



City of Marco Island

MEMORANDUM

Date: July 8, 2024

To: City Council

Through: Michael A. McNees, City Manager

From: Justin Martin, P.E., Director, Public Works

Subject: Public Works Departmental Report – June 2024

The City's public works department has 13 dedicated employees that administer, repair, and maintain the city's public infrastructure including traffic signals, streetlights, roads, sidewalks, swales, street signs, stop signs, median landscaping and irrigation, city street trees, storm sewer drainage, and bridges.

The following summarizes the department's notable activities over the month of April:

Flooding

The City received over 14 inches of rain over three days in mid-June. The public works department noted numerous areas of localized flooding. The map on the right indicates the noted problem areas. The areas in **red** indicate the worst flooding. As a result, Public works prioritized S. Barfield Dr. for flooding remediation in FY25. The flooding was compounded by high tides. Some areas drained more slowly than others. The worst flooding areas are as follows:

1. S. Barfield Dr.
2. Seaview Ct.
3. Honduras Ave.
4. Windward Dr.

Public Works will use the flooding observations to prioritize future drainage improvements.





S. Barfield Dr.



Seaview Ct.



Honduras Ave.

N. Barfield Shared Path

The contractor is making steady progress on the construction of the new 8ft. wide shared path on N. Barfield Dr. between N. Collier Blvd. Concerns of affected homeowners are being addressed in a timely manner. This project is slated to be completed by the end of FY24.





Traffic Signal Posts and Mast Arm Painting

The contractor completed the painting of the posts and arms at the Bald Eagle Dr./Collier Blvd. intersection. Public Works contracted the re-painting of the W. Elkcarn Cir./Collier Blvd. posts and arms. The re-painting of that intersection is underway. The San Marco Rd./Collier Blvd intersection is next up.



Advisory Committee Support

In addition to the above projects, PW staff attends and supports the Waterways Advisory Committee, the Beautification Advisory Committee, and the Hideaway Beach Tax District Committee, and the Bike Lane and Shared Path Ad-Hoc Committee including the preparation of meeting minutes, conducting research, updating the city website related to committee functions, coordinating among committee members, and attending additional meetings, and responding to requests.

Water Quality Action Items

The following table lists the water quality action items being considered or performed by the city. The items appearing in gray text are not recommended, not feasible, and not implemented.

WQ Action Item	Cost	Status
dredging	\$30M (\$6M/yr x 5yrs)	coordinated permitting feasibility with FDEP. A pilot program will be presented to council in the FY 26 proposed budget.
inlet side slot filling	\$300/inlet	ongoing: 0 filled in month of June (147 total to date)
Exfiltration swales	\$12M	There are 120 miles of swales in Marco Island. \$1.5M in grant funding has been approved with a 50% city matching funds. New exfiltration swales will be constructed as part of the N. Barfield Shared Path project. Construction plans underway for exfiltration swales on S. Collier Blvd. from Huron Ct. to the end of Collier Ct. More exfiltration swale project designs are on the way. The right of way construction standards manual is being revised to require that exfiltration swales be constructed with new right of way permits.
inlet screens	\$600 ea	ongoing: 218 installed to date. More will be installed as part of the N. Collier Blvd./N. Barfield Dr. intersection improvements project.
rain barrells/gardens	borne by homeowner	add to education campaign for homeowner implementation
seawall denitrification beds	borne by homeowner	not recommended - media can migrate into canals (unintended consequence)
reuse disposal alternatives	\$5M+	not feasible - FDEP will not permit the discarding of reuse water into deep injection well. Defeats the purpose of re-using treated water.
reuse irrigation inspections	included in operating budget	ongoing: city-owned irrigation inspected and repaired by city landscape contractor. Condo HOA's and hotels inspect and repair their systems
reuse educational program	included in operating budget	W&S dept prepared and distributed educational material. Follow up with HOA's annually
golf course irrigation	borne by golf courses	W&S dept coordinated with golf courses regarding irrigation rates. Golf courses effectively manage their irrigation
golf course interconnecting culverts	borne by golf courses	golf course water management systems detain stormwater and irrigation runoff onsite. Discharge to offsite is through outfall weirs. Interconnecting culverts are internal to golf course SWM systems.
Hydrodynamic study for dead-end canal circulation	\$50k	completed in Dec 2023 and presented to council in Jan 2024
Dead-end canal interconnects	\$6M	state legislative appropriation approvals obtained. The first interconnect project has been designed, and bids open in May.
Street sweeper	\$380k	street sweeping program underway
fertilizer education campaign	low	city environmental staff coordinating

fertilizer enforcement	low	ongoing - city code enforcement
fertilizer ordinance revision	low	not recommended - unenforceable
stormwater utility	property owner assessments	requires stormwater system inventory, master plan update, and rate study by consultant. Staff has not received direction from city council to proceed with this.
Alternate water quality plan (4e)	\$50k	Approved by FDEP in Sept 2023. City is proceeding with projects in the plan as indicated in this table.
WQ testing	\$50k/yr	ongoing
WQ monitoring evaluation	\$10k/yr	evaluation being conducted as part of the MS4 permit. PW staff submitted the NPDES Annual Report for the Phase II MS4 permit for year 2 on 2/28/24. FDEP issued comments and city staff subsequently responded to FDEP's comments. Awaiting FDEP final approval.

Permitting Functions

Public works staff reviewed the development and right-of-way permit applications and conducted inspections of the active right-of-way, SDP, and Seawall permits as indicated below.

Reviews

Permit Type	qty
ROW permits (residential)	20
ROW permits (commercial)	6
SDP reviews	2
SEAW Seawall Work	16

Inspections

Type	qty
Residential	129
commercial	0

Infrastructure Maintenance Field Crew Activities

- Swept City Roadways with new street sweeper (198 lane miles swept between 5/20/2024 and 6/7/2024).
- Inspected crosswalks.
- Cleaned storm drain filters, (1851 storm drains cleaned to date).
- Installed temporary AC units in Public Works office trailers.
- Painted stop bars island wide.
- Transported water truck to have new tires installed.
- Replaced rusted storm grate at catch basin on Greenvue St.
- Inspected W. Winterberry bridge with bridge inspector (Public Works flat boat utilized).
- Repaired edge of roadway E. Elkcam Cir.
- Replaced faulty red light at Bald Eagle and Elkcam intersection.
- Cleaned up storm debris from storm on 6/3/2024.
- Removed broken banner arms and banners from storm damage.
- Repaired turtle shields on street light poles at resident's beach area.
- Attended CDL driving school (two employees attended training for licensing).
- Replaced axles and leaf springs on city flat boat trailer.
- Set four message boards for painting of traffic lights on Collier and Bald Eagle.
- Cleaned road kill on Jamaica Rd.
- Changed four solar motor control panels on crosswalks on Collier (water

intrusion damage).

- Inspected standing water complaint at 1682 Briarwood (no issues found, swale driveway).
- Repaired speed limit sign on Worthington street.
- Inspected water complaint on Holley Ct. (no issues found).
- Closed Winterberry beach access due to boardwalk damage.
- Service completed on Kubota side by side.
- Plugged storm drain on Cara Ct., removed river rock from drain area and replaced with sod.
- Inspected storm drain complaint at Key Marco.
- Cleaned large storm pipe on Bald Eagle.
- Repaired waterway sign behind Winn Dixie store.
- Cleaned roadkill on Yellowbird.
- Installed new light sensor covers on solar crosswalk boxes.
- Set up message board for Jolley Bridge (holiday firework message).
- Inspected stormwater complaint at 811 Manor Terrace (no issues found).
- Removed broken tree from right of way at 1193 Winterberry.
- Inspected storm drain complaint at 1368 Jamaica Rd. (no issues found).
- Removed debris from drain box at 820 S. Barfield, flooded street cleared.
- Inspected stormwater complaint on Swallow Ave. (no issues found).
- Inspected stormwater complaint on N. Bahama and Barfield (no issues found, swale driveway).
- Repaired pothole on 198 S. Barfield.
- Inspected stormwater complaint on Trinidad and Jamaica (no issues found).
- Repaired stop sign on Century and Collier.

Stormwater outfall replacement on Chestnut Ct.



Repair of storm drain filter blockage issue on Cara Ct.
Rock removed and replaced with sod.



Stormwater outfall repair due to contractor cable damage.



Storm damage repairs. Turtle shields and signage repaired.

