



Public Works Monthly Executive Summary December 2023

Street Department

During the month of December, The Street Department has been busy throughout the city. Additional activities included:

- Trim back limbs and vegetation on the city rights-of-way.
- Clean storm drains City Wide.
- 1 Silt Fence inspections.

The Street Department completed 36 additional work orders that pertained to street and stormwater issues.

Parks Department

During the month of December, the Parks Department mowed, trimmed, and edged all areas one time including the DOT rights-of-way, all City rights-of-way, City Parks, and FCT property. Additional activities included:

- Monthly playground equipment inspection and necessary repairs.
- Prepare the City for the Christmas season, Christmas on Walnut Street and Parade.
- Cleaned the pool 3 times.

The Parks Department completed 2 additional work orders outside of their normal daily work schedules.

Equipment Maintenance

The Equipment Maintenance Shop, as always, works hard to keep the equipment and vehicles going so the city can continue to provide our citizens with the exceptional service they are accustomed to. During the month of December John and Donald completed **55** work orders.

Tradesworker

During the month of December **22** work orders were completed.

Solid Waste Department

Cove Life, Litter Cleanup Program & New Services:

- Picked up everything around the rollout cans.
- Picked up as much loose trash, palm fronds, and sticks as possible on the streets, along the R.O.W. and ditches regardless of if it is near a container or not.
- Delivered 2 trash cans and 2 recycle bins to new customers.
- Delivered 4 recycling bins to current customers.
- Repaired 2 trash cans.
- Replaced 10 trash cans.

This month December, the city collected:

- **386.85** tons of Class I garbage (15% increase)
- **18.29** tons of recycling (9% decrease)
- **74.38** tons of yard waste (50 % decrease)
- **86.86**tons Sludge
- **0** tons Street Sweeping
- **5.37** tons of white goods and other junk.

For comparison during December2022, the city collected:

- **336.50**tons of Class I garbage
- **20.16** tons of recycling
- **147.98**tons of yard waste
- **5.79**tons Sludge
- **0** Street Sweeping
- **16.07 tons** of white goods and other junk

Water/Wastewater

- W/WW crews/management had personal interaction with several citizens regarding water/sewer issues.
- Contacted all customers on water and irrigation “Highest Users” report that had unusual consumption (not usually on report)
- Staff continues to refine the scope and financials of the consolidated AWWTP, expanded reclaimed water system, wastewater collection system improvements and water system capital improvements to obtain maximum grant potential, optimize loan conditions and minimize impact to customers.
- W/WW/RW Projects;
 - Design of the improvements to the city’s wastewater treatment system (all phases) is complete. In order to maximize grant opportunities, the initial construction phase was split into two pieces, for a total of four phases;
 - Phase I is construction of the on-site reclaimed water system (storage tanks, high service pumps, electrical) at the existing Harbor Road Facility, and rehabilitation of Master Lift Stations #2 and #4. This phase went out to bid in January in two parts – plant reclaimed water improvements & lift station #2 & #4. **Construction was completed in June 2020.** The total Phase I cost is \$6,120,600. Staff received \$4,063,425.00 in “Principal Forgiveness” (grant) from FDEP (SRF).
 - Phase II:

- Construction of the new 1.25 million gallon per day (MGD) advanced wastewater treatment plant (AWWTP) at the Harbor Road site. **Construction approximately 85% complete. Contractor has abandoned site and filed for bankruptcy protections. Working with bonding agency to obtain a new general contractor to complete construction.**
 - Phase III:
 - A new force main from Lift Station #2 diverting the sewage from the South Plant to Harbor Road (all sewage generated in the City will be treated at the new Harbor Road AWWTP).
 - Decommissioning and “mothballing” of the South Wastewater Treatment Plant. The permit will remain in place and the plant could be re-commissioned at a later date depending on future activities at the Reynolds site. **Staff has applied for a grant from a new program at FDEP for this construction. This is a grant only. A private loan would be required to pay the balance between grant amount and actual project cost. A full analysis will take place upon results of grant application.**
 - Phase IV (further described below):
 - Design and permitting of a reclaimed water system in the Magnolia Point Development. This project will be necessary to comply with Senate Bill 64, the “Surface Water Discharge Elimination Act” which requires utilities to eliminate wastewater facility discharges to surface waters (rivers, etc.) by 2032.
 - This project will be completed in phases to reduce impact to customers and maximize loan to grant potential.
 - Phase V (future – determined by growth) is a second identical 1.25 MGD AWWTP built at the Harbor Road site. An alternative would be construction of this train at the South Plant site in Reynolds Park if the southern /Reynolds portion of our service territory is where significant growth occurs
 - Phase VI (future – determined by growth) is a third identical 1.25 MGD AWWTP built at the Harbor Road or Reynolds site.
- Sanitary Sewer Evaluation Survey (SSES) of the Core City wastewater collection system is **complete**, including Mittauer final report. Staff utilizes this data daily in evaluating collection system repairs and requests for sewer connections.
- Continuing to work with FDOT and Clay County on utility relocations associated with the First Coast Expressway and Clay County road expansions (CR 315 & CR 209 / Russel Road). Project schedules and designs continue to change. **The relocation of the utilities on CR 209 will not be at the city’s expense as the affected area is in an easement, not in the right-of-way. CR 315 relocation still under review.**
- **Senate Bill 64, The Surface Water Discharge Elimination Act:** In 2021 the Florida Senate approved SB 64, which requires wastewater treatment plants to eliminate surface water discharges by 2035, which has become a significant financial burden to utilities. This requires the city to eliminate effluent discharge from the Harbor Road and South wastewater treatment plants to the St. Johns River. While the city has been implementing reclaimed water projects for several years, there are not enough uses to take all of the city’s treated wastewater.

In November 2021, as required, the city submitted to FDEP a plan as to how surface water discharges will be eliminated. That plan, which is to re-pipe Magnolia Point irrigation to reclaimed water, was approved by FDEP. As Magnolia Point is a large user of potable / aquifer water for irrigation, this project has two benefits – reducing surface water discharges and reducing withdrawals from the Floridan Aquifer for irrigation.

Staff have applied for a loan / grant from the Drinking Water SRF Program for design and permitting of the Magnolia Point Reclaimed Water Project.

Potable Water:

- Staff and Mittauer have completed a full review of the future capital needs of the water system. A comprehensive capital improvement program (CIP) has been developed as part of the Water Master Plan. As in the past, the timing of many of these improvements is driven by future activities in Reynolds Industrial Park and other areas of our service territory. The city has received an FDEP – SRF loan for Planning and Engineering of several of the CIP improvements so that as the need for the improvements occur, the City is ahead of the game and can apply very quickly to SRF for actual construction dollars as “shovel-ready” projects. The total design project cost is \$356,800.00, with a \$178,400.00 (50%) principal forgiveness (grant), leaving an actual loan of \$180,100.00.
- Reynolds Water System Improvements:
 - New water mains along two primary streets to remedy fire hydrants that were inadequate.
 - New 12” water main crossing under SR 16 to replace aging mains that endanger the integrity of the road. This eliminated four existing crossings.
 - New water main along Red Bay Road eliminating existing aging and leaking pipes. In addition remediating fire hydrants that were inadequate.
 - New water main and sewer force main extension from Reynolds Park to and across the MOBRO complex. This extension is designed to supply water, fire protection & sewer needs to MOBRO and future developments to the east.
 - **Completed September 2021**

South Service Territory Improvements:

- New 12” water main loop from US17 along CR 209 S to the existing 12” water main that terminated at 4600 CR 209 S. This also included a new 4” sewer force main from US 17 along CR 209 S to the First Coast Expressway crossing. **Completed September 2021**
- The City has received grants from the State of Florida Hazard Mitigation Grant Program (HMGP) to install auxiliary generators at 17 sewage lift stations, and install generators / raise infrastructure at four additional stations. The grant funds 75% of the improvements. **Approximately 99% complete**
- Continued remediation of malfunctioning or out-of-service hydrants.
- Operated and maintained the Harbor Rd. and South Wastewater Treatment Plants as well as the Harbor Rd. and Reynolds Water Treatment Plants to meet the requirements of Regulatory Agencies.
- Continued to make process control adjustments at the Harbor Rd. and South WWTP in efforts to further lower Total Nitrogen and Total Phosphorus levels being discharged to the St. Johns River.
- Continued landscape maintenance at Water and Wastewater Treatment Facilities as well as lift stations.
- Continued preventative maintenance on all treatment facility generators.
- Completed 2 new services.
- Completed 54 water-related work orders.
- Completed 25 sewer related work orders.
- Responded to 61 utilities locate requests.

TOP 10 WATER CUSTOMERS DECEMBER 2023

Largest (By Consumption)		Largest (By Dollar Amount)	
Rank	CONSUMER	Rank	CONSUMER
1	St John's Landing	1	St John's Landing
2	Sheriff's Department	2	Sheriff's Department
3	Governors's Creek #436	3	Governors Creek #436
4	Kindred Health	4	Clay County Court House
5	Clay County Court House	5	Kindred Health
6	Premier Surface Design LLC	6	Clay High
7	R C Bannerman Learning Center	7	Dreh Holdings LLC
8	Springs Coin Laundry	8	Premier Surface Design LLC
9	Dreh HoldingsLLC	9	Garber Realty/Car Wash
10	Garber Realty/Car Wash	10	Green Cove Springs Distributions

TOP 10 IRRIGATION CUSTOMERS DECEMBER 2023

Largest (By Consumption)		Largest (By Dollar Amount)	
Rank	CONSUMER	Rank	CONSUMER
1	Eco One INC	1	Eco One INC
2	Permabase Building Products	2	Permabase Building Products
3	Vallencourt Construction	3	Vallencourt Construction
4	Magnolia Point Investments	4	Magnolia Point Investments
5	Stephen Williams	5	Mobro Marine, INC
6	Magnolia Point Association	6	Stephen Williams
7	Governors Point Yacht Club	7	AMH Development non Res
8	Hut American Group LLC	8	Magnolia Point Association
9	Mobro Marine, INC	9	Governors Point Yacht Club
10	AMH Development non Res	10	Hut American Group LLC

TOP 10 SEWER CUSTOMERS DECEMBER 2023

Largest (By Consumption)		Largest (By Dollar Amount)	
Rank	CONSUMER	Rank	CONSUMER
1	St. John's Landing	1	Sheriff's Department
2	Sheriff's Department	2	St. John's Landing
3	Governors Creek#436	3	Governors Creek #436
4	Kindred Health	4	Kindred Health
5	CLAY County Court House	5	Clay County Court House
6	Premier Surface Design LLC	6	Dreh Holdings LLC
7	R C Bannerman Learning Center	7	Clay High
8	Spring Coin Laundry	8	Premier Surface Design LLC
9	Dreh Holdings LLC	9	Garber Realty/Car Wash
10	Garber Realty/Car Wash	10	R C Bannerman Learning Center

Wastewater Plant Capacity Status

South Plant: TMDL Capacity 0.350 MGD*,

- Current Loading 0.260 MGD*, 76% Capacity (November 2023 Annual Average)
- Current & Committed (.065) Loading 0.325 MGD*, 93% Capacity
- Current, Committed (.065) & Requested (0.40) Loading 0.362 MGD*, 103% Capacity

Committed flow: Rookery Phase 1 (.065)

Requested flow: Batton Lakes RV Park (0.40)

Harbor Road: TMDL Capacity 0.650 MGD*

- Current Loading 0.497 MGD*, 77% Capacity (November 2023 Annual Average)
- Current & Committed (0) Loading 0.497 MGD*, 77% Capacity
- Current, Committed & Requested (0) Loading 0.497 MGD*, 77% Capacity

*MGD = Million Gallons per Day

Note: No Reynolds growth or loading projections included in above.