

STORMWATER DEPARTMENT



**RECENT IPM-RELATED
MAINTENANCE
PROJECTS**

August 2020- February 2021



Vegetation Problems

Reduces
dissolved
oxygen



Increases
muck



Decreased
Biodiversity

Excessive Vegetation degrades valuable habitat by altering physical, chemical and biological characteristics of the system!

Vegetation Problems

Impairs
water
flow



Reduces
storage
capacity

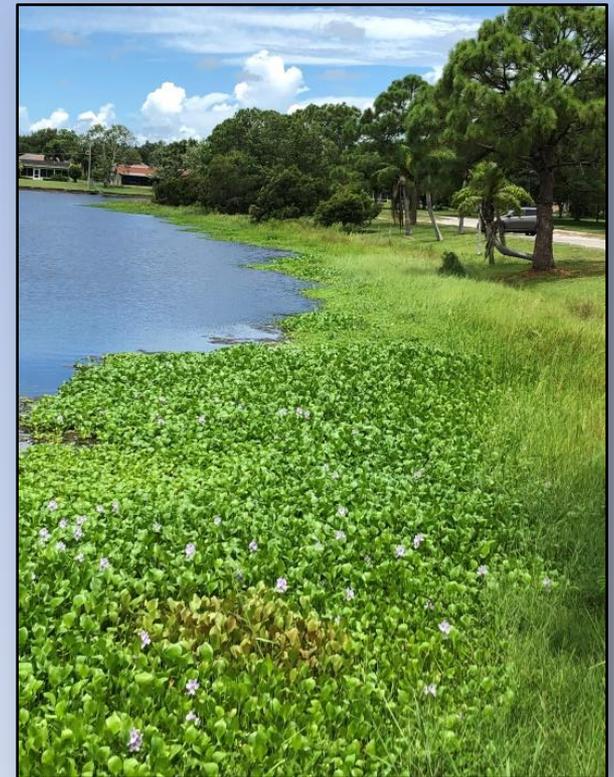


Damages
stormwater
structures



Excessive vegetation can greatly decrease the conveyance system's ability to store and move stormwater.

Hardee Park Canal Project



Invasive, fast-growing, vegetation forming dense mats

Hardee Park Canal Project



Contracted company to mechanically remove vegetation with a Weedoo specialized boat, which piled vegetation on shoreline, which was later removed by dumpster and taken to landfill.

Hardee Park Canal Project



After 6 days, most of the vegetation- only at the canal terminus was removed, however, much of the duckweed remained.



Hardee Park Canal Project



Just around the bend from the park, the vegetation gathered and flourished, blocking vital flow from the Hardee Dam

Hardee Park Canal Project



The contractor returned and City staff assisted them in removing more vegetation over 3 days.



Hardee Park Data

- **\$27,000**
- **339 Man hours**
- **1,800 linear feet of canal affected**
- **685,000 pounds of wet vegetation removed**
- **170 cubic yards of vegetative debris removed**



Collier Creek Canal



BEFORE:
Overgrown
with brush
and
invasive
vines,
ineffective
for storing
and moving
stormwater

Mechanical vegetation removal and bank re-grade project for the beginning of Collier Waterway, off South Easy Street.

Collier Creek Canal



Using rental equipment, staff excavated the canal bottom and re-shaped and re-graded the banks.



Collier Creek Canal



Hundreds of truckloads of dirt have been brought in to fortify the banks and stabilize an access road for equipment.



This 3-month project is expected to be completed within the next few weeks.

Collier Creek Data

- 8,735 linear feet excavated
- 3,400 cubic yards of invasive aquatic vegetation and muck removed
- 144 cubic yards of invasive brush and vegetation removed from shorelines



Tulip Drainage



Mechanical
vegetation
removal and
ditch excavation
project.

Tulip Drainage



The final result!

Melrose Drainage



Mechanical
vegetation
removal and
ditch excavation
project.



Potomac Drainage



Bank erosion restoration project

South Ditches Data

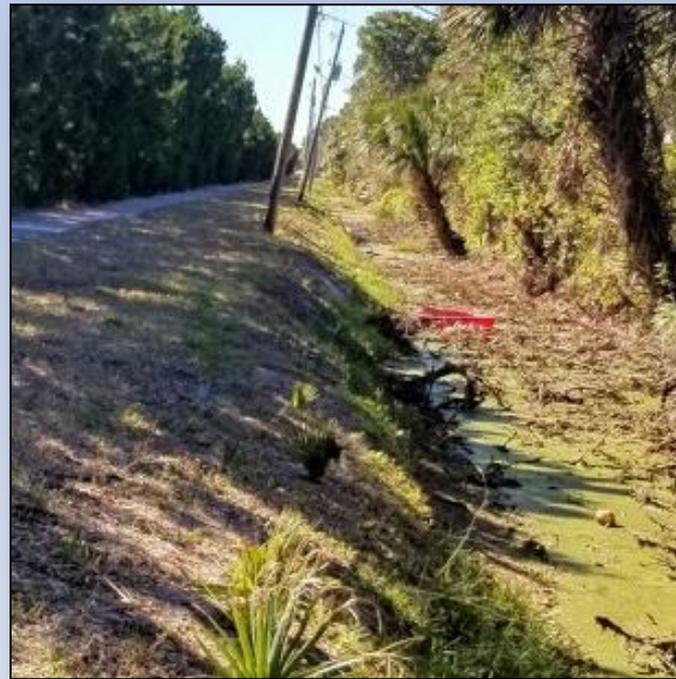
- 17,057 linear feet excavated
- 10,799 cubic yards of aquatic vegetation and muck removed



512 Drainage



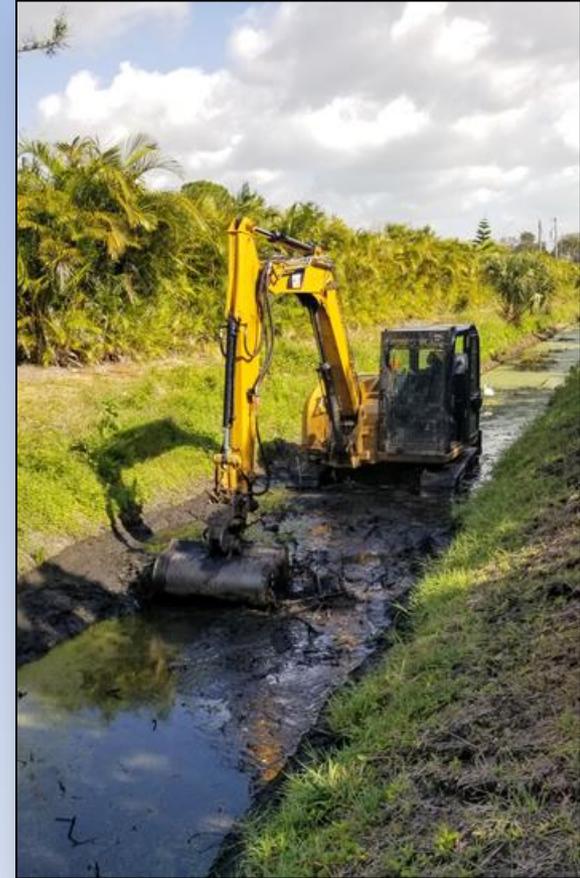
Very little water was flowing through this main ditch, organic material and sediment deposits had made this ditch more of a swamp ideal for breeding mosquitos and algae



512 Drainage



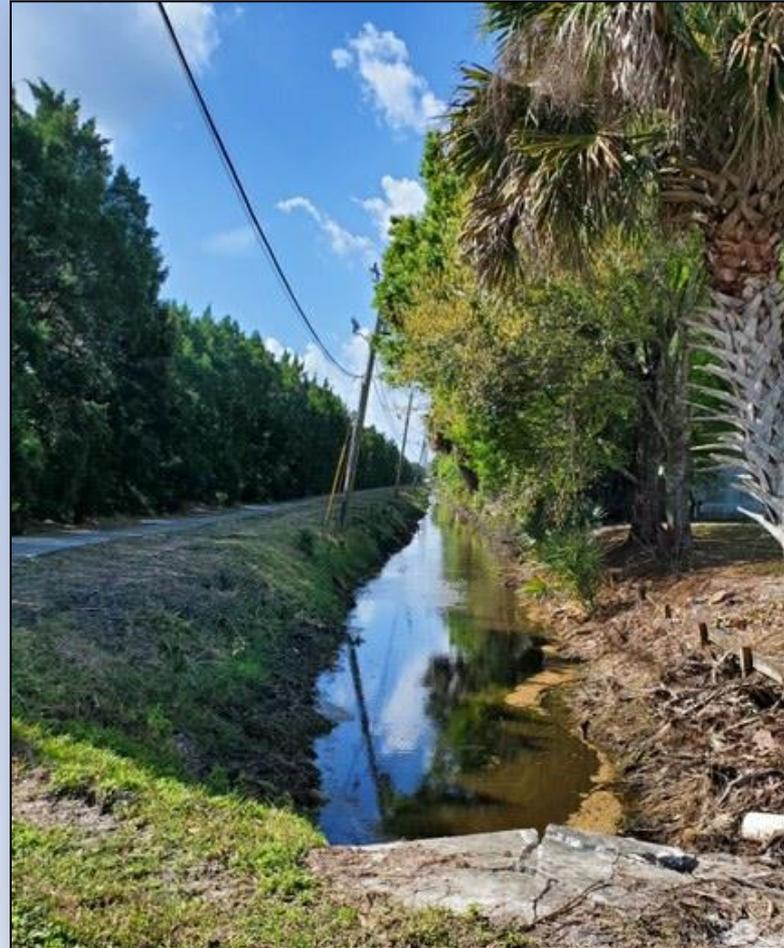
While in its driest phase of the year, SW staff excavated the mucky bottom to restore flow



512 Drainage



The final result is an open, flowing channel, free of debris!



512 Ditch Data

- 5,000 linear feet excavated
- 100 cubic yards of aquatic vegetation and muck removed
- \$16,000 equipment repair



Final Data

- 32,592 linear feet (6.17 miles) of stormwater conveyance system mechanically managed
- 14,613 cubic yards of debris removed
- 10,059 man hours from City staff
- \$27,500 paid to contractor
- \$30,767 spent on rental equipment
- \$1305 paid to IRC landfill for disposal of 29 truckloads of debris (not incl. Hardee Park)