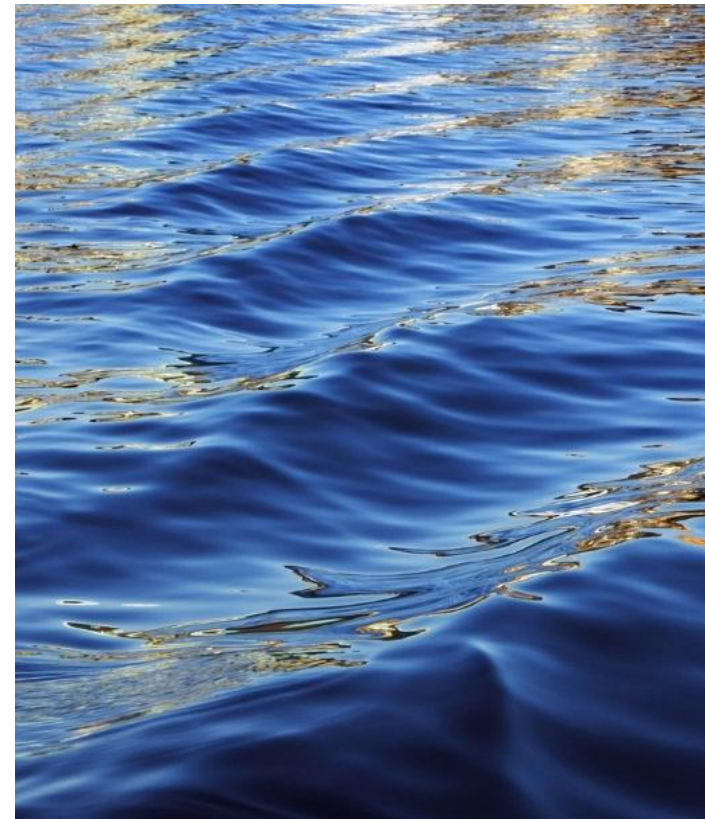




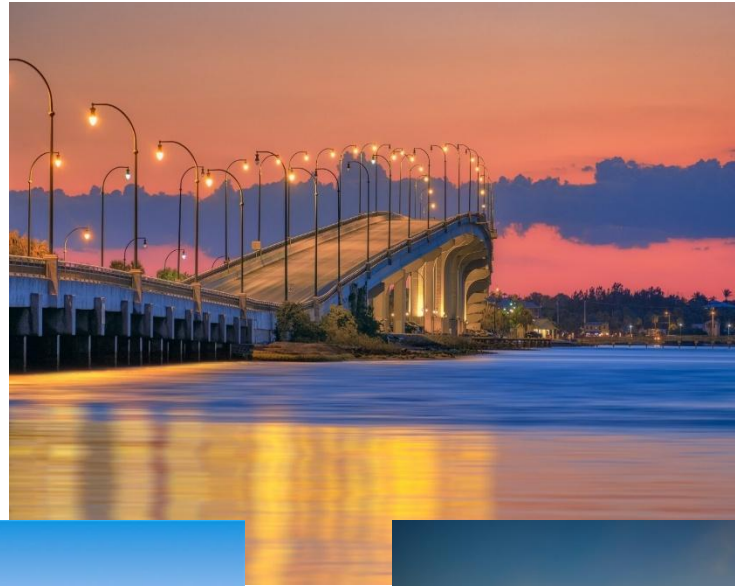
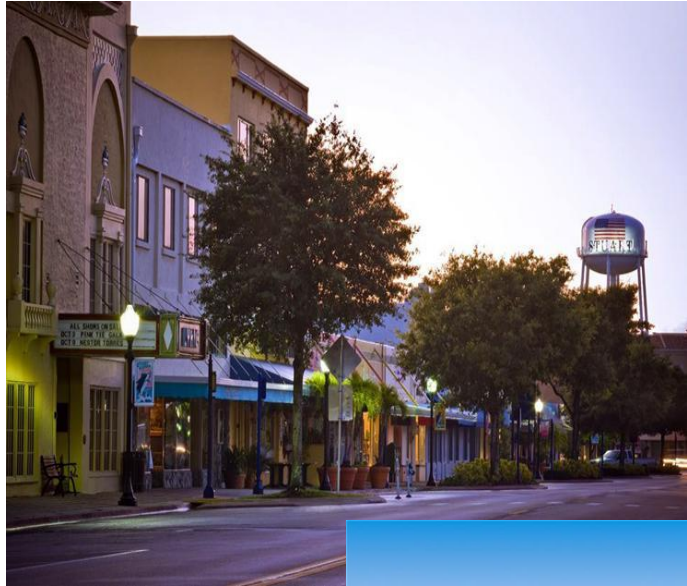
ripple  
*...as a drop of water becomes a river*

# Ripple Stormwater Eco-Art Project

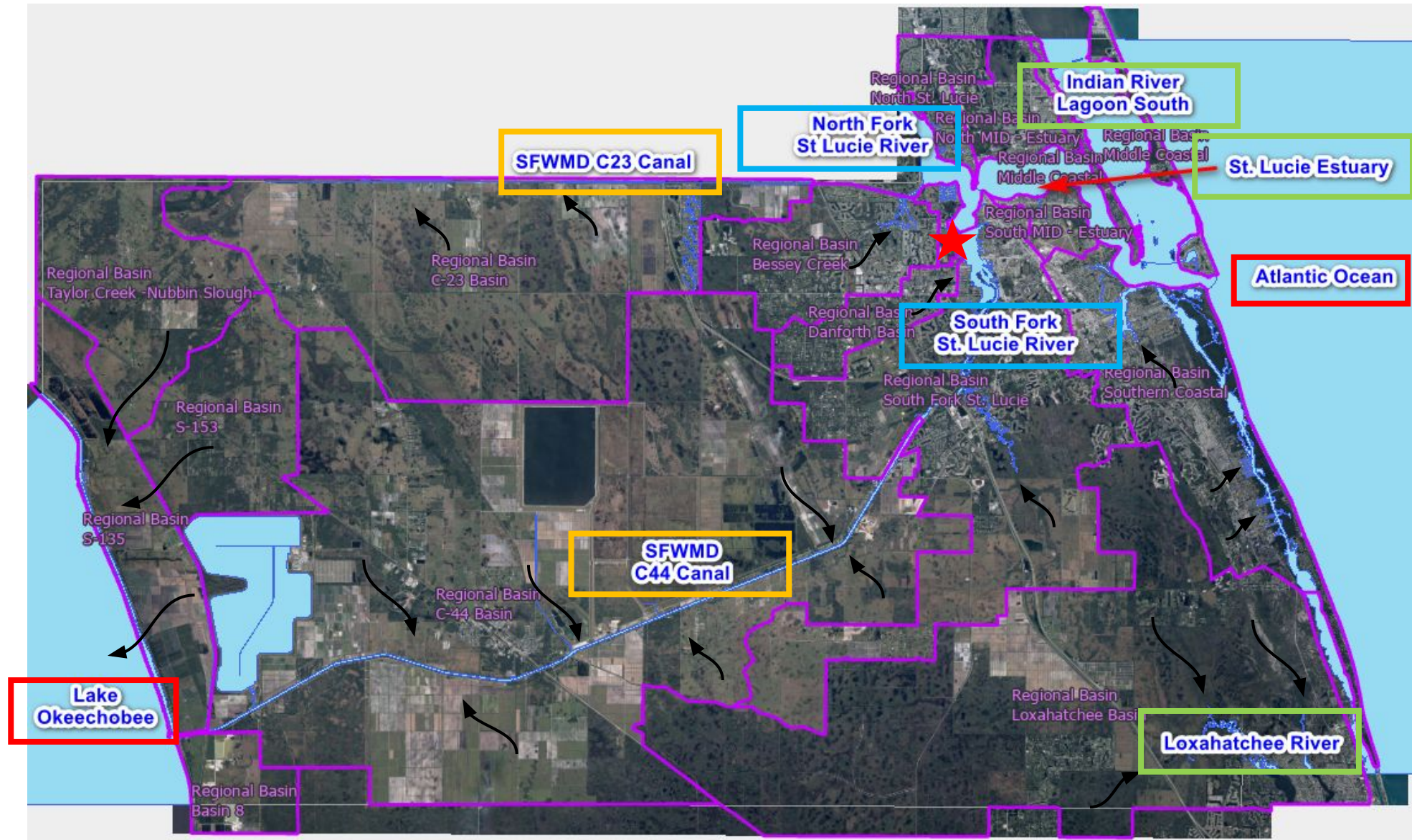
Palm City, Florida



# Martin County Depends on Our Environment



# Where does the water go?



# Impairments

## Legend

### Alternative Restoration Plans

-  Bacteria Pollution Control Plan
-  Pollutant Reduction Plan
-  Reasonable Assurance Plan

### Florida Total Maximum Daily Load (TMDL)

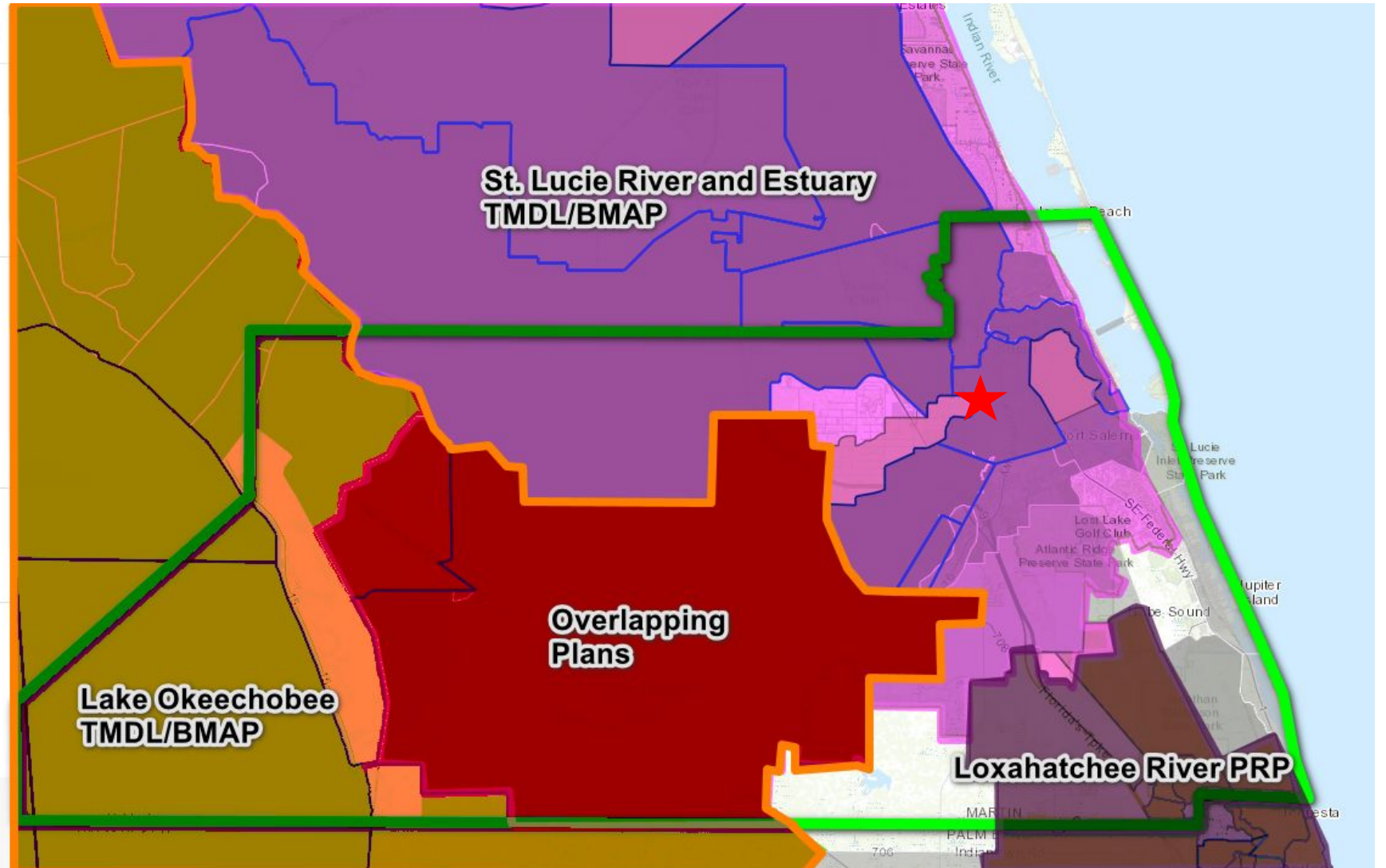
-  TMDLs Adopted
-  TMDLs Adopted
-  TMDL Activities In Progress
-  TMDL Activities In Progress

### Waters Not Attaining Standards (WNAS)

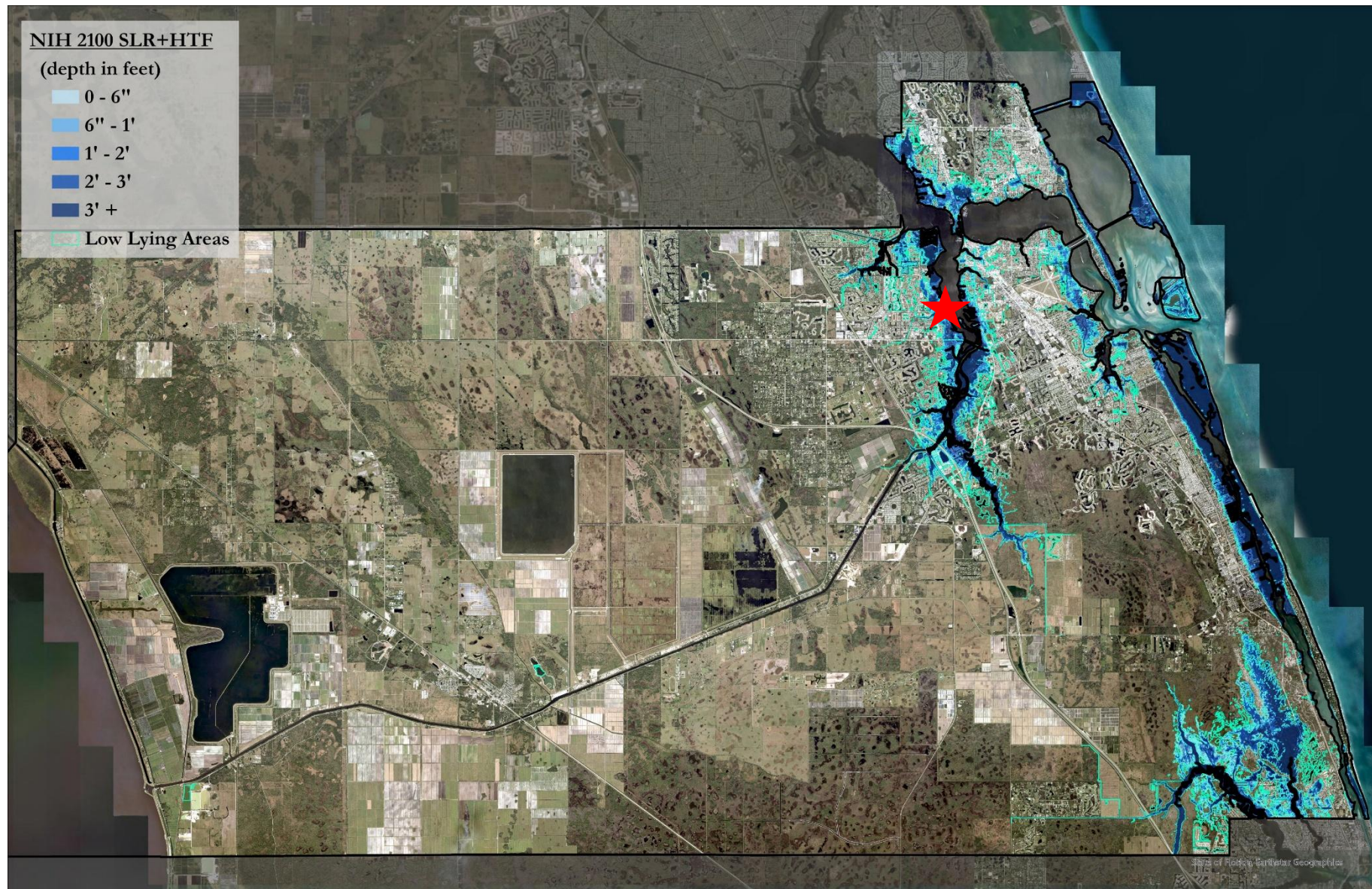


### Statewide Basin Management Action Plan (BMAP) General Areas - Statewide BMAP General Areas

-  Adopted BMAPs
-  Under Development



# Tidal Exposure



# Background



- First Platted and Developed in 1910's prior to rules
- Drainage system consists of driveway and roadway culverts and swales
- Conveys uncontrolled and untreated discharge directly into the South Fork of the St. Lucie River.
- 20-acre basin
- Residential and Commercial on Septic Tanks

# Goals

- Stormwater capture and water quality improvement
- Improved environmental education and stewardship
- Creative placemaking that encourages public interactions
- Make visible the community's connection to, and impact on, the St. Lucie River

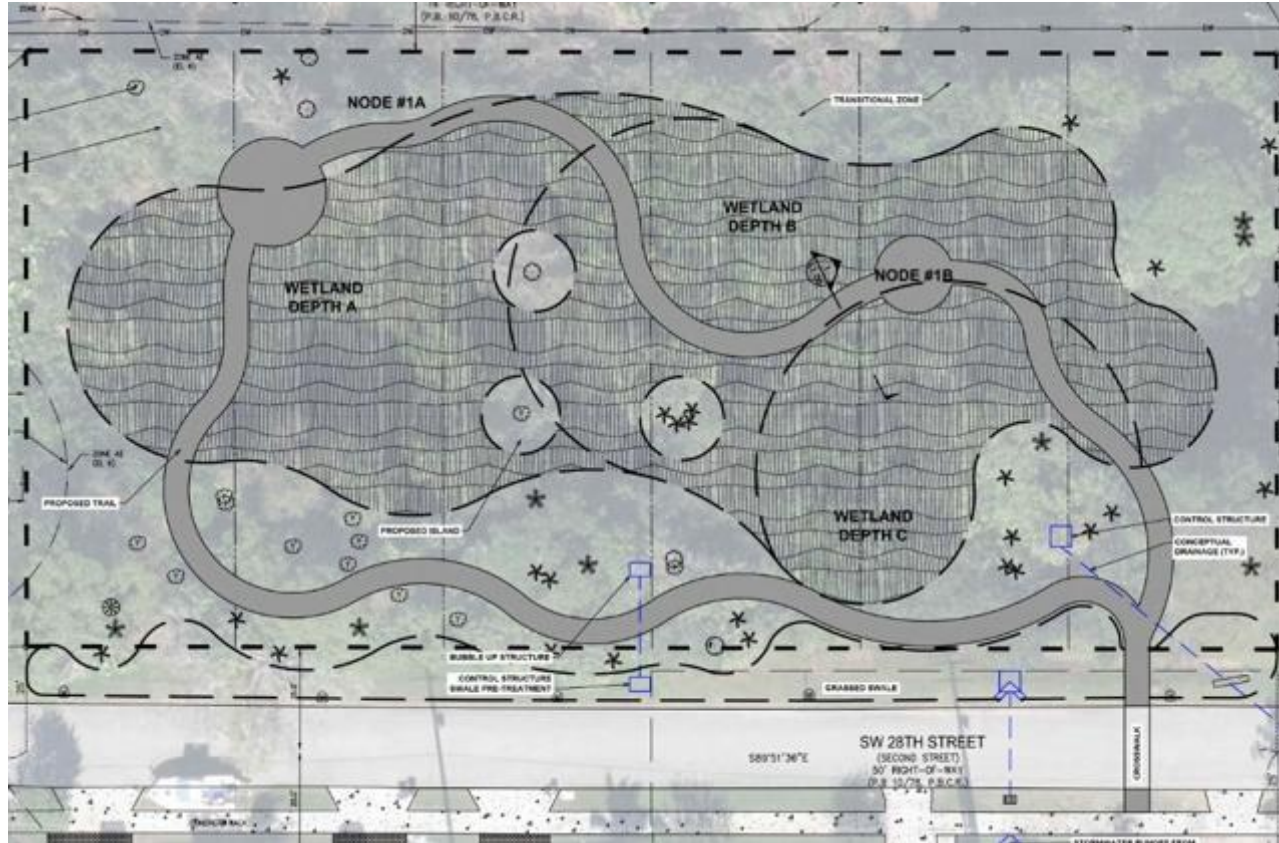


# Project Components – 4 sites

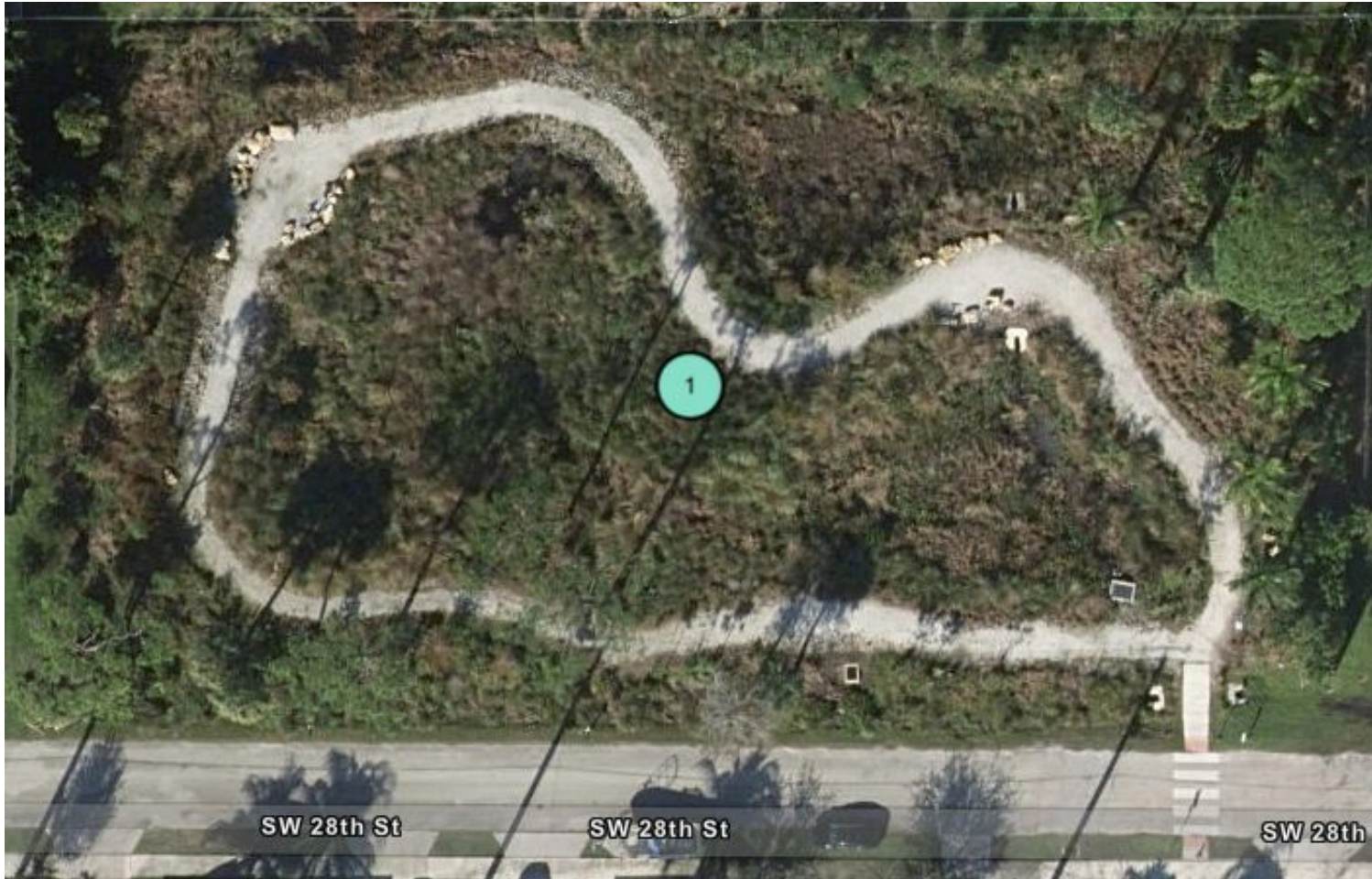


- Stormwater Treatment
- Water Quality
  - 34% TP Reduction (62 lbs/year)
  - 72% TN Reduction (21 lbs/year)
- EcoArt
- Creative Placemaking
- Education
- Community Engagement

# Site 1: Exotic/Invasive Removal & Restored Wetland

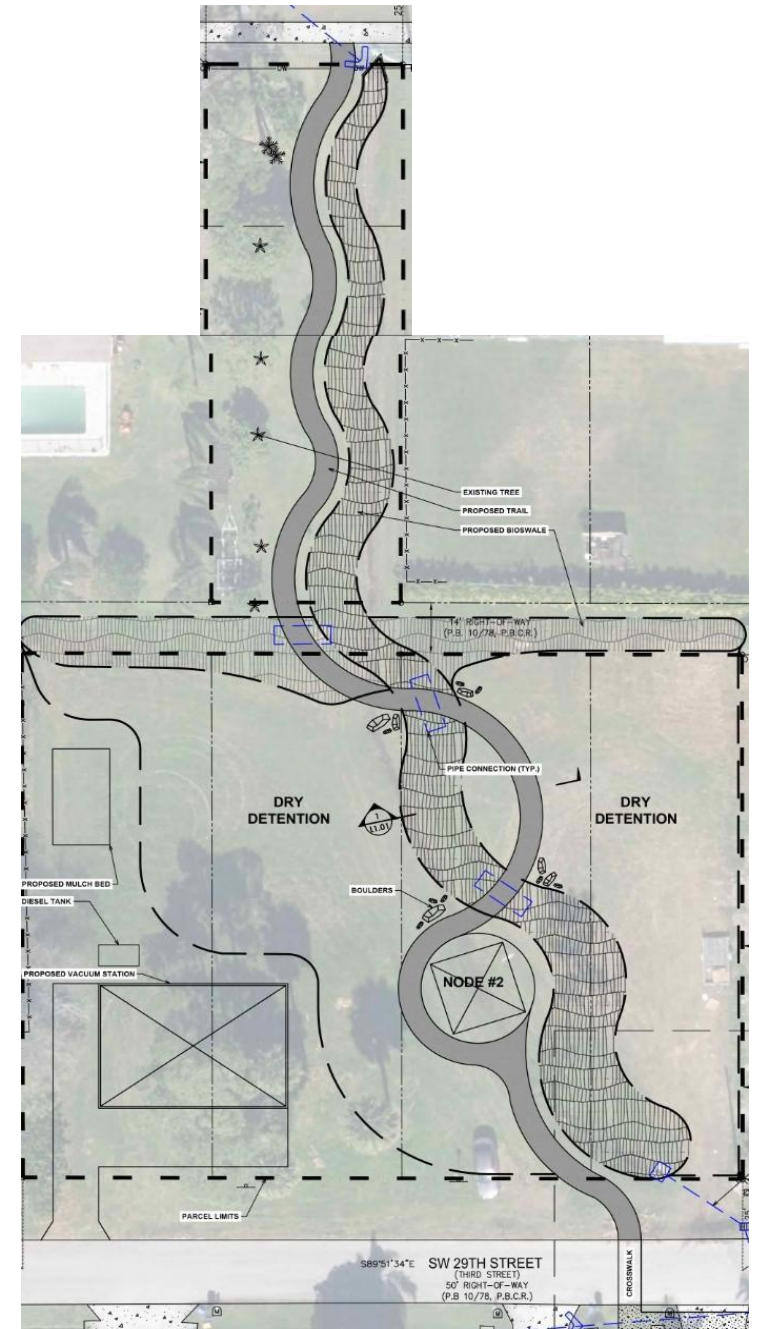


# Site 1: Exotic/Invasive Removal & Restored Wetland



- Keep viable native vegetation – create “islands”
- Work with existing elevations
- Maintain privacy - replant with native trees that will grow taller along north, east and west edges
- Walking & maintenance trail created with cap rock and shell rock
- Nodes #1A & #1B for resting, contemplation and education opportunities

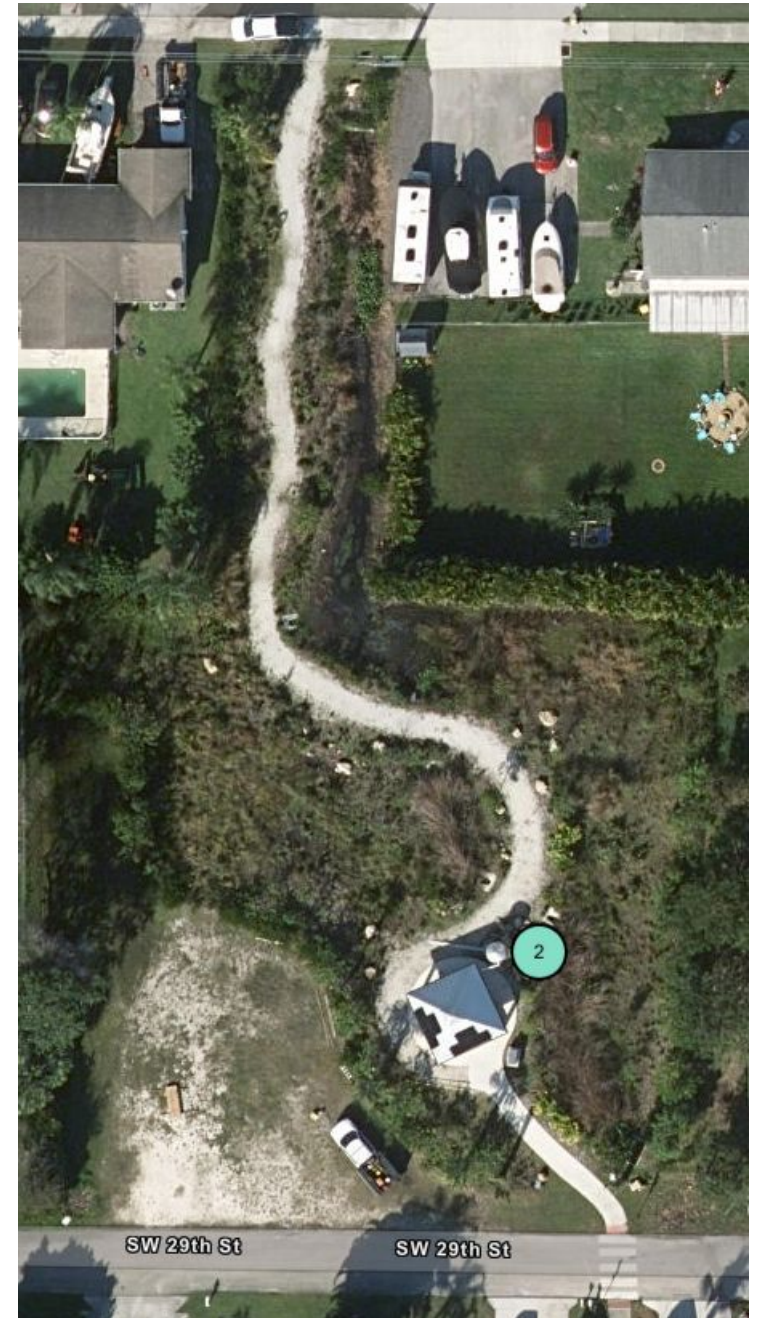
# Site 2: Swales, Bio-swales, Dry Detention & Sewer Vacuum Station



# Site 2: Swales, Bio-swales, Dry Detention & Sewer Vacuum Station



- Expansion of existing swales, addition of bio-swales and dry detention to increase water storage and quality.
- Walking trail created with cap rock and shell rock.
- Grassed dry detention area passive play area
- Planting plan for “Ripple” and Vacuum Station to create separation
- Node #2 area for shelter



# Site 3: Exotic/Invasive Removal & Wet Detention

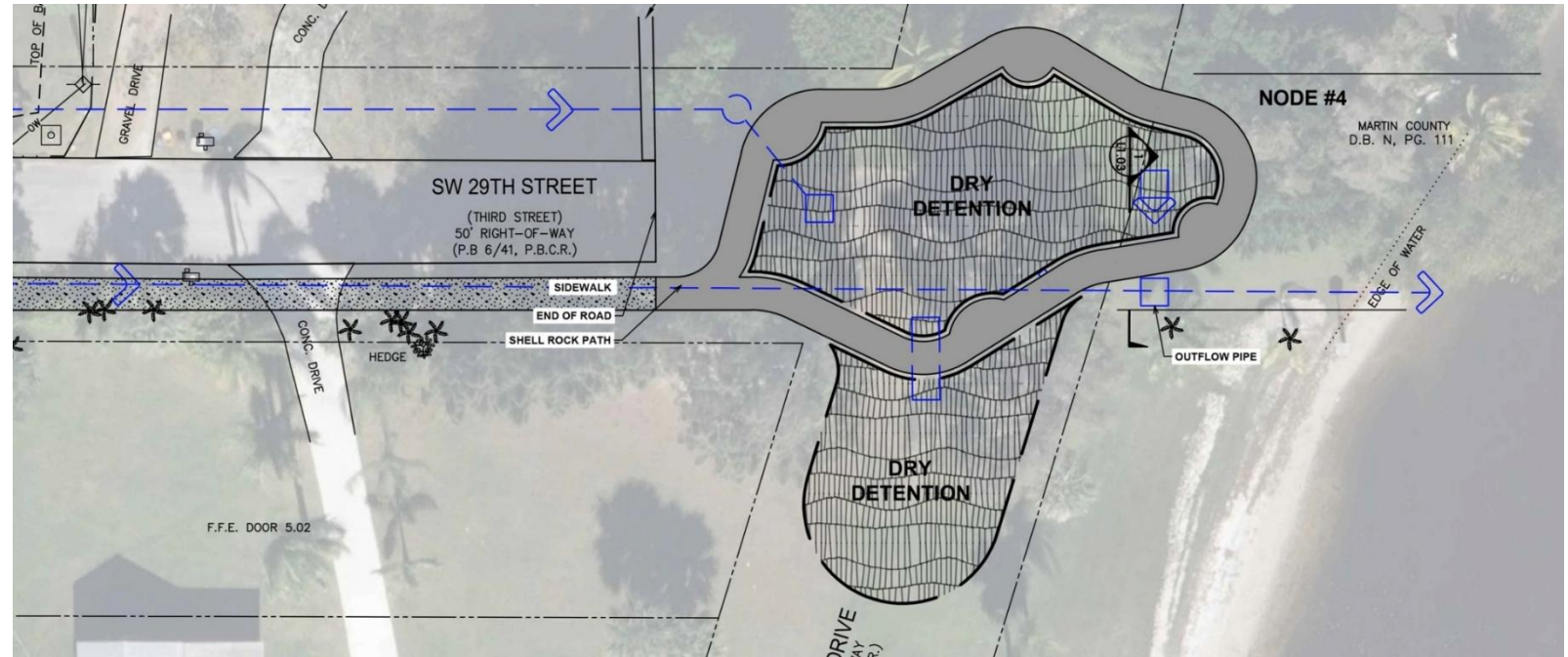


# Site 3: Exotic/Invasive Removal & Wet Detention

- Shelter – same style as Parcel 2 but smaller scale
- Four Art Panels inside shelter - Solar for lighting
- Dock to experience water
- Ripple weathervane
- Provides fun visual connection from Parcel 2 and Parcel 3
- Post and rail fence north, south & East
- SS cable fencing for dock



# Site 4: Exotic/Invasive Removal & Dry Detention



# Site 4: Exotic/Invasive Removal & Dry Detention

- Partial removal of asphalt
- Shell rock path begins where sidewalk ends
- Dry detention offers more storage and cleansing of water
- Plantings low and beach, “Zen” feel – grasses that move in breeze and ground cover that secures soil
- Coquina and ipe wood seating
- Interpretive messaging board
- Possibly a Bat Box in this location



# Funding

Ripple was one of 7 EcoArt projects in the nation that was awarded an NEA Our Town grant, and the only one in the country to receive a second.

1. The National Endowment for the Arts (NEA) funded the conceptual drawings, community engagement and education: \$100,000 Our Town grant. (\$50,000 match)
2. The NEA also funded the engineering and construction drawings: \$100,000 Our Town grant. (\$50,000 match)
3. The Department of Environmental Protection (DEP) provided a 319H grant: \$429,000. (\$286,000 match)
4. DEP also provided a 319 grant: \$315,000. (\$97,000 match)
5. The project used County Florida Power and Light Franchise Fees: \$100,000.
6. The Martin County Ecosystems Management and Restoration Division partnered with the CRA on this project and provided: \$900,000.
7. TIF dollars rounded out the project funding: \$321,000. (not including grant match funds)

## In-Kind Assistance

- CRA
- NAC
- Martin County Native Plant Society
- UF-IFAS Extension Master Gardeners
- Water Ambassador Program
- Residents
- Local Businesses
- Library
- Non-profits

Total Grant = \$461,000

Total County = \$1,000,000

Total TIF = \$804,000

**Total Cost = \$2.265 million**

# Community Involvement – Conceptual Design



- August 2017 – Establish and convene Project Steering Committee. (Artist, Martin County Staff, Old Palm City Community Liaisons, Engineer and Landscape Architect)
- September-November 2017 – Site Assessment and Pre-project survey of community members
- December 2017-January 2018 – Plan community events



**Community Engagement – February 17, 2018**

- Potluck Dinner
- Exchange Information, Stories and Gain Trust



**Community Engagement – March 3, 2018**

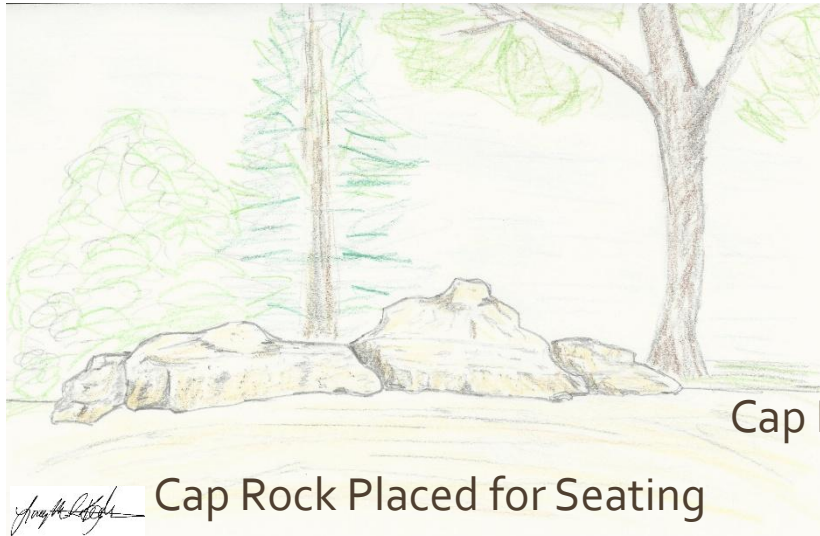
- Creative Placemaking Workshop



# Community's Design Input

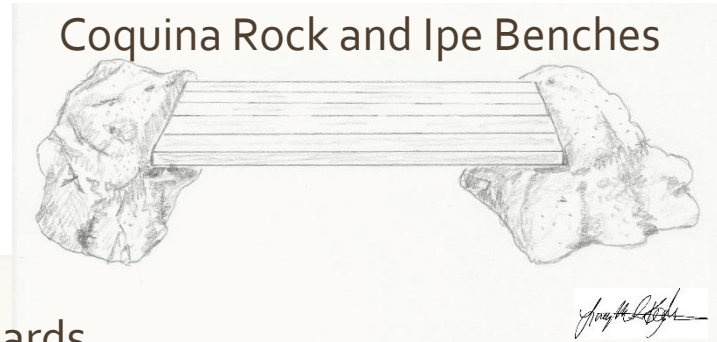
New Life	Unite River & People	Strengthen Community	Create Special Place
Natural Materials	Safe Walking Trails	Encourage Good Health	Experience Beauty of New STA and Landscape
Benefit Wildlife	Educational Components	Reflect Character of the Community	Art Elements
Functional	Native Plants	Quiet & Reflective Places	Shade and Seating
Solar and Kinetic to Generate Power	Water Fountains/ Features	Birds and Sea Life	Bat Boxes

# Art Elements

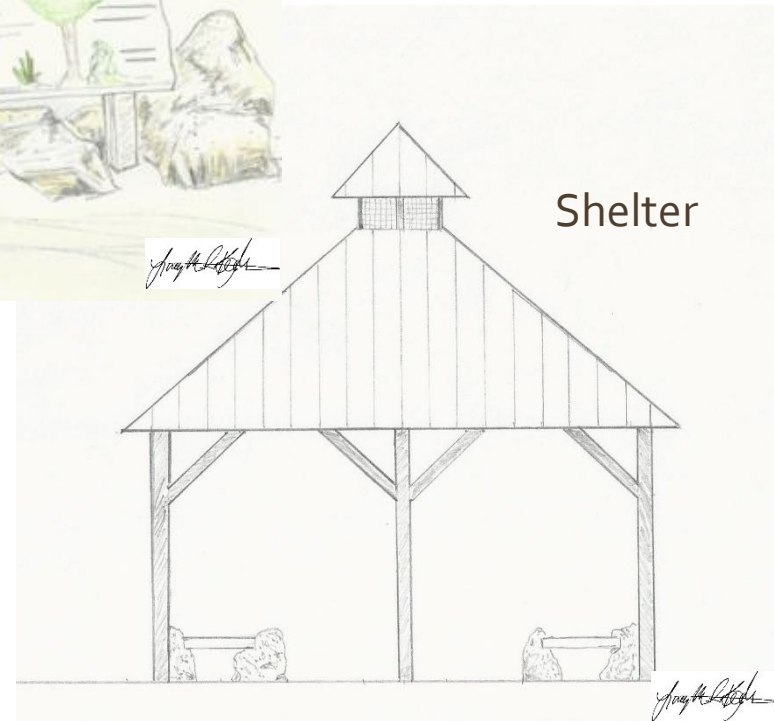


Cap Rock Placed for Seating

Cap Rock & Interpretive Message Boards



Rainwater Cistern



# Historic + Environmental Panels



# Community Engagement- September 22, 2018

## Conceptual Design

After the creative placemaking workshop on March 3, the design team began working on the conceptual design.

On September 22, a community engagement / potluck dinner was held to present Ripple conceptual designs to the residents. The community embraced the design. The concepts along with a few suggestions were used to create the construction documents.



View of South Fork of St. Lucie River from Leighton Park, Old Palm City  
Photo by Lucy M. F. Keshavarz

# Community Engagement and Educational Activities



This photo shows one of the educational workshops/tours conducted by Lucy Keshavarz, the artist on the project, with the Bessie Creek Elementary Environmental Summer Camp students. A total of six tours were conducted throughout project construction for the general community (2), the IFAS Virtual Water Ambassador program (1), the Native Plant Society (1) and the Bessie Creek students. (2 classes).

Community engagement and education also included creative place-making workshops, two Ripple exhibits in the community, a project story board and sensory tour on the website and four magazine articles. (3 local and 1 national)

# Community, County, State, and National Support

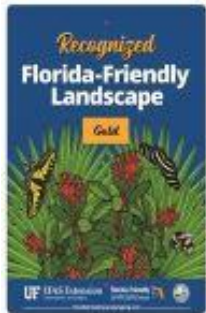


## Community Support:

- MartinArts
- Cultural Courthouse Gallery Exhibit
- Old Palm City Neighborhood Advisory Committee
- Community Redevelopment Agency
- Peter & Julie Cummings Library Exhibit – Palm City
- UF - IFAS
- Native Plant Society
- Lucy Keshavarz – Award winning Eco-Artist

# Awards + Recognitions

- Florida-Friendly Landscaping Gold Level recognition from UF/IFAS
  - Recognized in Palmetto Magazine: 2025 volume 41: number 1
- Florida Native Plant Society- Garden of Excellence
- Special Recognition Award from the Martin Arts
- Florida Redevelopment Association 2024 Out of the Box Recognition
- Keep Martin Beautiful 2024 Environmental Stewardship nominee
- Recognized in Stuart Magazine – December 2024



# An Enduring Community Amenity





**National  
Endowment  
for the Arts**  
arts.gov



**MARTIN COUNTY**  
*Community Redevelopment Agency*



# Questions?

Thank you!

