unloading/loading at the 3 Stops. Frequency of Stops are desired to be in 15-minute intervals.



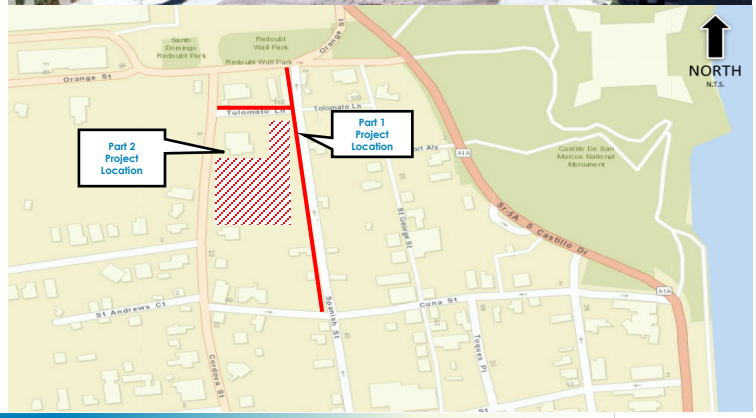
Project Cost:	$1,000,000 Annually
Project Funding:	FDOT, CoSA
Project Duration:	Annual
Project Status:	Developing Solicitation

CIP Project Information

Downtown Improvement District Phase 2a

Part 1: Reconstruct Spanish St. (from Cuna St. to Orange St.) and Tolomato Ln (from Spanish St. to Cordova St.) as curb-less streets with coquina sidewalks and brick cart path. Improvements include underground water and sewer upgrades, stormwater pipes, and inlets, road regrading, concrete work, street lighting and landscaping.

Part 2: Reconfigure and reconstruct Tolomato Lot to include parking, commercial loading zones, a trash compactor enclosure and a recycling enclosure. The improvements include concrete pavement, pervious pavers, and loose coquina shell parking surface. Additionally, there is improved lighting, landscaping, bike racks, a perimeter masonry wall and pedestrian connections to Spanish St. Special care is to be taken to protect existing trees that are to remain.



Design Cost:	$200,000
Construction Cost:	$2,000,000
Project Duration:	12 Months (2022-23)
Project Status:	Preparing Solicitation

CIP Project Information

Groundwater Monitoring Network for Sea Level Rise Impacts

In conjunction with the Vulnerability Assessment, this effort will focus on predicting impacts, specifically to critical infrastructure, of sea level rise by installing a monitoring network to accurately measure rates of change in current shallow groundwater elevation and water quality. The monitoring network proposed will not contain less than 60 monitoring points. A professional licensed surveyor will survey each point. Monitoring will be scheduled/sequenced to represent the same atmospheric / geologic conditions each monitoring period to attempt to replicate these variables. All data (sea level, groundwater, water quality & creek level) will be compiled and summarized quarterly, building the data set. Daily rainfall along with any severe storm activity will also be summarized.

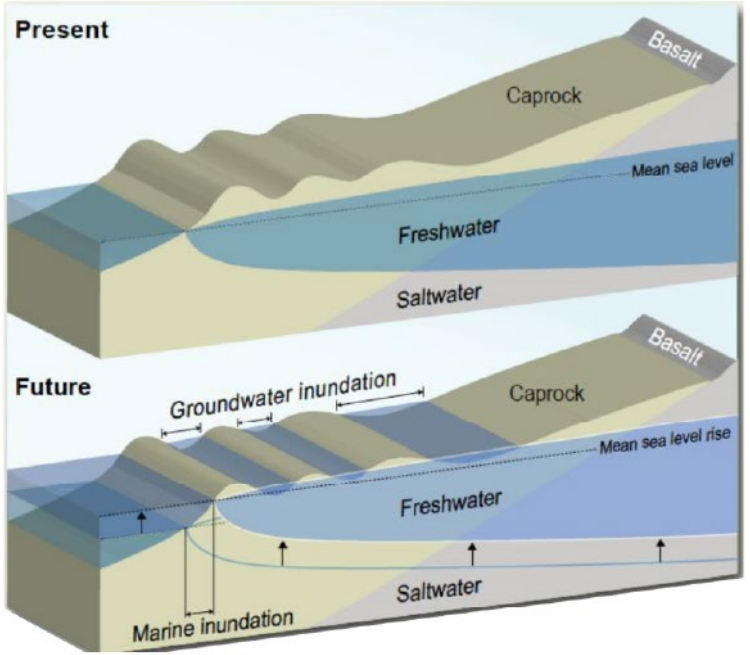


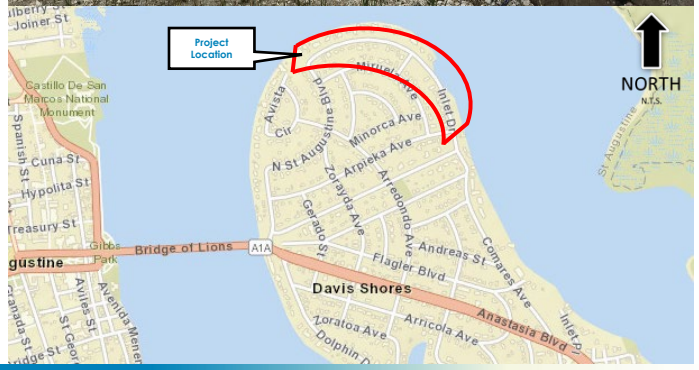
Figure 19. Conceptual diagram of groundwater inundation, obtained from Rotzoll and Fletcher (2012).

Project Cost Estimate:	$217,100
Project Funding:	Resilient Florida Grant
Project Duration:	2022-2026
Project Status:	Preparing Solicitation

CIP Project Information

Inlet Drive Shoreline Resiliency

This project would look to include a combination of structural and non-structural based solutions (living shoreline enhancement, thin layer placement of dredged material etc.) to elevate and protect a section of shoreline that is subject to coastal erosion that would provide a higher level of flood protection for a critical residential road in the North Davis Shores neighborhood. This would also include upgrading the existing storm infrastructure and installation of a tide check valve.



Project Cost Estimate:	$711,090
Project Funding:	Resilient Florida Grant
Project Duration:	2022-2026
Project Status:	Preparing Solicitation

CIP Project Information

King Street Ownership Transfer

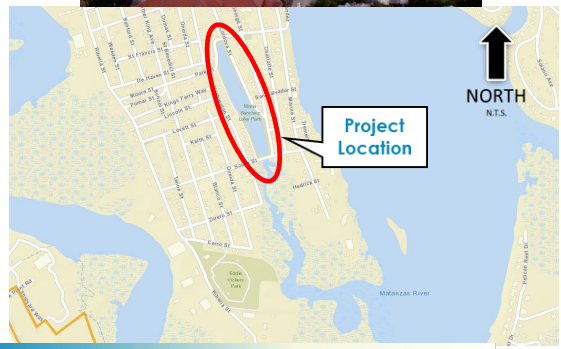
The Florida Department of Transportation (FDOT) transfers the ownership of right-of-way for King Street, Cathedral Place, Cordova Street and the San Sebastian Bridge located between US 1 and Avenida Menendez to the City of St. Augustine (CoSA). It is in the best interest of the CoSA to control this entry corridor bisecting the City to enact mobility improvements consistent with the CoSA's Mobility Plan. Ownership of the bridge will be transferred to CoSA once the reconstruction is complete. The FDOT commits to a redesign of the intersections located at the western base of the Bridge of Lions including Cathedral Place/Avenida Menendez and King Street/Avenida Menendez. The FDOT also commits to evaluating and if feasible work with the City to design, permit and construct a pedestrian/bicycle bridge crossing US 1 connecting east King Street to west King Street.

Project Cost:	$18,000,000
Project Funding:	FDOT
Project Duration:	10 Years
Project Status:	Under Review

CIP Project Information

Lake Maria Sanchez- Flood Mitigation & Drainage Improvements

This project will benefit approximately 200 acres of the historic district of the Nation's Oldest City. It will provide an increased level of flood protection from increasing high tide events, storm surge and future sea level rise by incorporating a combination of resilience strategies which include upgrades to the existing stormwater infrastructure, installation of a stormwater pump station, construction of a flood wall, and installation of tide check valves. The project area includes a number of historic buildings and structures listed on the National Register of Historical Places. By maintaining the integrity of the Nations Oldest City through implementation of this project, it will help our regionally significant historical and cultural assets benefiting the County and arguably the Northeast Florida region.



Project Cost:	$29,830,178
Project Funding:	FEMA HMPG and Resilient Florida Grants
Project Duration:	2022-2027
Project Status:	Design

CIP Project Information

Lighthouse Park Gravity Sewer Improvements

This project will bring gravity sewer collection systems to the greater Lighthouse Park Neighborhood area. This neighborhood area was identified in the Septic Tank Vulnerability Assessment study as one the top contributors to surface water nitrogen from septic within the city limits. This project will eliminate existing and future onsite septic systems and residential grinder pump connections to force main. The project area is east of Anastasia Blvd between Ocean Way to the north and Anastasia Park Dr to the south.

Project Study/Design: $665,000
Project Construction: $6.7M
Project Funding: 2022 Loan
Project Duration: Study/Design: 7 Months; Construction (TBD)
Project Status: Developing Scope for Study/Design

CIP Project Information

Parking Pay Station Flood Proofing

The project will provide flood proofing to the parking pay stations along the bayfront and throughout downtown. The project entails building flood proof cases for the parking pay stations that will be deployed prior to flood events.

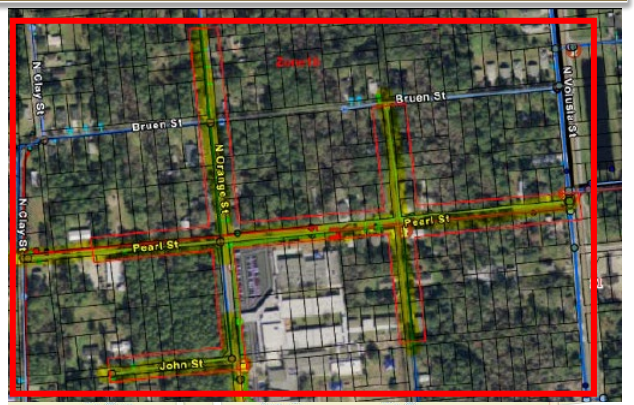
Project Cost Estimate: $70,000
Project Funding: Parking Division (General)
Project Duration: 12 Months (2022-23)
Project Status: In Progress

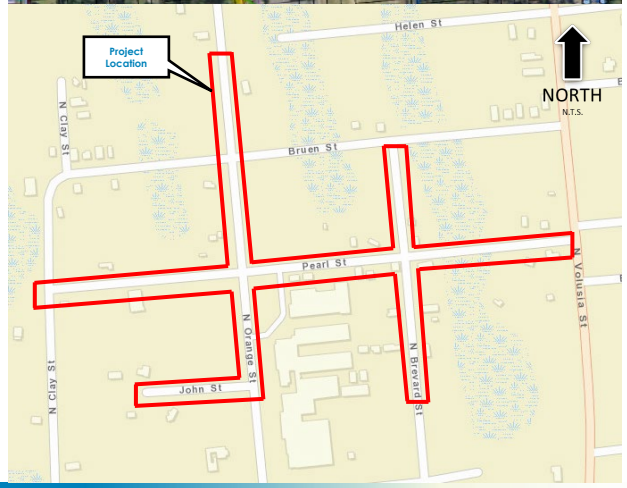
CIP Project Information

Pearl Street Gravity Sewer Improvements

The City acquired existing sewer infrastructure that includes a pump station and gravity sewer infrastructure around the perimeter of Webster Elementary School. The City has the opportunity to install gravity sewer main extensions off the existing infrastructure and a watermain replacement to serve the residents in the adjacent area. The project is currently in design and will build out the gravity sewer basin to the full extents possible and serve 42 existing residential homes. The proposed 6-inch watermain will replace the existing 2-inch watermain and tie into existing watermains to continue a loop system.

Project Design:	$121,424
Project Construction:	$2,535,875
Project Funding:	2022 Loan
Project Duration:	18 Months (2022-2023)
Project Status:	Design

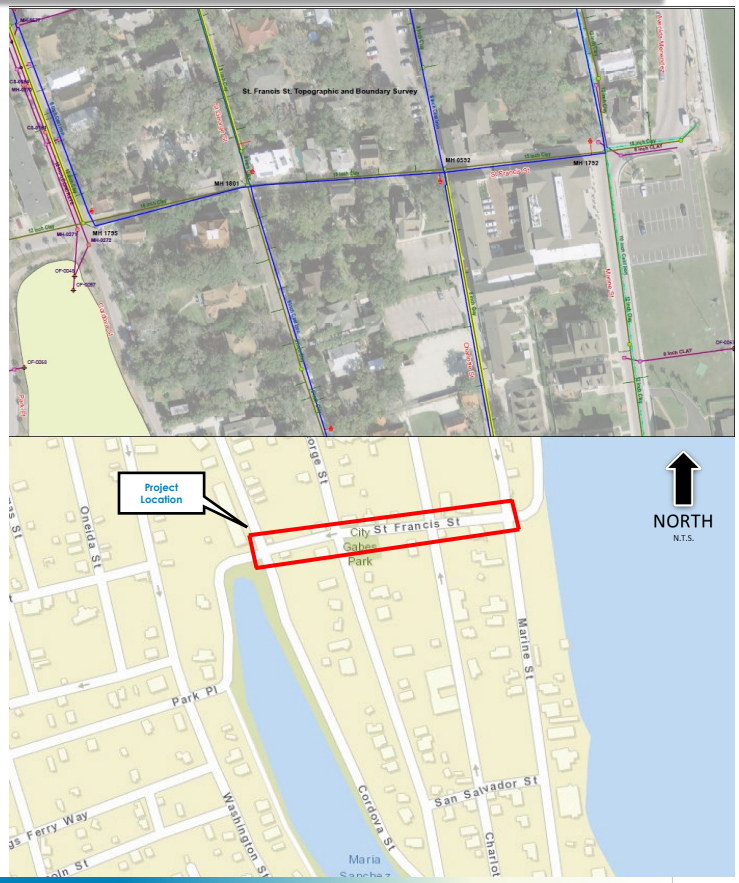




CIP Project Information

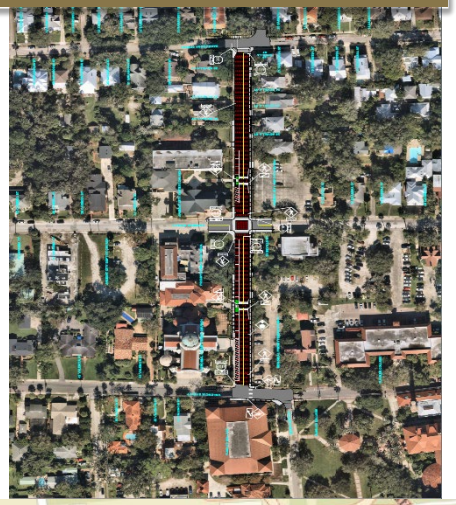
St. Francis Street Utility Improvements

St. Francis Street currently has a vitrified clay pipe (VCP) gravity sewer collection system that is oversized, shallow-sloped, with cementitious material in the invert of the mains. Sanitary sewer overflows and a collapsed main during trenchless repair qualifies for complete replacement. Project will consist of cast iron water main replacement, gravity sewer replacement, roadway (asphalt or brick) replacement, and stormwater improvements. Adjusting the grade and slope of the gravity sewer main will allow city to continue these hydraulic improvements along Cordova Street with the LMS project.



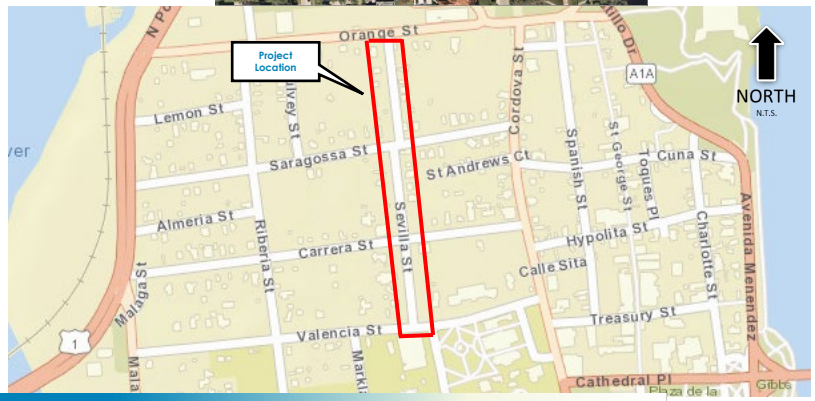
Estimated Design Cost:	$ 120,000
Estimated Construction Cost:	$ 1.1 M
Project Status:	Alternative Analysis
Construction Duration:	TBD

CIP Project Information



Sevilla Street Roadway & Utility Improvements

The Sevilla Street improvements consist of cast iron water main replacement, gravity sewer replacement, stormwater improvements, and brick roadway replacement. Project will also include improvements to existing sidewalks, with elevated crosswalks and intersections.



Design Costs:	$ 110,000
Estimated Construction Costs:	$ 1.2 M
Project Status:	Final Design
Construction Duration:	TBD

CIP Project Information

South Davis Shores Flood Mitigation & Drainage Improvements

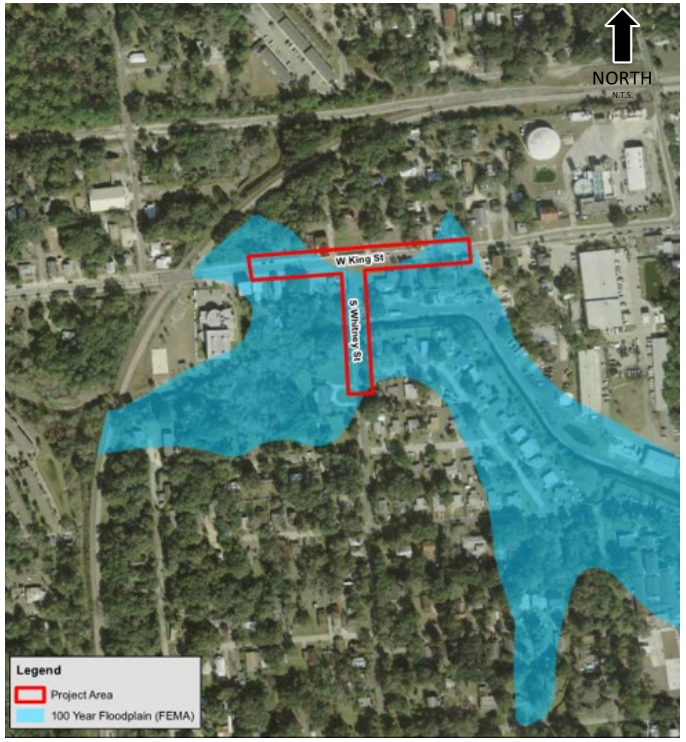
This project will be broken into two phases to include the design, permitting and construction to address the rainfall driven flooding events, with some consideration for tidal surge. This will primarily include major upgrades to the existing undersized and aged drainage infrastructure, reconfiguring a drainage ditch and upsizing an existing culvert. This project would seek to address the rainfall driven flooding through upgrades to existing stormwater infrastructure and installation of smart tide check valves. For the tidal surge, in lieu of the one-way in line tide check valves, a "smart" tide check valve system will be installed into 3 culverts that are tidally influenced. The smart valves will stay in the open configuration to maintain wetland hydrology of upstream wetland systems, but close temporarily in advance of flooding conditions.

Project Cost Estimate: $2,797,000
Project Funding: Resilient Florida Grant
Project Duration: 2022-2026
Project Status: Preparing Solicitation for Design

CIP Project Information

South Whitney West King Street Flood Mitigation Project

The proposed improvements consist of raising South Whitney St. and West King St. above the FEMA flood elevation of 7.0' NAVD88, replacing the existing box culvert (40-inch by 56 inch) at South Whitney with a single box culvert (48-inch by 96-inch) that doubles the hydraulic capacity. The project also includes reconstruction of the existing storm sewer system and its outfall at the box culvert on South Whitney St., but close temporarily in advance of flooding conditions.



Project Cost Estimate: $1,822,600
Project Funding: FEMA HMPG and Resilient Florida Grants
Project Duration: 2022-2026
Project Status: Preparing Construction Bid

CIP Project Information

Stormwater Master Plan: Phase 2

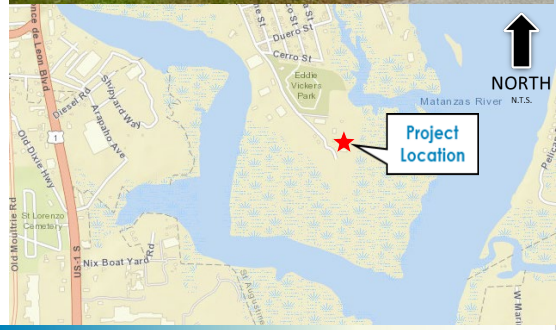
With the last stormwater master plan's data being from 2013, several flood events have taken place due to hurricanes, king tides and heavy rainfall. This proposed City-wide study will update the master plan to incorporate recent vulnerability assessments, resilience studies and a comprehensive plan update to better assess the increase in risk from coastal and rainfall driven flooding. This update will fill in data gaps from the previous coastal vulnerability assessment. The master plan will include an updated comprehensive analysis and risk assessment of critical infrastructure for coastal rainfall and compound flooding; needed stormwater ordinance and development code modifications; prioritization of areas needing stormwater improvements for flooding/water quality; benefit and cost analysis for flooding/water quality improvement projects; a public outreach and education; evaluation of funding options; and development of capital improvement projects to vulnerable areas.

Project Cost:	$2,000,000
Project Funding:	100% ARPA Grant
Project Duration:	2022-2025
Project Status:	Ready for RFQ

CIP Project Information

Wastewater Treatment Plant Headworks Rehabilitation

The Wastewater Treatment Plant (WWTP) is the initial stage of the sanitary sewage treatment process. The headworks screens out any trash, rags, and debris as well as eliminating all grit before it enters the treatment process. By eliminating this debris, the headworks protects the operation of downstream equipment and enhances the efficiency of the water treatment process. The headworks is the original 1987 structure. The rehabilitation will consist of replacing the mechanical screen and grit system, control panels, electrical lightening protection and structural concrete improvements. The project will also elevate critical equipment to an elevation of 12 feet to ensure operational integrity of the headworks in the event of a Category 1 or 2 storm surge event.



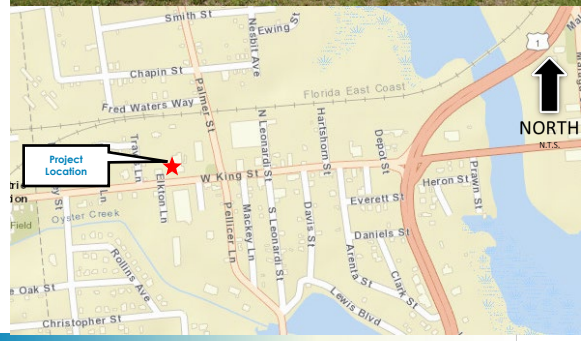
Project Cost:	$4,000,000
Project Funding :	2022 Loan
Project Duration:	12-16 Months/ 2022-23
Project Status:	Pre-Construction

CIP Project Information

Water Treatment Plant High Service Pump Motor Control Center and Emergency Generator Replacement

The Water Treatment Plant's (WTP) High Service Pump (HSP) Motor Control Center (MCC) is one of the most critical components for delivering potable water to the distribution system. The existing MCC has reached its end of life and does not provide fail safe distribution of potable water in the event of a power outage or surge. This project will completely replace the existing MCC and will be housed inside a climate-controlled environment. Variable frequency drives, programmable logic controllers and human machine interfaces and control panels with annunciators, alarms, cable, and conduit will be installed. Additionally, a new emergency generator will be installed with an automatic transfer switch.

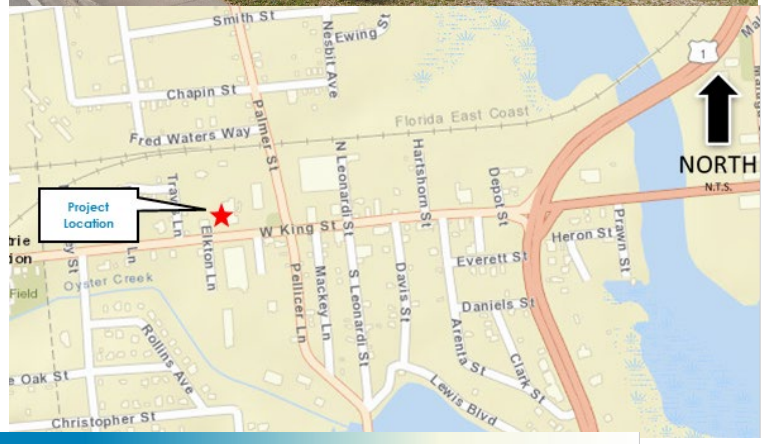
Project Cost:	$1,500,000
Project Funding:	Loan 2022
Project Duration:	9-12 Months/2022-23
Project Status:	Ready for Solicitation



CIP Project Information

Water Treatment Plant Optimization

The City has been in a pilot program to test free chlorine for maintaining residual water distribution system instead of the historically used chloramine. FDEP approved the pilot program and has extended it. Data collected during the pilot program showed promising results with respect to residual chlorine at the end of pipeline while maintaining compliance with disinfection byproduct limits. The City wants to evaluate current operational strategies including those in use prior to the free chlorine pilot program. In addition, the City wishes to develop an Operating Plan moving forward that includes the use of free chlorine disinfection, and to enhance the operating staff's capabilities to understand the operating plan and adjust the plan in response to changing conditions.

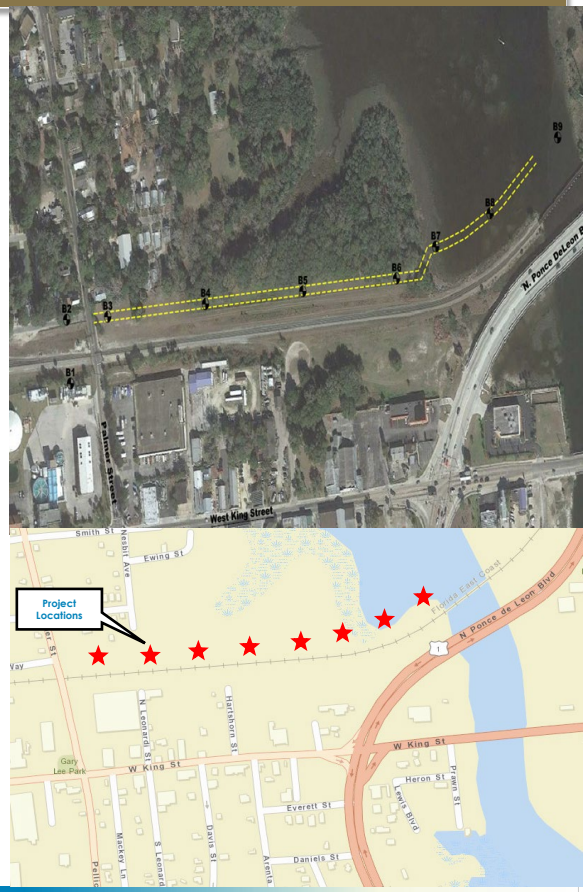


Project Cost:	$70,830
Project Funding :	Utility Fund
Project Duration:	260 days / 2022-2023
Project Status:	Preparing Work Order

CIP Project Information

Water Treatment Plant Reverse Osmosis (RO) Outfall Pipeline

The Water Treatment Plant (WTP) Low-Pressure Osmosis (LPRO) Plant produces approximately 300,000 gallons of brine concentrate per day. The brine is currently discharged to the City's Sanitary Sewer System and treated at the WTP. The City has plans to expand the LPRO production which will ultimately produce up to 700,000 gallons of brine concentrate per day. To eliminate disposal of the brine to the WWTP, the City is permitted to construct an outfall pipe to the San Sebastian River for brine discharge. The project will eliminate the need to treat and send the brine to the WWTP. Additionally, the project will increase the overall capacity of the WWTP.

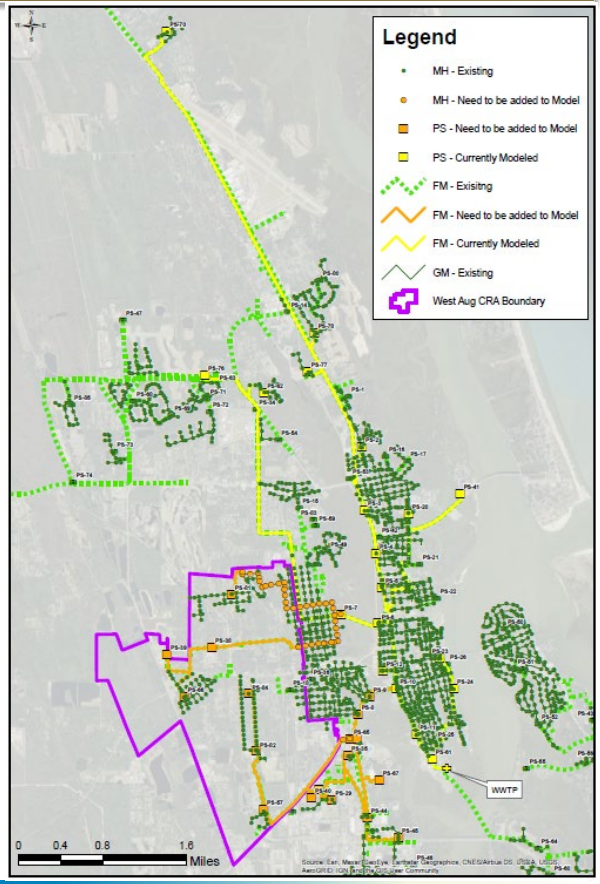


Project Cost:	$2,000,000
Project Funding :	2022 Loan
Project Duration:	9-12 Months/2022-24
Project Status:	Ready for Solicitation

CIP Project Information

West Augustine Gravity Sewer Master Plan

A Wastewater Master Plan (Master Plan) for the West Augustine is being developed because many of the area residences and businesses are served by on-site septic systems. The primary goal of the Master Plan will be to provide a guide for a planned wastewater collection system that may be constructed in phases with associated costs that can support requests for funding from various loan or grant agencies. The ultimate goal of providing a City wastewater system to the area will be to improve water quality, community health and quality of life.



Project Design:	$68,125
Project Funding:	CoSA
Project Duration:	2021-2022
Project Status:	In Progress

CIP Project Information

West 3rd Street Gravity Sewer Improvements

The West 3rd Street gravity sewer improvements will be an extension of the existing gravity sewer main. Improvements to the watermain include replacing the existing 2-inch watermain with a 6-inch watermain and tie-in existing watermains to continue a loop system. There will be 28 existing residential homes converted from septic to sewer.

Project Design:	$59,888.00
Project Construction:	$1,174,971
Project Funding:	FDEP Grant/ARPA
Project Duration:	18 Months (2021-2023)
Project Status:	Design

GLOSSARY OF TERMS

ARPA- American Rescue Plan Act

CCTV- Closed Circuit Television

CI- Cast Iron

CIP- Capital Improvement Plan

CSRM- Coastal Storm Risk Management

CoSA- City of St. Augustine

FDOT- Florida Department of Transportation

FIND- Florida Inland Navigation District

FEMA- Federal Emergency Management Agency

HMGP- Hazard Mitigation Grant Program

CITY OF ST AUGUSTINE EST. 1565

GLOSSARY OF TERMS (Cont'd)

HSP- High Service Pump

I & I- Infiltration and Inflow

LPRO- Low-pressure Reverse Osmosis

MCC- Motor Control Center

PVC- Polyvinyl Chloride

SCADA- Supervisory Control and Data Acquisition

USACOE- United States Army Corps of Engineers

VIC- Visitor's Information Center

VCP- Vitrified Clay Pipe

WWTP- Wastewater Treatment Plant

WTP- Water Treatment Plant