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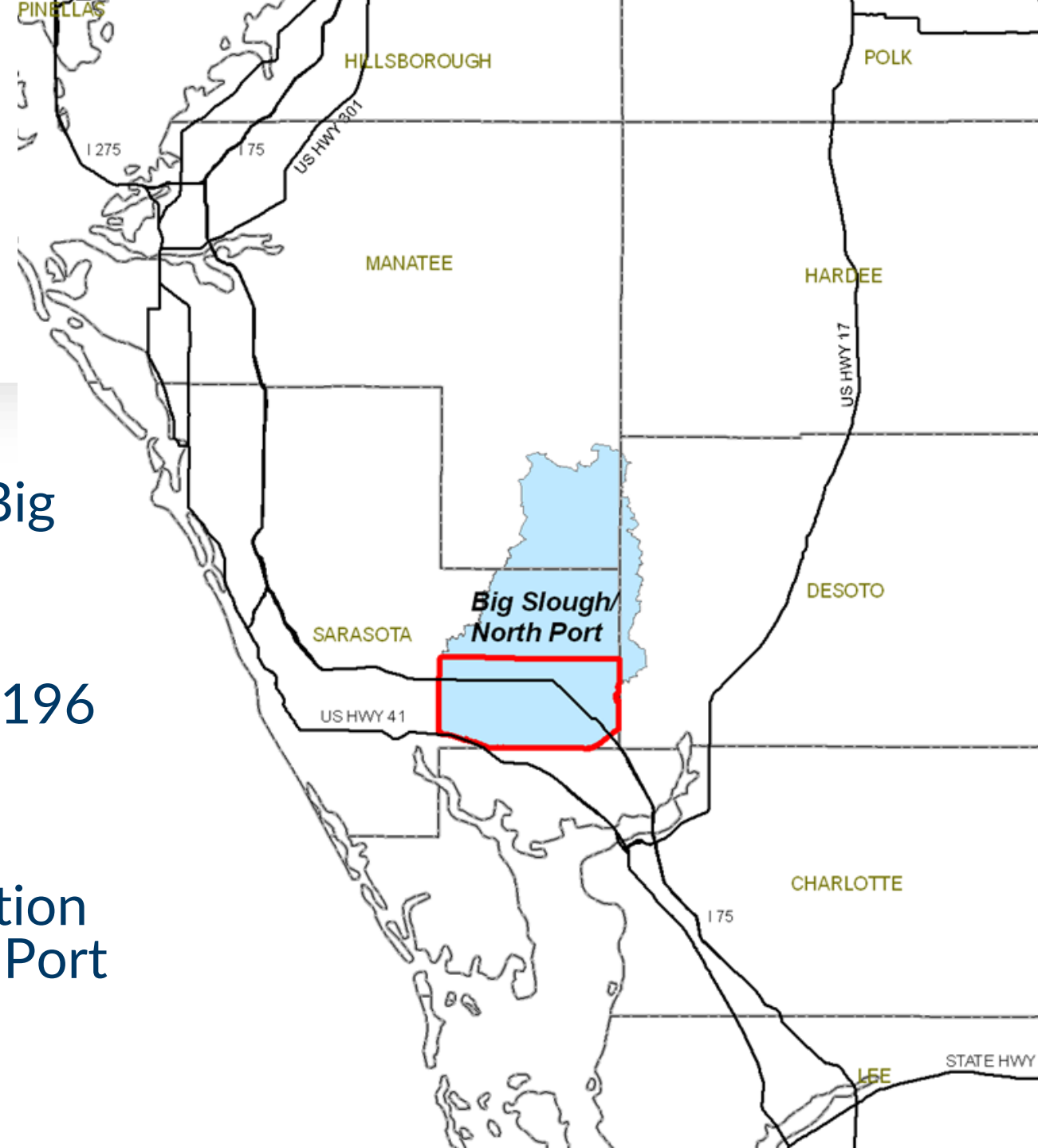


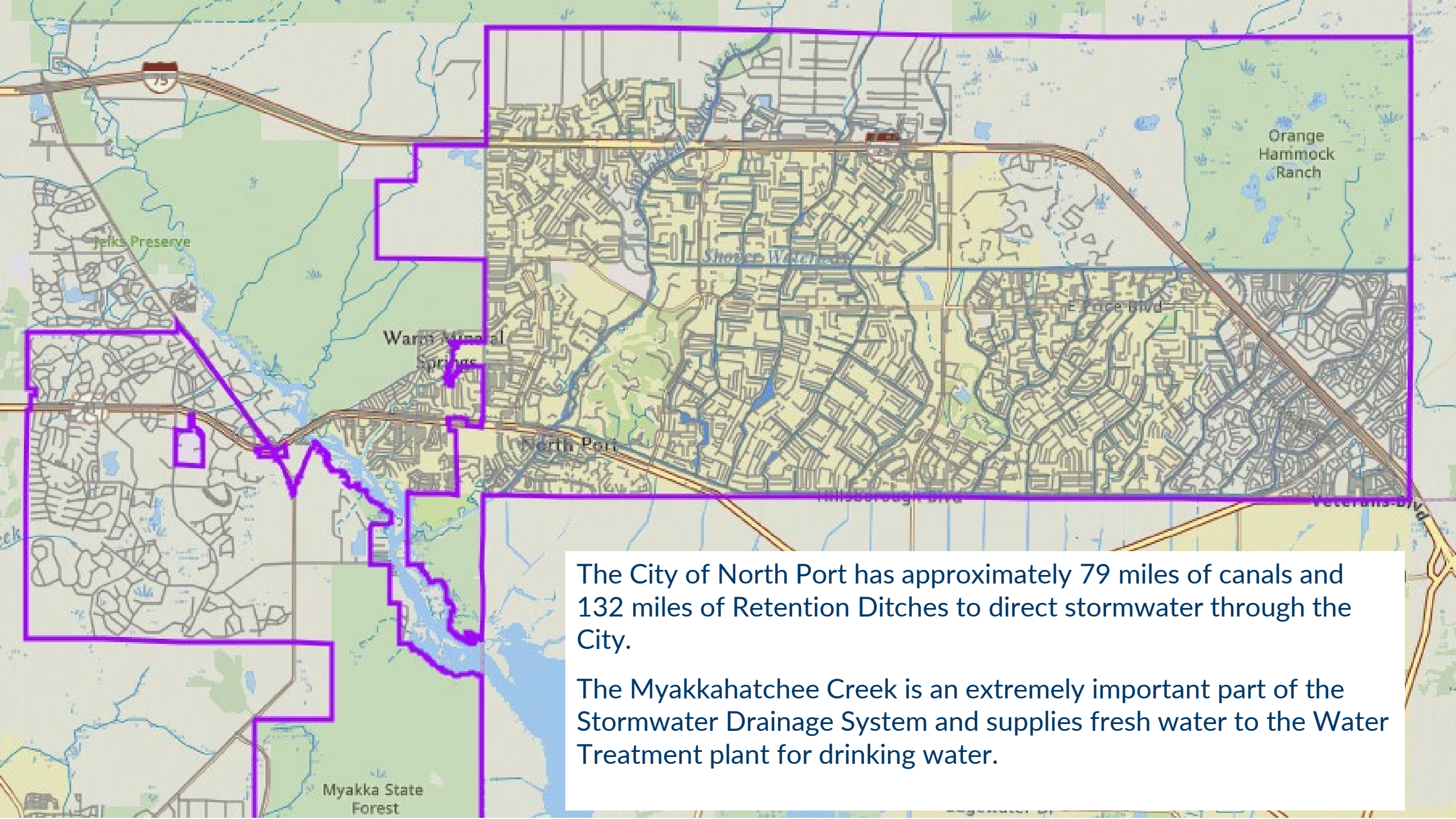
Myakkahatchee Creek Maintenance Project

Presentation to the Environmental Advisory Board
November 4, 2024

Hydrology

- North Port is located within the Big Slough Watershed.
- Big Slough Watershed is roughly 196 square miles.
- Water moves from the north portion of the watershed, through North Port to Charlotte Harbor.



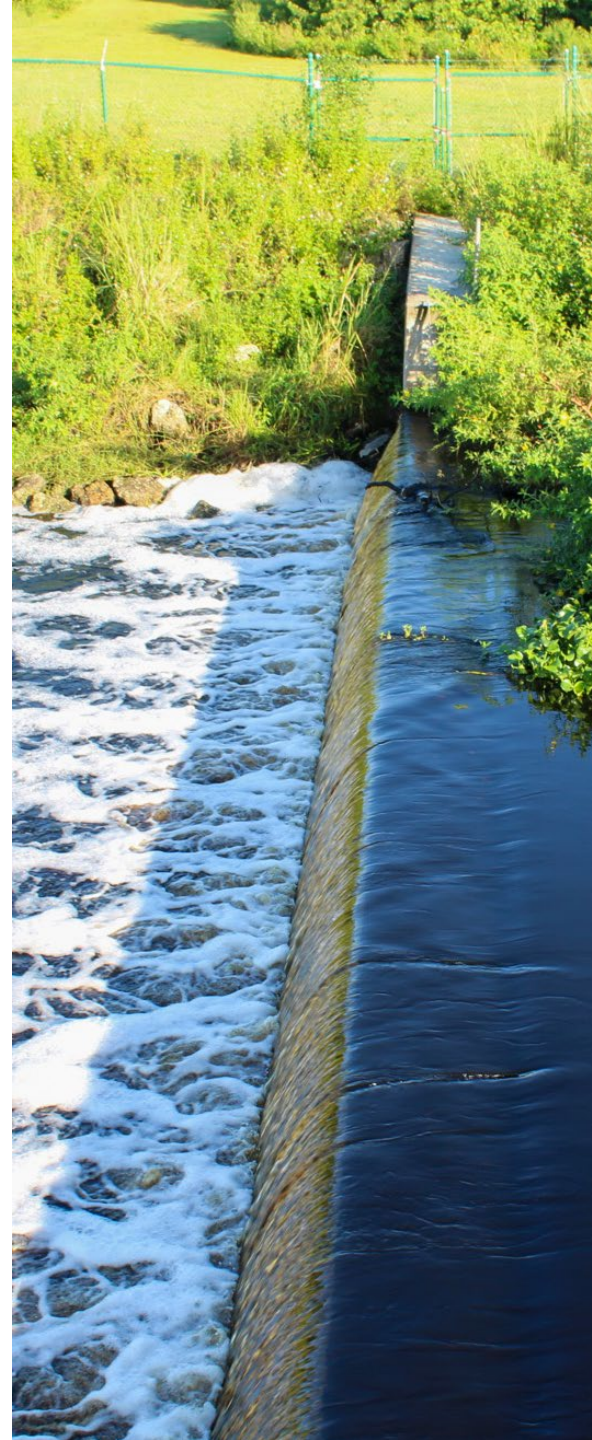


The City of North Port has approximately 79 miles of canals and 132 miles of Retention Ditches to direct stormwater through the City.

The Myakkahatchee Creek is an extremely important part of the Stormwater Drainage System and supplies fresh water to the Water Treatment plant for drinking water.

Stormwater drainage system objectives

- Direct water away from buildings and infrastructure.
- Supply drinking water.
- Use vegetation to slow, filter, and cleanse stormwater runoff from impervious surfaces.
- Water held in swales for up to 72 hours allows vegetation to clean the stormwater to protect the natural environment and reduce erosion.
- Water may pond in areas while working through the system. This is normal and expected and is not actually flooding.



Hurricane Ian Impacts

- Hurricane Ian, a 500-year storm, dropped over 15" of rain on the City and had sustained 155 mph winds
- Additionally, water that fell on northern sections of the Big Slough Watershed moved through the City.
- The storm deposited debris and vegetation in the Myakkahatchee Creek.
- Maintenance of water flow in the Myakkahatchee Creek is essential to the City.





Post Ian Response

- United States Department of Agriculture (USDA) National Resources Conservation Service (NRCS) provides public assistance funds for disaster response related debris removal and disposal operations.
- Representatives from NRCS visited the City to evaluate concerns with the creek blockages and potential grant opportunities.
- The first step required thorough documentation of the situation.

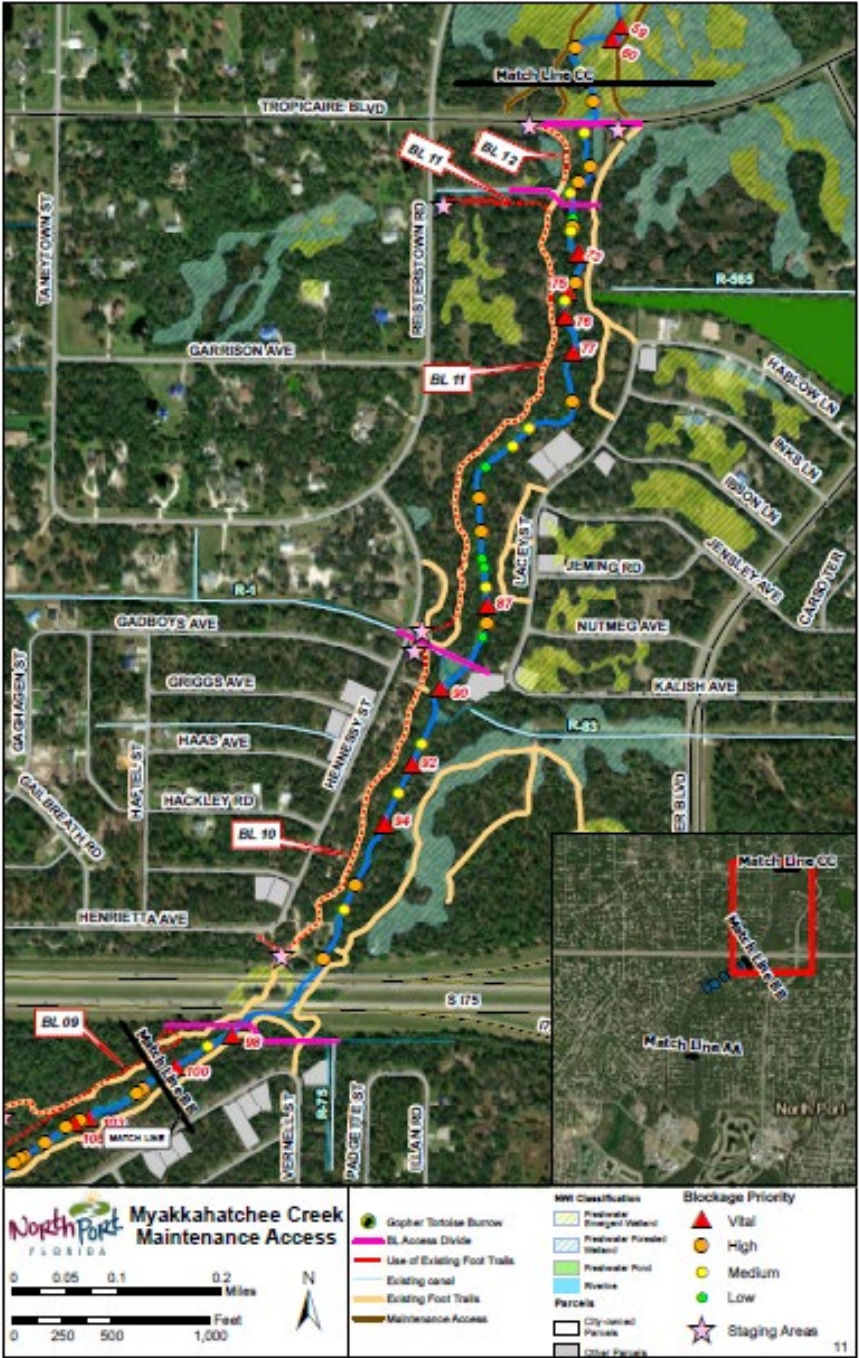


Blockage Mapping

The City contracted an engineering firm to document the location and size of the blockages.



Blockage Mapping, cont.



Over 190 blockages were identified and categorized.

Examples of Blockage Categorization



Vital (Blockage #16)



High (Blockage #4)



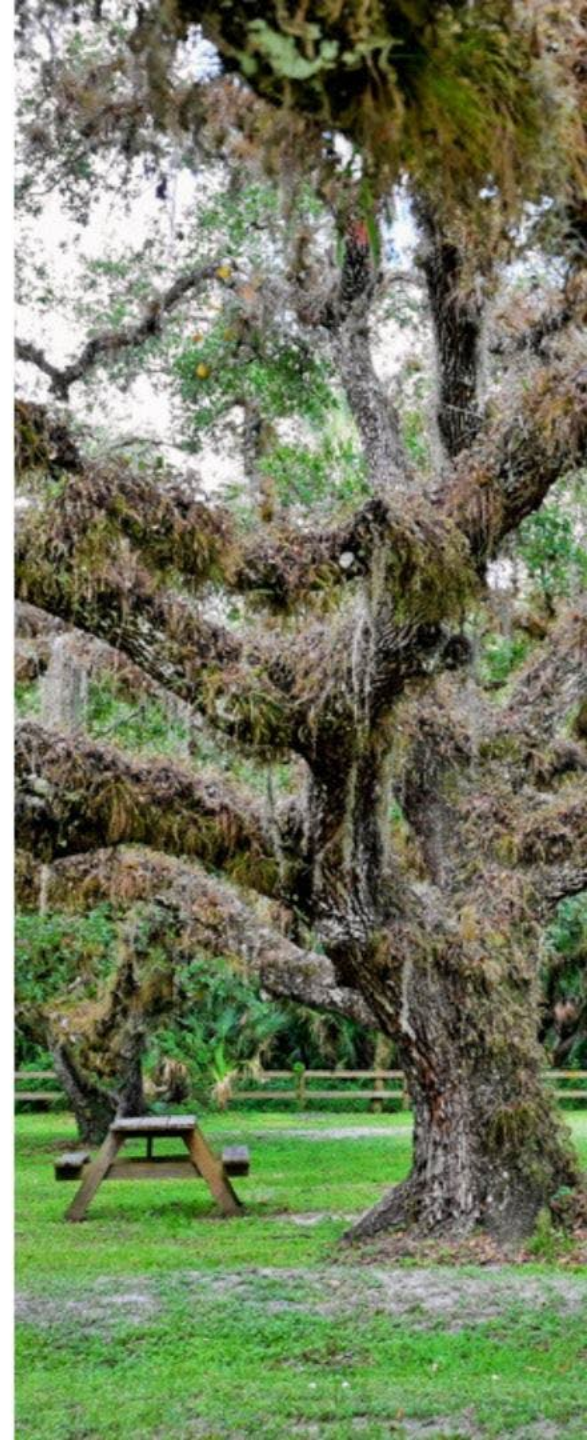
Medium (Blockage #79)



Low (Blockage #18)

Maintenance Project Plan

- The project is located in waters of the United States associated with Myakkahatchee Creek (AKA Big Slough), between Estates Drive & Tropicaire Boulevard (North) and Price Boulevard (South). The project includes:
 - 10' wide maintenance access route, plus 2' additional stabilization.
 - Minimal clearing to access the blockages from the main 10' wide maintenance access route.
 - Removal of debris utilizing all-terrain vehicles, long-arm excavators, and a Menzi Muck excavator, along with hand tools, hydraulic equipment, hand power tools, and manual labor.
- Vegetative debris may be mulched and placed in an appropriate upland area or hauled away and disposed of in landfill.



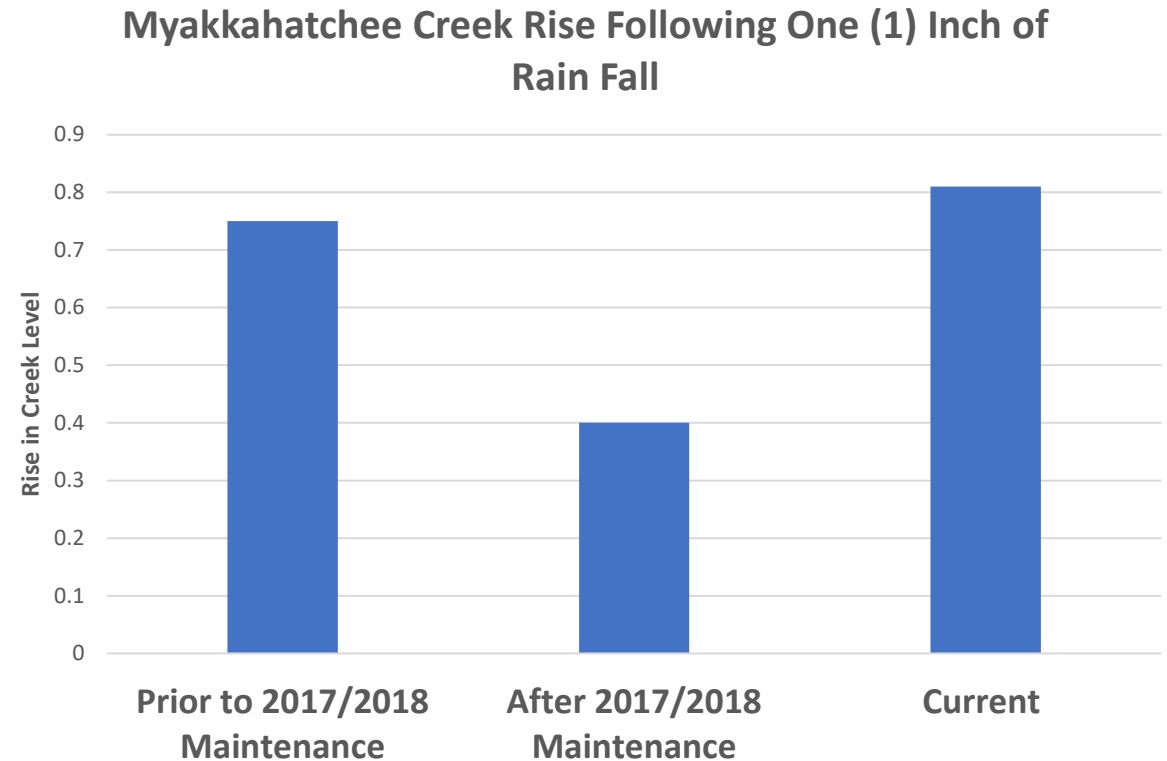
Project Map

- Access routes are planned to follow existing paths created by the public, as closely as possible.
- Additional temporary clearing of offshoots from the path to locations along the Creek bank are necessary to remove the blockages by mechanical means.
- North of Tropicaire Blvd to North City Boundary, there are already acceptable access routes and City staff will be removal those blockages.



Water Flow Improvement from Prior Blockage Removal

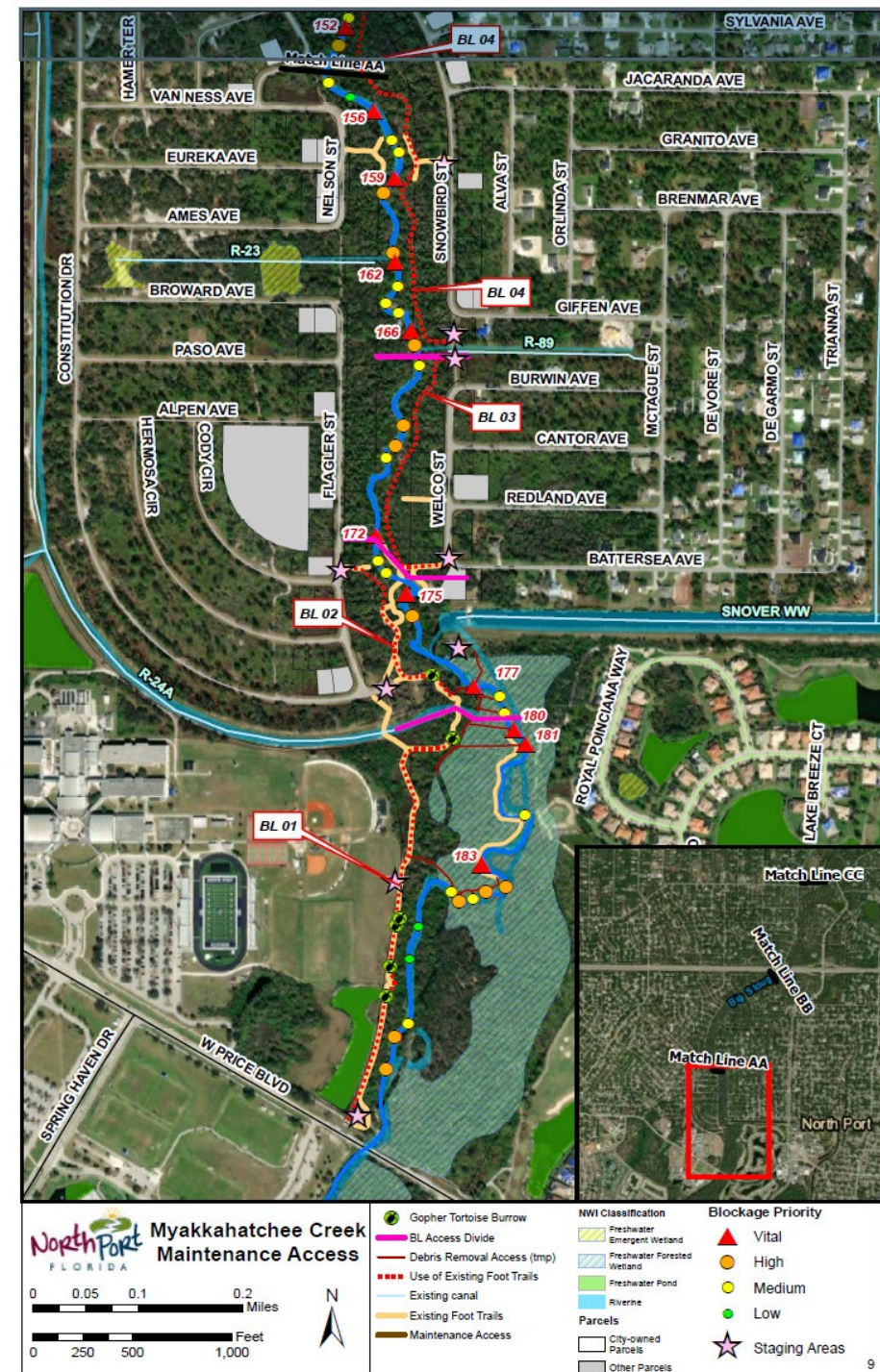
- In 2017/2018 the Department of Public Works completed maintenance with the removal of multiple blockages from the Myakkahatchee Creek.
- Prior to this maintenance work 1 inch of rainfall caused a .75 foot rise of water level in the Creek.
- Following the maintenance work 1 inch of rainfall caused a .40 foot rise of water in the Creek.
- This maintenance work resulted in a 47% improvement.
- **Currently, 1 inch of rainfall results in .81 foot rise of water in the Creek.**



Project Area Environmental Considerations

Wetlands

- Some offshoot crossing of wetlands will be needed to access the blockages between Snover Waterway and Price Boulevard.
- SWFWMD Environmental Staff has made several visits to evaluate the impact.
- SWFWMD approved Environmental Resource Permit (ERP) indicates “Re-vegetation of the temporarily impacted wetland areas to occur via natural recruitment” and no wetland impact mitigation is required.





Project Area Environmental Considerations, cont.

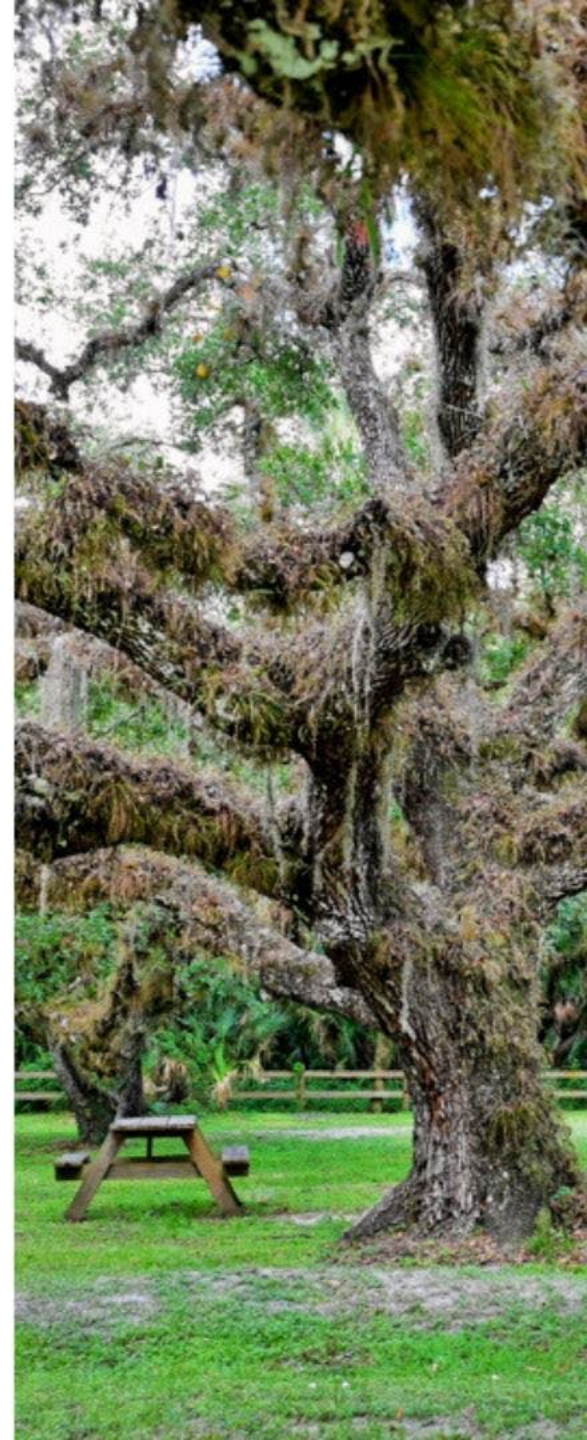
Protected Species

- Gopher Tortoise
 - A survey to identify Gopher Tortoises and their burrows will be conducted prior to construction in accordance with the most recent Florida Fish and Wildlife Conservation Commission (FWC) *Gopher Tortoise Permitting Guidelines*.
 - The Gopher tortoise burrows identified during the survey located within 25-ft of the project footprint will require modification of the project plan and/or coordination with the FWC and relocation efforts to a FWC approved recipient site.
- Eastern Indigo Snake
 - Project requires adherence to the USFWS Standard Protection Measures for the Eastern Indigo Snake

Project Area Environmental Considerations, cont.

Culturally Significant Trees

- The proposed maintenance access was designed to avoid culturally significant specimen trees.
- If specimen trees are encountered within the proposed alignment during construction, further evaluation to avert the tree will be considered.



An aerial photograph of a modern residential development. In the foreground, a large, dark blue lake reflects the sky. To the right of the lake, a large swimming pool with a curved edge is surrounded by palm trees and lounge chairs. Beyond the pool, there are several houses with red-tiled roofs and manicled lawns. In the background, more houses and a winding road are visible under a clear sky.

Cultural Resources Assessment Study

- Florida Division of Historical Resources findings:
 - The proposed project will have no adverse effect on historic properties listed, or eligible for listing, in the NRHP, or otherwise of historical, archaeological, or architectural value within the surveyed area of potential effect (APE).
 - The submitted report is complete and sufficient in accordance with Chapter 1A-46, Florida Administrative Code.
- Florida State Archeologist Review required by NRCS
 - Recommendation to proceed without monitoring being required.

Requirements from Regulatory Agencies

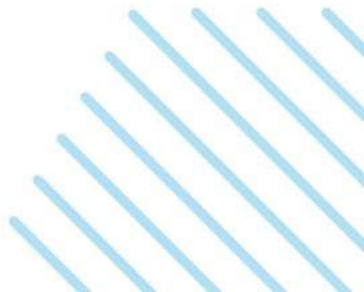
- Project review and permitting required by US Army Corps of Engineers (USACE)
 - Permit (NWP) 37 (Emergency Watershed Protection and Rehabilitation) SAJ-2024-00359 Nationwide
 - Permit Expires March 14, 2026.
- Southwest Florida Water Management District (SWFWMD)
- City of North Port - Environmental Surveys including wildlife, wetland and resources studies





Project Management

- Daily onsite inspection by Department of Works Staff
- Bi-weekly reports to NRCS
- Permit requirements from USACE and SWFWMD





Questions?