



The Department of Environmental Services 1st Quarter Report FY2023-24



"Committed every day to building a better community through reliable infrastructure and exceptional service."

Randy J. Coslow, P.E.
City Engineer & Director of Environmental Services

PUBLIC WORKS ACTIVITIES AND PROJECTS

Stormwater Maintenance Activities

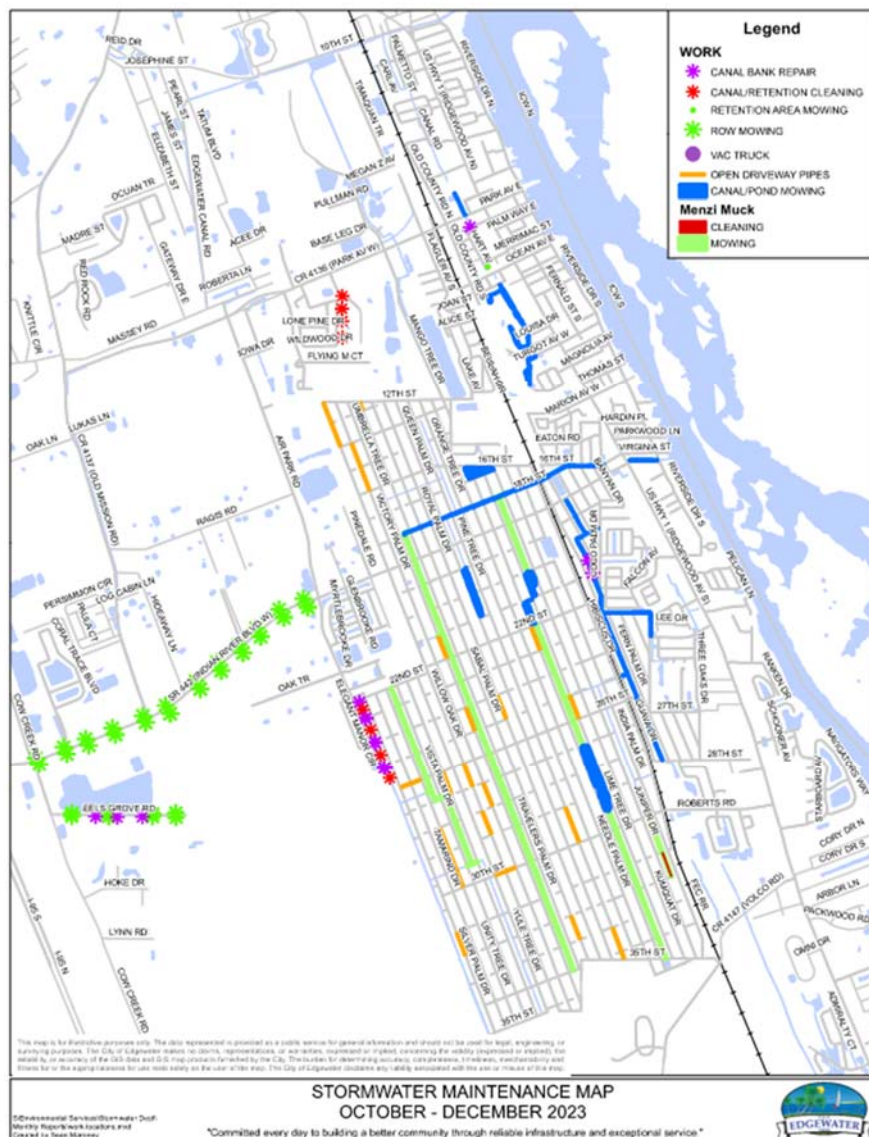
Background

The City of Edgewater is home to a complex network of canals that serve as a vital component of the drainage system for the community. Proper canal maintenance is essential to ensure the waterways remain safe and functional.

Canals are an essential component of Edgewater's infrastructure. They provide an efficient means of managing stormwater runoff, which is especially important in Florida's wet climate. By directing excess water away from residential areas and roads, canals help prevent flooding and reduce the risk of property damage.

The maintenance activities represented below were carried out and completed by the Public Works Division in the First Quarter of FY2023-24. This is shown in Figure-1.

Figures-1
Stormwater Maintenance Effort



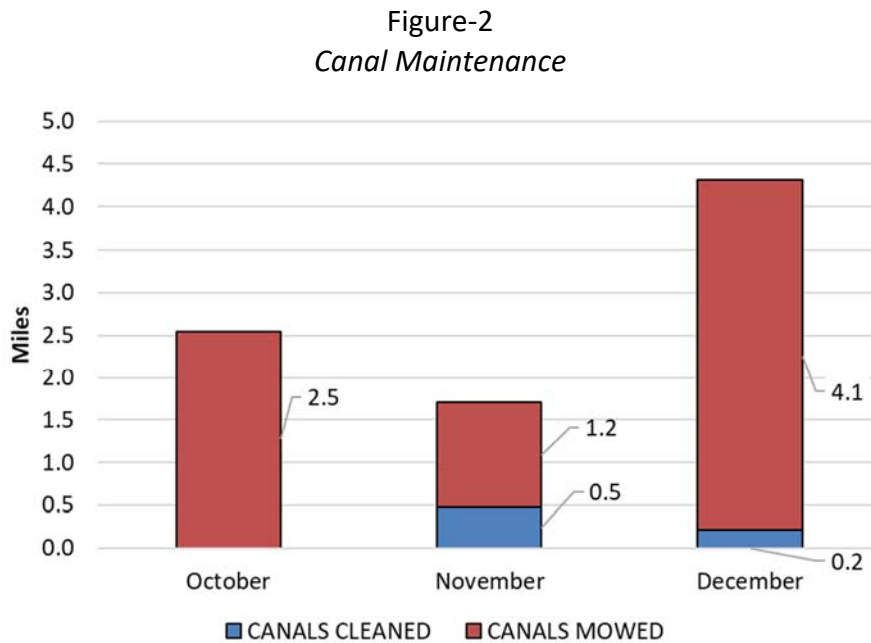
Key Performance Indicators (KPI)

KPIs or key performance indicators, are quantifiable measures of performance over time for a specific objective to pursue continuous improvement. Our specific KPIs provide targets for our teams to shoot for, milestones to gauge progress, and insights that help us make better operational decisions.

This Quarter’s KPIs concentrate on the following maintenance and operational activities.

Stormwater

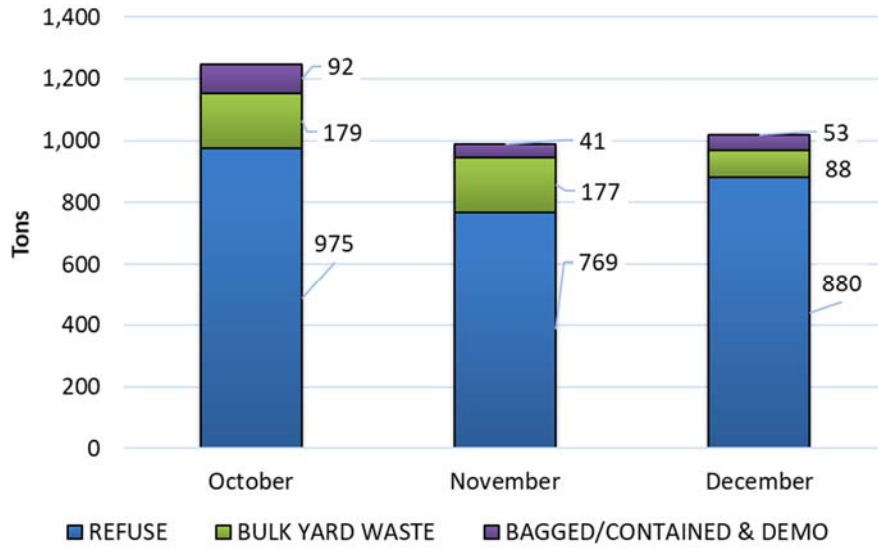
Figure-2 shows the quarterly canal cleaning and canal mowing in miles. The Stormwater Division mowed 7.9 miles and cleaned 0.7 miles.



Solid Waste

Figure-3 shows the KPI values of solid waste collection during the Quarter. The Division collected 2,625 tons of Refuse, 444 tons of Bulk Yard Waste, and 185 tons of Bagged/ Contained. The City’s recycling contractor collected a reported 631 tons of recyclable materials or approximately 27% of the total solid waste collected for the Quarter.

Figure-3
Collected Solid Waste



Fleet

The Fleet Maintenance Division accomplished 213 repair orders during the Quarter. Applying a Prato analysis to the total repair orders, Police, Refuse, Stormwater, Fire, and Parks & Rec contributed 76% of the total or 161 repair orders. This is shown in Figure- 4. Figure-5 also shows the total fleet repair orders for each group.

Figure-4
Prato Analysis of Repair Orders

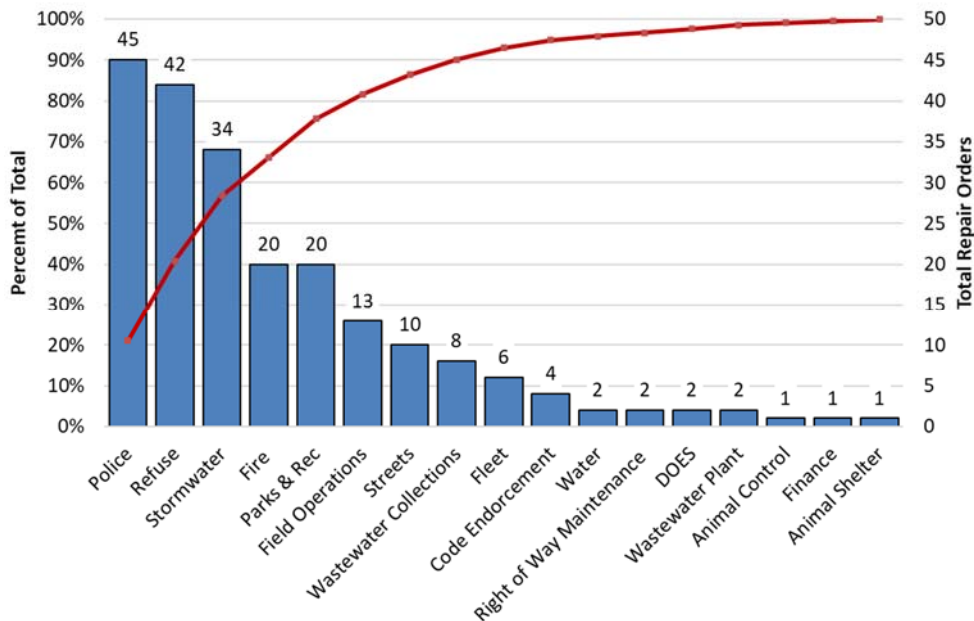
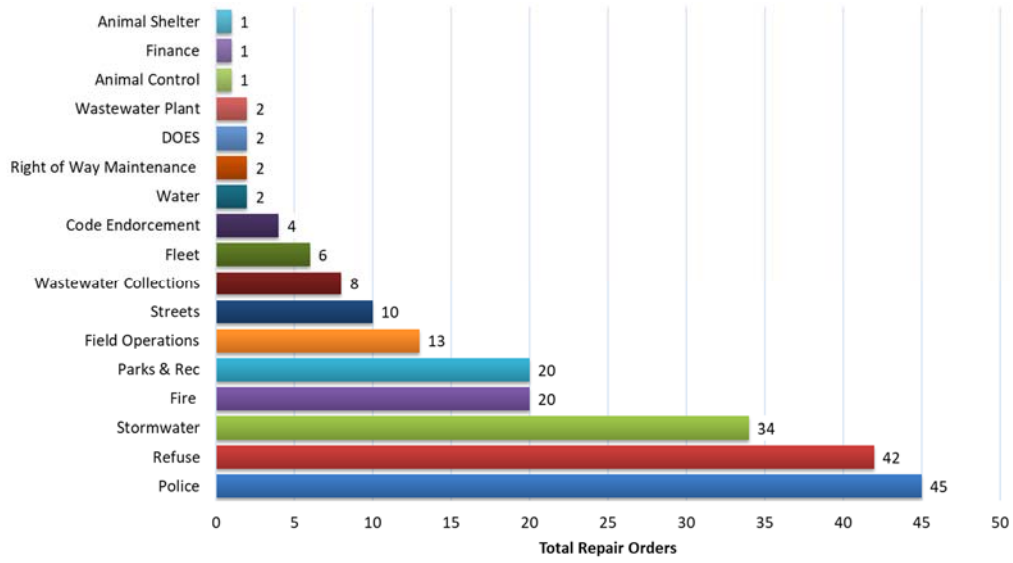


Figure-5
Repair Orders



Public Works Projects

Resurfacing and Dirt Road Reduction

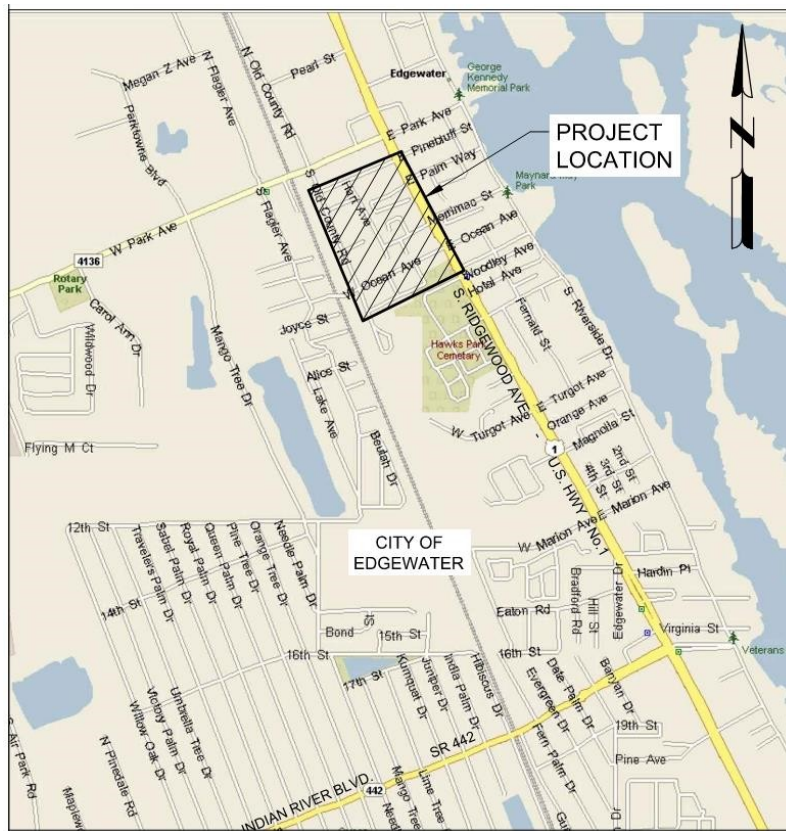
The Public Works Division employs several pavement preservation strategies. These include overlay, mill & overlay, micro-surfacing, and asphalt rejuvenation. It is anticipated that during the second quarter of Fiscal Year 2023-24, the Division will mill & overlay approximately .9 of a mile of Willow Oak Dr. from 12th Street to S.R.- 442, as shown in Figure-6.

Further, to continue the Council’s effort to reduce the City’s unpaved roads and in turn reoccurring maintenance costs, the Division will also provide oversight of the application of an alternative service treatment, called chip-seal to approximately 1.08 miles of unpaved roadway during the second quarter of FY23-24. This is shown in Figure-7. Dirt road reduction is anticipated to begin by the end of February, possibly the beginning of March.

Figure-6
Resurfacing



Figure-8
Project Limits



Financial

- Estimated Project Costs-
- Mead & Hunt- project design - \$135,700
- Fred Fox- grant administration - \$144,000
- Inlet Title- 405 Hart Ave. and easement acquisition - \$205,800
- CPH- CEI services - \$229,700
- Mead & Hunt- engineer of record services - \$12,900
- GPS Civil Construction, Inc. – construction contractor - \$3,030,300

Grants were also used to augment the completion of the project-

- The Florida Department of Economic Opportunity (FDEO) executed the agreement for the Community Development Block Grant Program-DR (Hurricane Irma) for \$1,821,734
- Federal Emergency Management Association’s (FEMA) Hazard Mitigation Grant Program (HMGP) Grant - Phase I of house acquisition - \$22,500

Status and Accomplishments

- The stormwater portion of the project is complete.
- Field Operations are changing out meters to make the switch to the new waterlines.
- Staff is currently working towards final project reimbursements from the Florida Department of Economic Opportunity (FDEO) grant.

G-2 and G-11 Canal Improvements Project

The Florida Department of Economic Opportunity (FDEO) opened up a second cycle of the Community Development Block Grant Disaster Recovery (CDBG-DR) program for infrastructure improvements related to damages from Hurricane Irma.

On June 30, 2020, the City applied for \$14.7 million grant funding for a project to 1) prevent storm surges from the Indian River from traveling back up the canal and flooding homes, 2) construct stormwater pump stations to reduce flood stages between US-1 and the railroad tracks between 10th Street and Marion Avenue, and 3) construct additional stormwater storage ponds along the G-2 and G-11 canals.

Financial

- Mead & Hunt - Conceptual Design for DEO Application - \$12,944
- Notice of Intent to Award letter was received from DEO on January 22, 2021, for \$14,697,665

Status and Accomplishments

- Mead & Hunt, the Design Engineer is preparing design alternatives for the project, including hydraulic modeling. Their first deliverable is due in the first quarter of FY23-24.
- On December 21st, staff met with Mead & Hunt to discuss their data collection and hydraulic modeling.
- At the February 5th City Council meeting, staff will present an overview of the preliminary findings of the data collection and hydraulic modeling.

Travelers-Umbrella and Unity-Vista Canal Armoring Project

In April of 2022, the City Council approved a design proposal from ECT, Inc. to design canal bank armoring solutions for two segments of the Florida Shores canal network. In the course of initial project meetings, including a pre-application meeting with St Johns River Water Management District, additional areas were added to the design and more in-depth analysis was determined needed for a sustainable design.

The two segments of the Florida Shores Canal system:

1. Travelers-Umbrella Canal from S.R.-442 to 1800 Travelers Palm Dr. (+/- 800 LF)
2. Unity-Vista Canal from 22nd Street to 2623 Unity Tree Dr (+/-3,000 LF)

Financial

- ETC Inc., Design Engineering and Construction Document Preparation - \$159,220

Status and Accomplishments

- On November 15th, staff met with the City's selected design engineer, ETC, Inc. for the review of the 75% project plans.
- ECT, Inc. is currently working on the project's construction cost estimates and finalizing the bid package for its advertisement.

Duck Lake Outfall Project

In June of 2023, City staff requested a proposal from the engineering firm Halff, Inc. under the terms of the City's continuing services contract for the engineering design, permitting, and construction

documents preparation for stormwater drainage improvements. The proposal is to design a new control structure and outfall pipe along Lime Tree Drive. This project will require permitting through the St Johns River Water Management District and potentially other regulatory agencies.

Financial

- Halff Inc. - Engineering design, permitting, and construction documents preparation - \$137,100

Status and Accomplishments

- City staff has received and reviewed the 60% plans from our consultant, Halff Engineering.
- On January 11th, staff reviewed comments with the engineering design consultant.

UTILITIES ACTIVITIES AND PROJECTS

Key Performance Indicators (KPI)

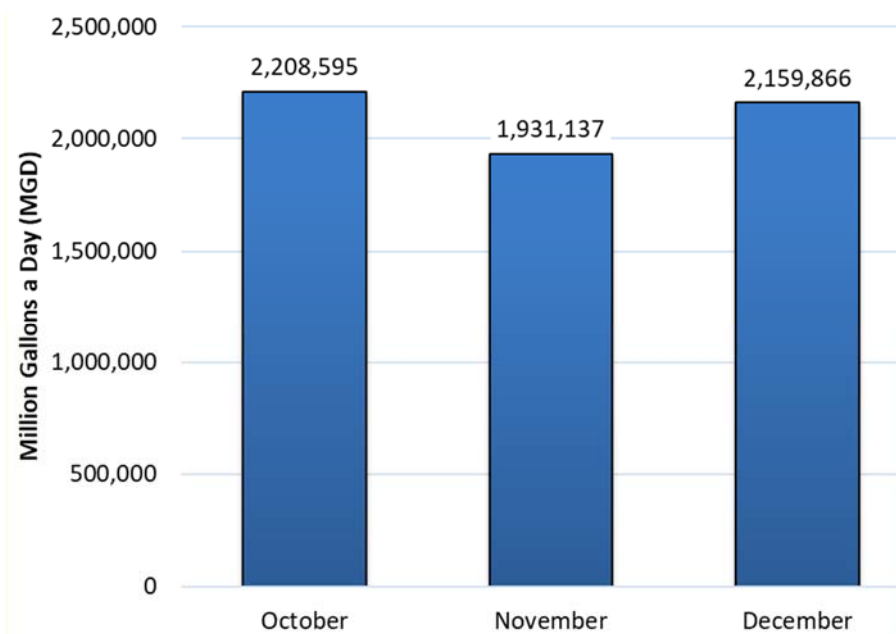
KPIs are quantifiable measures of performance over time for a specific objective to pursue continuous improvement within the Utility Division. Specific KPIs provide targets for our utility and plant teams to achieve, milestones to gauge progress, and insights that help us make better operational decisions.

This Quarter's KPIs concentrate on the following maintenance and operational activities.

Water Treatment

During the Quarter, the Water Treatment Plant pumped a reported 198,814,282 gallons of finished water to the City. This is an average of 66,271,427 gallons per month, or 2,161,025 a day. Figure-9 shows the water pumped to the City by month for the Quarter.

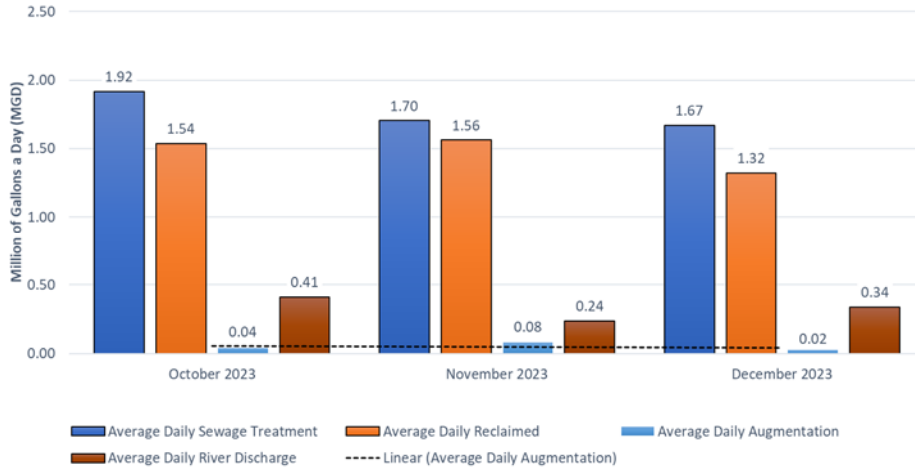
Figure-9
Water Pumped to the City



Wastewater Treatment

Figure-10 shows the daily averages of several KPIs associated with the Wastewater Treatment Division for the Quarter, by month. The Division averaged 1.76 million gallons a day of sewage treated, 1.47 million gallons a day of daily reclaimed processed, 0.05 million gallons a day of reclaim augmentation, and 0.33 million gallons a day of river discharge.

Figure-10
Wastewater Treatment & Reclaimed



Field Operations

During the Quarter, Field Operations responded to 2,538 Service Calls, or an average of 846 per month. This calculates to roughly 195 a week.

Figure-11 also shows several other KPIs. These include 104 new water connections, 61 reclaimed water connections, and 100 new sewer connections. The Division completed 121 water meter change-outs and 294 backflow devices tested. Figure-12 shows the monthly totals for water meter change-outs and Figure-13 shows the monthly totals for backflow devices tested.

Figure-11
New Connections

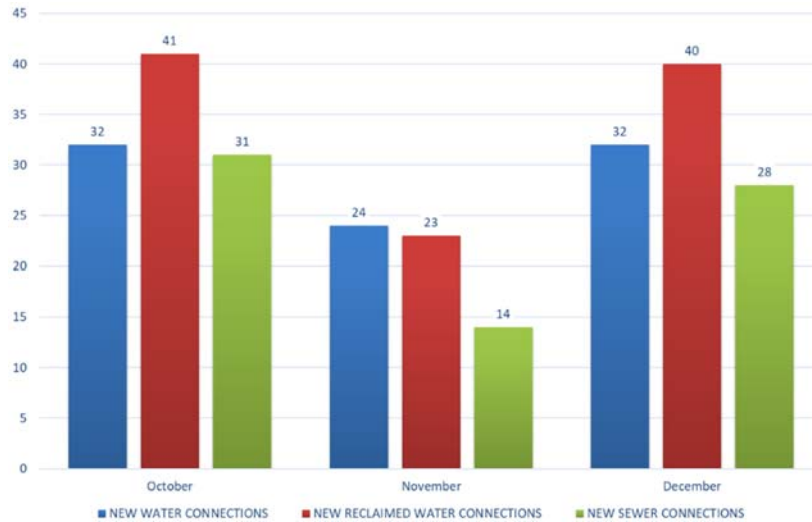


Figure-12
Water Meter Change-Outs

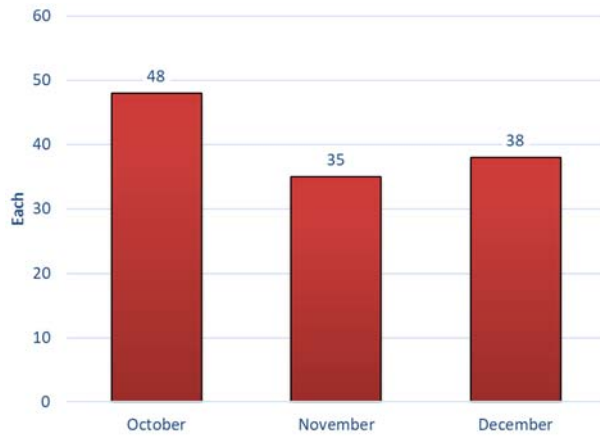
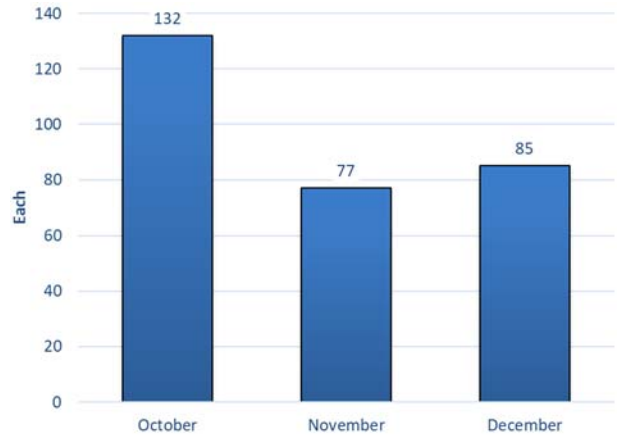


Figure-13
Backflow Devices Tested



Utility Projects

Two-Inch Galvanized Water Line Replacement Program

The city owns approximately 15 miles of water mains constructed of galvanized iron pipe, all two-inch in diameter. These galvanized lines were installed in the early 1960s and are at the end of their useful life.

In February 2020, a proposal was requested from one of the City's continuing consultants, Halff Associates, Inc., for surveying and engineering design, permitting, the preparation of bid documents, as well as project and construction administration to create a project for a two-inch water line replacement.

ThadCon, LLC was awarded the project construction contract during the March 7, 2022, City Council meeting following a competitive bid process, as they were the lowest responsive bidder. Figure-13 shows the limits of the project.

Figure-13
Project Limits



Financial

- Halff Associates, Inc. - Design Engineer - \$125,620
- FY2022 Construction Funding - \$1,029,200
- ThadCon, LLC – Construction - \$1,040,020 original contract amount

Status and Accomplishments

- Construction of 2.1 miles of replacement and upgrades began in June 2022
- All areas of the project have been cleared by the Florida Department of Health. City staff continues to install new meters and making the switch over to the service lines.
- All driveway aprons have been repaired and sod restoration is complete.
- Of the 269 services within the project limits, City staff has made approximately 90 new connections, or approximately 34% of the total.
- It is estimated that the project, including meter change-outs by City staff, will be finished in the Second Quarter of FY23-24.

Lift Station Rehabilitation

Lift Station #11 (serving the Wildwood Subdivision on West Park Avenue)

The construction of Lift Station #11, situated at 3 Wildwood Dr., dates back to the late 1970s. Although some of its components and the pump have been replaced over the past six decades, the station has surpassed its expected lifespan, making it necessary to undergo a complete refurbishment. As part of this renovation, a diesel-driven bypass pump will be installed to ensure uninterrupted station operation during power outages.

Financial

- Mead & Hunt – Design Engineer - \$55,153
- Estimated Construction cost - \$472,450

Status and Accomplishments

- City Council awarded the design project at the May 2, 2022, City Council meeting.
- The City has received 100% Design drawings and they have been reviewed by City staff.
- Construction documents are prepared and the associated solicitation was advertised in December, with the bids opened on January 10th.

Park Avenue Booster Pump Station

The objective of this project is to enhance the existing Park Avenue Booster pump station, which is situated at the site of the former Park Avenue Water Treatment Plant (WTP) in the City of Edgewater. This new pump station will be a replacement for the current high-service pump station, which is the only functional component of the old Park Ave WTP that remains in use after the current water treatment plant was constructed in 1993. The plan for this project involves demolishing all existing WTP buildings and their components situated to the east of the storage tank. A new pump station building will be installed directly west of the existing storage tank, featuring three (3) high-service pumps. Once the new pump station is fully operational, the old pump station will be taken offline and the buildings demolished. The outcome of this project will be a new and improved pump station while also creating open space to the east of the ground storage tank for the future needs of the Department.

Financial

- Mead & Hunt - Design Engineer Cost - \$183,873

Status and Accomplishments

- The City has received 90% Design drawings and reviewed them with a few comments. They have been resubmitted to the design engineering firm for final changes.
- The Department anticipates receiving bid-ready plans and documents to be delivered from the consultant in the first quarter of FY23-24.
- Due to the recent rise in construction costs, the engineer will be assisting the City in acquiring an SRF loan for the construction of this project.

Park Ave Water Main Relocation

Kimley-Horn and Associates have been hired by the City of Edgewater to provide design services for the replacement of the 6-inch water main along the western ROW of US-1 at the Park Avenue intersection. The intersection of Park Avenue and US-1 is the location of a roadway expansion project being undertaken by the Florida Department of Transportation (FDOT), where the existing 6-inch water main and two corresponding valves conflict with the proposed FDOT infrastructure. Kimley-Horn's responsibility is to design the removal and replacement of the current 6-inch water main and valves located in the intersection and along US-1.

Upon further investigation, it was determined most appropriate to expand the scope to relocate all water mains away from the US-1 right-of-way at the Park Avenue intersection, replacing them with a new 12-inch water main installed along Whetzel Street, Western Avenue, and Wilkinson Avenue.

Financial

- Kimley-Horn and Associates, Inc. - Design Engineer Cost - \$18,500
- Kimley-Horn and Associates, Inc. - Additional Engineering - \$55,000
- GPS Civil Construction, Inc. - Construction Cost - \$664,550

Status and Accomplishments

- The Bonds and Material Submittals have been received and reviewed by the City and engineers for the project. The Preconstruction meeting was held at City Hall on 09/11/23 with GPS Civil and Kimley-Horn.
- The construction is scheduled to begin on January 24th.

Meter Replacement Program

In 2005, all of the City's existing water meters were replaced at one time, replacing the previous manual-read meters with drive-by radio read transmitters. This batch of meters has exceeded their useful life. To avoid repeated large expenses, Staff has organized an ongoing meter replacement program, with the new meters being connected to a continuous remote monitoring network. This multi-year project provides real-time data for staff and ultimately customers to view consumption and find leaks promptly.

Status and Accomplishments

- New IPERL water meters and transmitters are being installed over the next several years.
 - Meters left to be upgraded – Approximately – 4,200
 - Transmitters left to be installed – 6,500
- Meters are being installed – The areas of focus for new IPERL and VFLEX AMI upgrades are first associated with “dead” or non-reading meters, then two-inch galvanized water line upgrade and Hart Avenue Project areas when switching service lines to the newly installed water mains.
- Over 5,037 (43%) accounts are now fully integrated into the Sensus AMI system. There are another 2,900 IPERL meters that have been installed over the years using the drive-by radios which will need to have their transmitters replaced to fully integrate them to remote read capability. While this is very time-consuming, staff has determined that the best route to take is to continue using in-house staff to retrofit these water connections.

- Material delays from the manufacturer have impacted the availability of brass connectors for meters. There is now a total of 2,964 ¾ inch meters on backorder. Additionally, the City has 3,900 single-point MXU Transmitters on backorder. Staff must ensure that sufficient meters are available for new construction as well as to continue progress on the replacement program.
- Supply chain issues for microchips continue to slow the delivery of meters and MXU Transmitters. This is an industry-wide issue and is not unique to only this vendor and supplier.

ADMINISTRATIVE PROJECTS/ACTIVITIES

Public Works Facility

Background

The City acquired property at the north end of Dale Street in the Parktowne Industrial Park for \$1,200,000 on January 16, 2015.

The City sold 16.88 acres to Northwest Lineman College for \$381,488.00 on June 28, 2016.

FDOT funded the construction of a segment of the SunTrail network along the western and northern property lines of this City parcel in 2016, being a part of the Coast-to-Coast Connector network and the St. Johns River-to-Sea Loop network of Showcase Trails.

A 2-acre reclaimed water storage pond was constructed in 2020 to reduce reliance on the City's River discharge.

Financial

- Schenkel Shultz Architecture
 - \$350,000 – Phase I – Planning and Schematic Design
 - \$1,640,000 – Phase 2 – Architectural, interior design, civil, structural, landscape, irrigation, land surveying, environmental engineering, mechanical electrical, plumbing, fire protection, security and communications, and grant coordination

Status and Accomplishments

- Department staff in cooperation with the project's design engineer has crafted a phased project strategy. Phase I addresses current critical operational needs which will occupy approximately 25% of the total project. Phase II will address the remainder of the project's proposed operational needs.
- City staff continues to coordinate and work with the design consultant toward the development of 100% plans for Phase I. All appropriate permits were filed with FDEP and the SJRWMD.
- Through the FY23-24 City budget ratification, the City Council authorized financing the first construction phase of the Public Works Complex to be built off of Dale St.
- Solicitation of the Project's Construction Manager at Risk (CMAR) will soon be advertised.

Trail – Oak Hill to West Park Avenue

FDOT has completed a Project Development & Environment (PD&E) Study for a St. Johns River to Sea Loop trail route from US 1 and Kennedy Parkway to Dale Street. The City has hired a consultant engineer to design the trail from Roberts Road and US 1 to Dale Street which will tie in with the existing trail near Rotary Park. FDOT has provided funding of \$2,349,000 for this design work.

Status and Accomplishments

- Design for the project continues, with 60% of plans due from the design firm in October 2023.
- An easement has been acquired for the purpose of installing a portion of sidewalk adjacent to Dale St.
- On October 19th, City staff reviewed the 60% plans with a consultant.

- On October 27th, the plans were submitted to FDOT.

Southeastern Utility Service Area Agreement with County

Departmental staff met with Volusia County Utilities staff to discuss mutual goals and how to interact with the increasing development interest of our ISBA and the County.

This agreement outlines the Utility Service Areas of the County and City. Some of these areas currently overlap and the intent is to mutually agree on boundaries for retail services in Southeast Volusia. The County and City staff have revised the agreement and associated documents several times over several years.

Status and Accomplishments

- The Environmental Services Director has met with the Director of Water Resources and Utilities for Volusia County to begin drafting a new Interlocal Agreement for Utilities. One core feature of the new agreement will be a clear line of demarcation between Edgewater and Volusia County utility service areas in the vicinity of Ariel Road.
- In November 2023, the Environmental Services Director created and submitted a draft Interlocal Agreement to the TRC, seeking comments and feedback. The received comments were integrated into the draft and readied for review by the City Manager, before progressing further.

NEW EMPLOYEES, CERTIFICATIONS, LICENSES, TRAINING, MEETINGS, & WEBINARS

New Employees

Environmental Services welcomed the following new employees for the Quarter:

- Cornelius Lee- Refuse Equipment Operator 12/26/2023
- Catherine Kuhn- Refuse Equipment Operator 12/18/2023
- Tabitha Tice- Refuse Equipment Operator 11/20/2023

Promotions and Transfers

- Tom Hartman- Wastewater Maintenance Tech to Wastewater Collections Superintendent 12/11/2023
- Calvin Oldham- Distribution System Operator 3 to Lead Operator 11/27/2023
- Ronnie Hill- Cross Connection/Reclaim Water Inspector to Water Quality Tech 11/13/2023
- Justin Weiss- Water Plant Recruit to Water Plant Trainee 11/06/2023
- Toni Henry- SWM Equip Operator to PW Specialized Heavy Equipment Operator 10/29/2023

Certification, Licenses, Training, Meetings, & Webinars

- Tanner Redd- Backflow Repair Certificate
- Tanner Redd- Class C Distribution Certification
- Justin Weiss- Water Treatment Plant Class C
- Derrick Perry- Wastewater Collections C course
- Rusty Boyer- Recertification Spraying License
- Grant White- Certificate of Training for OSHA Level II
- Tommy Smith- Recertification of Florida Storm Water Association
- Jay Reinwald- Wastewater Collections C course
- Katie Williams- Wastewater Collections C course

EDUCATIONAL OUTREACH (RESIDENTS & EMPLOYEES)

- “Scoop the Poop” educational program-provided educational items and/or flyers:
 - Fall Festival – EdgeFest Event 10/28/2023
 - Kid City – Educational Presentation 11/21/2023
 - Kid City – Educational Presentation 11/22/2023
 - Pens and pencils were provided to City Hall and Environmental Services Front Office
- Provided Environmental giveaways (bags, pencils, pens, key rings, waterbottles, folders, coasters, sticky notes, Frisbees, hand sanitizer, etc.) to the following:
 - Kid City – Educational Presentation 10/28/2023
 - Kid City – Educational Presentation 11/21/2023

- Kid City- Educational Presentation 11/22/2023
- Pens and pencils were provided to City Hall and Environmental Services Front Office
- Community On the Edge – provided environmental articles/holiday schedules, etc.
- Newsletter – provided environmental articles/holiday schedules, etc.

Departmental Safety Meetings

- December – Celebration of Employee’s
- November – Aflac Presentation
- October – Fighting Fatigue in the Workplace