



FUNDING OPPORTUNITIES TO  
ADDRESS INTEGRATED WATER  
RESOURCE MANAGEMENT  
INITIATIVES

**BURGESS & NIPLE**  
Engineers ■ Planners

2023 FSA Annual Meeting

# TODAY'S FOCUS

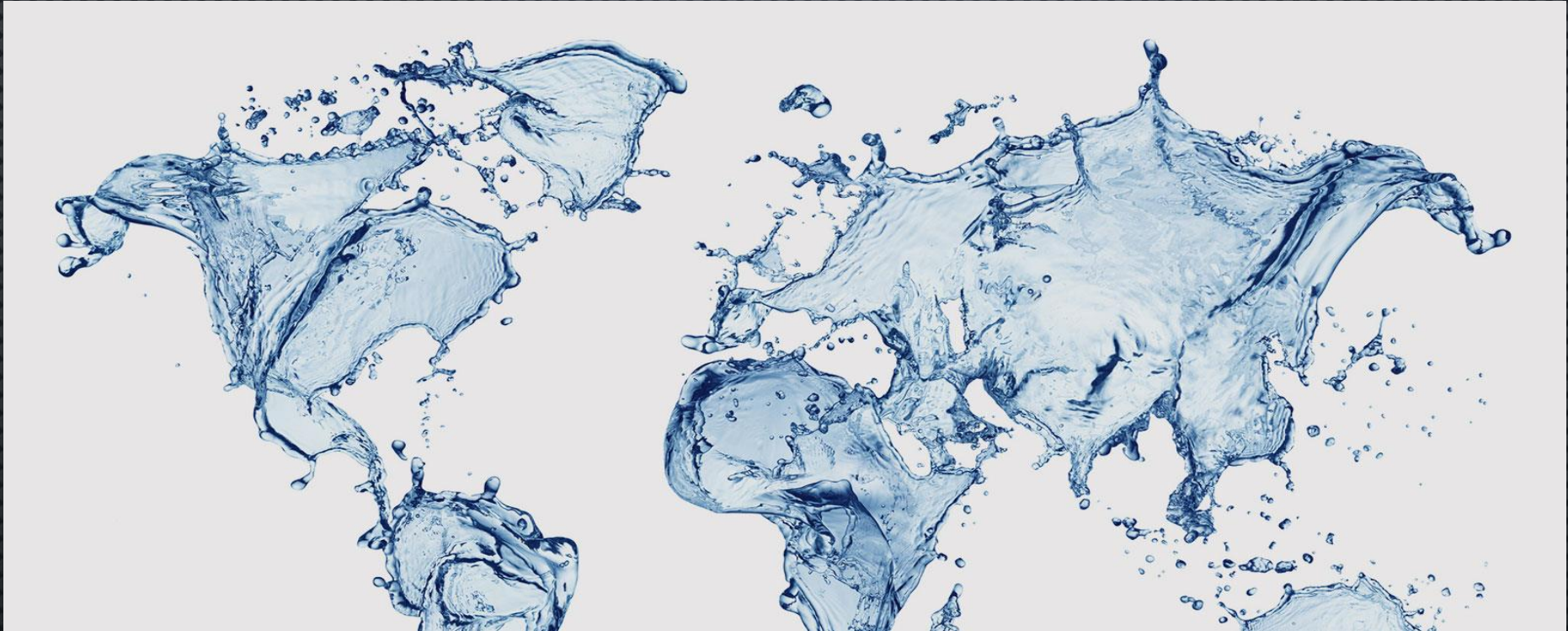
- BACKGROUND FOR INTEGRATED WATER RESOURCE MANAGEMENT (IWRM) INITIATIVES
- GRANT FUNDING OPPORTUNITIES AND BENEFITS
- PROJECT IDEAS AND APPLICATIONS







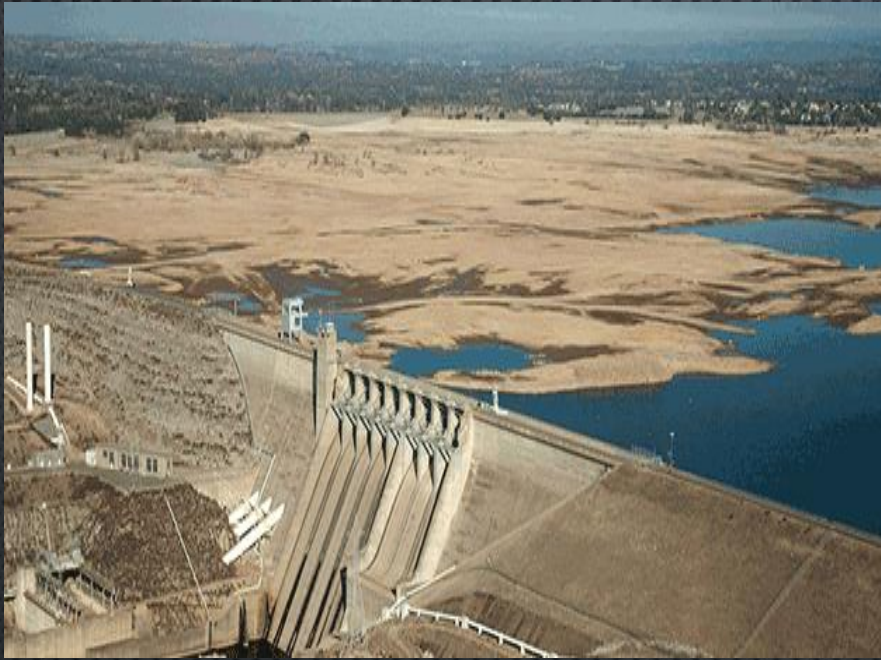
# Integrated Water Resource Management is...



A comprehensive approach to balance water needs throughout a watershed as it relates to the natural resources, potable water supplies, stormwater management, agricultural uses, flood control and commercial processing.



# Integrated Water Resource Management



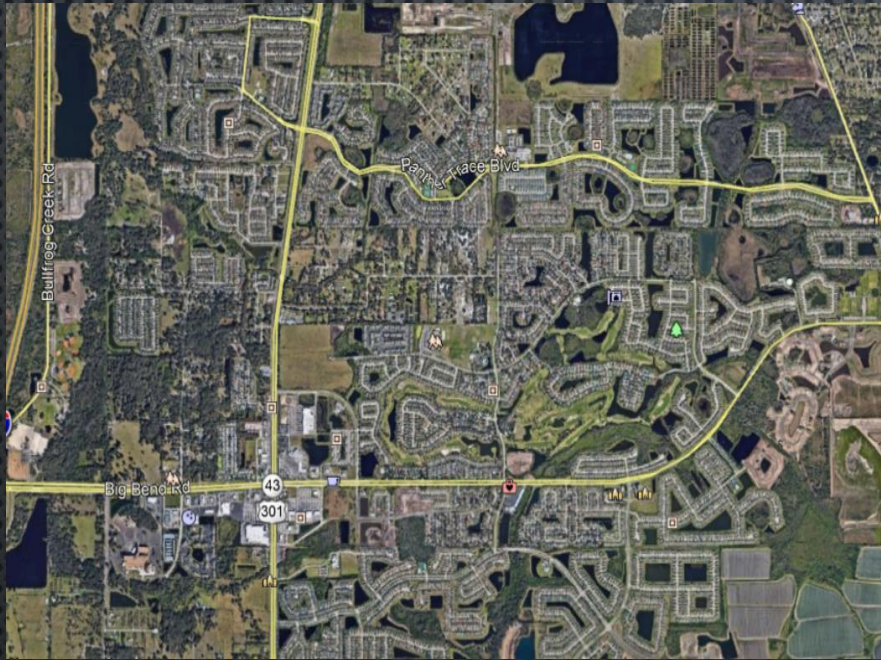
- Water Supply Demand
- Resiliency
- Alternative Sources
- Source Security

- Wastewater Processing
- New Treatment Technology
- Potable Supply Considerations





# Integrated Water Resource Management



- Stormwater Management
- Regional Solutions
- More Purposeful Use of Real Estate

- Restoration Projects
- Promote Recharge
- Water Quality Enhancements
- Create Habitat





# Integrated Water Resource Management



- Flood Control
- Plan Infra-structure Upgrades
- Prevent Future Repair Costs

- Groundwater Recharge
- Natural Opportunities as Opposed to Reservoirs
- Water Quality Improvements
- Future Supply





# Water Concerns for Florida

- Too much water during the rainy season and how to store this resource during the “dry” season
- Maintaining Minimum Flow Limitations within Rivers and Streams
- Aquifer Recharge
- Aging Infra-Structure & Long-Term Maintenance and Operation
- Environmental Permitting
- Political lines are different from watershed boundary lines



# Specific IWRM Initiatives in Florida

- Water Quality & More Practical Stormwater Management
- More dynamic thinking towards the overall Water Cycle
- Preserve and Plan for Water Supply Needs
- Asset Management
- Flood Control
- Sustainability
- Resiliency



## Holistic Thinking - Planning

- Identify and Prioritize Critical Needs
- Promote Sustainable Practices and Technologies
  - Water Resources
  - Stormwater Management
  - Agricultural Activities
- Develop Solutions that Address More than One Need
- Streamline Permitting Efforts



# Hardships involving IWRM Thinking

- Continuous Coordination amongst Stakeholders
- Cooperative Funding and Timing
- Impacts to Existing Infrastructure and Utilities
- Aligning Project Schedules amongst Stakeholders
- Leadership/Political Turn-over





# Environmental Permitting Considerations

- MUST DEMONSTRATE **NO** ADDITIONAL POLLUTANT LOAD, EVEN TO LOW-VALUE MANMADE WATERWAYS
- WMD REVIEWERS NEED SAFE HAVEN TO ACCEPT NON-TRADITIONAL W/Q APPROACHES
- DREDGE LEGACY SEDIMENTS – LAKE TOHO, LAKE O, IRL, LAKE JESUP, ETC.
- IMPROVE LAKE & COASTAL INLET CIRCULATION/FLUSHING
- ADDITIONAL EFFLUENT TREATMENT
- AGRICULTURE PARTNERING
- STORMWATER AS A RESOURCE – RECHARGE, REUSE
- **FDOT NEEDS CERTAINTY IN ITS ERP PROCESS TO AVOID PROJECT DELAYS**



## DOT MISSION STATEMENT:

“.... AND PRESERVES THE QUALITY OF OUR ENVIRONMENT AND COMMUNITIES.”

## DOT CHALLENGE:

- ✓ DON'T SETTLE FOR THE MINIMUM; SEEK OPPORTUNITIES THAT ADDRESS “REAL” WATERSHED NEEDS
- ✓ OVERCOMING THE “NO” REFLEX DUE TO AN INTERNAL PROCESS THAT TRADITIONALLY UPHOLDS OUR WORK PROGRAM PERFORMANCE MEASURES

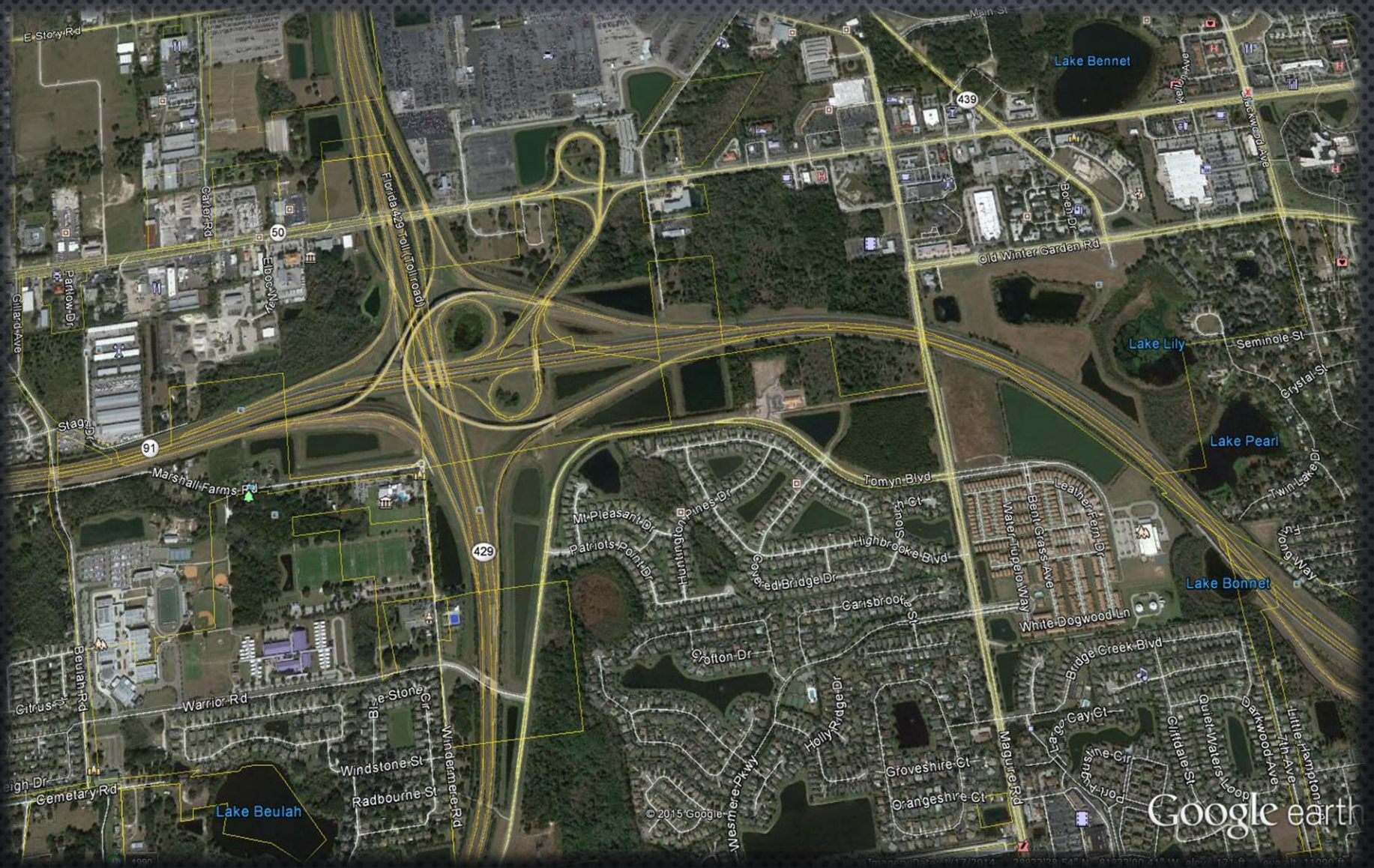




- Typically, stand-alone ponds are inefficient
- Cost of pond versus nutrient load reduction benefit is poor
- Aesthetic and Land Use impacts to neighboring communities.



# Traditional Stormwater Approach



Google earth

© 2015 Google  
Timestamp: 9/17/2014 12:52:23.547 N, -81:52:30.411 W, elev: 121.6 m, elev sb: 11000 ft



# NEW “WATERSS” APPROACH

“WATERSHED ANALYSIS TO EVALUATE REGIONAL STORMWATER SOLUTIONS”

## ✓ PURPOSE AND NEED:

- PROMOTE INTEGRATED WATER RESOURCE PRACTICES
- IDENTIFY WATERSHED NEEDS - **FIRST**
- DEFAULT TO STAND-ALONE FACILITIES – **LAST**
- PROMOTES SUSTAINABLE WATERSHED SOLUTIONS
- IDENTIFIES KEY STAKEHOLDER PARTNERSHIPS
- MORE EFFICIENT AND COST-EFFECTIVE SOLUTIONS



# “WATERSS” IS AN INTEGRATED WATER RESOURCE STRATEGY

## ✓ DESIRED OUTCOMES:

- RESTORE/PRESERVE THE NATURAL FUNCTIONS WITHIN THE WATERSHED
- SUPPORT LAND USE PLANNING
- ENHANCE/RESTORE AQUATIC ECOSYSTEMS
- ADDRESS WATER SUPPLY NEEDS
- COASTAL NEEDS TO ADDRESS SEA LEVEL RISE
- COST EFFECTIVE STORMWATER MANAGEMENT!!!!!!



# “WATERSS” IS AN INTEGRATED WATER RESOURCE STRATEGY

## ✓ ANTICIPATED HARDSHIPS:

- CONTINUOUS COORDINATION AMONGST STAKEHOLDERS
- LEADERSHIP/POLITICAL TURN-OVER
- ALIGNING PROJECT SCHEDULES AMONGST PARTICIPATING STAKEHOLDERS
- EASE OF PERMITTING
- PUBLIC ACCEPTANCE
- COOPERATIVE FUNDING!!!!!!



# FUNDING SOURCES & OPPORTUNITIES





# EPA FUNDING OPPORTUNITIES

## Funding & Financing

- Green Infrastructure Funding Opportunities [webpage](#)
  - [Master Summary](#) for Navigating Federal Funding for Green Infrastructure – list identifying project phases the funds can be applied to (planning & design, construction, O&M, monitoring)
- [Water Finance Clearinghouse](#): Web-based portal of funding sources & resources on financing mechanisms
  - [Stormwater Funding and Financing Webinar Series](#)
  - [Water Technical Assistance \(Water TA\)](#)
- SRF & BIL Resources for Clean Water
  - CWSRF BIL emerging contaminants set-aside: [details & resources](#)
  - Recent Fact Sheet: [Increasing Climate Resilience and Mitigation with the CWSRF and WIFIA Program \(2023\)](#)
- Grants - EPA posts all grant opportunities on <https://www.epa.gov/grants> & [grants.gov](https://www.grants.gov).
  - **Centers of Excellence for Stormwater Infrastructure Technologies** (in the works): Authorized in FY23 budget, EPA is working internally to build this new grant program

### Green Infrastructure Funding Opportunities

#### What's New

- [Department of Energy Quilicura Upgrade Prize](#) ☞ for cash prizes and technical assistance to teams with winning ideas to accelerate widespread, equitable energy efficiency and building electrification upgrades. Informational webinar **Thursday, February 2 at 12 PM ET**. [Register](#) ☞ to join and learn more about the Prize. Due Date: **February 15, March 15, and April 14 2023**.
- NPWF's (EXTERNAL with federal funding) [FY23 National Fish & Wildlife Foundation \(NPWF\) - National Coastal Resilience Fund](#) ☞ Planning, design, and restoration of natural and nature-based solutions to help protect coastal communities from the impacts of storms, floods, and other natural hazards and enable them to recover more quickly and enhance habitats for fish and wildlife. Pre-Proposal Due Date: **April 12, 2023**. Full Proposal Invitations: Mid to End of May 2023. Full Proposal by Invite Only Due Date: June 28, 2023.
- National Fish & Wildlife Foundation (NPWF) (external with support from DOI, DOD, DPS, NRCIS) [FY23 National Fish & Wildlife Foundation \(NPWF\) - America the Beautiful Challenge \(ATBC\)](#) ☞ For new voluntary conservation and restoration projects. To enable applicants to conceive and develop large scale, locally led projects that address shared funder priorities spanning public and private lands. Pre-Proposal Due Date: **April 20, 2023**. Full Proposal Due Date (by invitation only): **July 20, 2023**
- FEMA [prevention plan support](#) ☞ under the [Subversive Terrorism \(ST\) and Domestic Risk Mitigation \(DRM\) Act](#) ☞ became law on Jan. 1, 2022. FEMA to provide capitalization grants to **states, eligible territories and the District of Columbia** to assist "hazard mitigation assistance for local government hazards and disasters. These groups -"  
-11/26/2022



## VIEW GRANT OPPORTUNITY

[« Back](#) | [Link](#)

EPA-I-R4-SFL-2023-01  
 2023 SOUTH FLORIDA PROGRAM  
 Environmental Protection Agency

**Apply****Subscribe****SYNOPSIS**

VERSION HISTORY

RELATED DOCUMENTS

PACKAGE

[Print Synopsis Details](#)

## General Information

|  |   |
|--|---|
| <b>Document Type:</b> Grants Notice  | <b>Version:</b> Synopsis 2                                  |
| <b>Funding Opportunity Number:</b> EPA-I-R4-SFL-2023-01  | <b>Posted Date:</b> May 18, 2023                            |
| <b>Funding Opportunity Title:</b> 2023 SOUTH FLORIDA PROGRAM   | <b>Last Updated Date:</b> May 19, 2023                      |
| <b>Opportunity Category:</b> Discretionary   | <b>Original Closing Date for Applications:</b> Jul 14, 2023 |
| <b>Opportunity Category Explanation:</b>   | <b>Current Closing Date for Applications:</b> Jul 14, 2023  |
| <b>Funding Instrument Type:</b> Cooperative Agreement  | <b>Archive Date:</b> Aug 13, 2023                           |
| <b>Category of Funding Activity:</b> Environment<br>Infrastructure Investment and Jobs Act (IIJA)      | <b>Estimated Total Program Funding:</b> \$8,000,000         |
| <b>Category Explanation:</b>   | <b>Award Ceiling:</b> \$650,000                             |
| <b>Expected Number of Awards:</b> 15   | <b>Award Floor:</b>   |
| <b>CFDA Number(s):</b> 66.484 -- Geographic Programs - South Florida<br>Geographic Initiatives Program |   |
| <b>Cost Sharing or Matching Requirement:</b> No  |   |



# VIEW GRANT OPPORTUNITY

« Back | Link



FR-6700-N-91A

Green and Resilient Retrofit Program (GRRPC) Comprehensive  
Department of Housing and Urban Development

**Apply**

**Subscribe**

- SYNOPSIS**
- VERSION HISTORY
- RELATED DOCUMENTS
- PACKAGE

Print Synopsis Details 

## General Information

|  |   |
|--|---|
| <b>Document Type:</b> Grants Notice  | <b>Version:</b> Synopsis 2  |
| <b>Funding Opportunity Number:</b> FR-6700-N-91A   | <b>Posted Date:</b> May 11, 2023  |
| <b>Funding Opportunity Title:</b> Green and Resilient Retrofit Program (GRRPC) Comprehensive | <b>Last Updated Date:</b> May 11, 2023  |
| <b>Opportunity Category:</b> Discretionary   | <b>Original Closing Date for Applications:</b> May 30, 2024 The application deadline is 11:59:59 PM Eastern time on |
| <b>Opportunity Category Explanation:</b>   | <b>Current Closing Date for Applications:</b> May 30, 2024 The application deadline is 11:59:59 PM Eastern time on  |
| <b>Funding Instrument Type:</b> Other  | <b>Archive Date:</b>  |
| <b>Category of Funding Activity:</b> Housing   | <b>Estimated Total Program Funding:</b> \$1,470,000,000   |
| <b>Category Explanation:</b>   | <b>Award Ceiling:</b> \$20,000,000  |
| <b>Expected Number of Awards:</b> 300  | <b>Award Floor:</b> \$1   |
| <b>CFDA Number(s):</b> 14.021 -- Green and Resilient Retrofit Program                        |   |
| <b>Cost Sharing or Matching Requirement:</b> Yes   |   |



# VIEW GRANT OPPORTUNITY



**F23AS00032**  
**F23AS00032 - 2023 Coastal Program**  
 Department of the Interior  
 Fish and Wildlife Service

« Back | Link

**Apply** **Subscribe**

**SYNOPSIS** VERSION HISTORY RELATED DOCUMENTS PACKAGE

Print Synopsis Details ?

**General Information**

|   |  |
|---|--|
| <b>Document Type:</b> Grants Notice                                 | <b>Version:</b> Synopsis 3   |
| <b>Funding Opportunity Number:</b> F23AS00032                       | <b>Posted Date:</b> Sep 21, 2022   |
| <b>Funding Opportunity Title:</b> F23AS00032 - 2023 Coastal Program | <b>Last Updated Date:</b> Nov 15, 2022   |
| <b>Opportunity Category:</b> Discretionary                          | <b>Original Closing Date for Applications:</b> Sep 30, 2023 Electronically submitted applications must be submitted no later than 11:59 PM, ET, on the listed application due date. Applications are accepted on a rolling basis between October 1, 2022 and September 29, 2023. In order for applications to be considered for funding in FY23, they must be submitted by June 30, 2023. Applications received after June 30, 2023, may not be awarded until the following fiscal year. |
| <b>Opportunity Category Explanation:</b>                            | <b>Current Closing Date for Applications:</b> Sep 30, 2023 Electronically submitted applications must be submitted no later than 11:59 PM, ET, on the listed application due date. Applications are accepted on a rolling basis between October 1, 2022 and September 29, 2023. In order for applications to be considered for funding in FY23, they must be submitted by June 30, 2023. Applications received after June 30, 2023, may not be awarded until the following fiscal year.  |
| <b>Funding Instrument Type:</b> Cooperative Agreement Grant         | <b>Archive Date:</b>   |
| <b>Category of Funding Activity:</b> Natural Resources              | <b>Estimated Total Program Funding:</b> \$6,000,000  |
| <b>Category Explanation:</b>  | <b>Award Ceiling:</b> \$200,000  |
| <b>Expected Number of Awards:</b>                                   | <b>Award Floor:</b> \$1  |
| <b>CFDA Number(s):</b> 15.630 -- Coastal                            |  |
| <b>Cost Sharing or Matching Requirement:</b> No                     |  |





# COMING SOON: A competitive funding opportunity focused on coastal resilience

## Background

Approximately \$575 million will be available for projects that build the resilience of coastal communities to extreme weather (e.g., hurricanes and storm surge) and other impacts of climate change (e.g., sea level rise, drought). Funding is made possible by the [Inflation Reduction Act](#), a historic, federal government-wide investment that is advancing NOAA's efforts to build [Climate-Ready Coasts](#).

**APPLICATION DETAILS WILL BE AVAILABLE SOON. In the meantime, we hope this overview material will be helpful.**

- **The focus of this grant program** is on holistic, collaborative approaches designed to increase resilience in coastal regions. Proposed projects should address risk reduction, regional collaboration, equity, and building enduring capacity for adaptation.
- **NOAA technical assistance** is available for organizations applying for and receiving a grant. Many technical assistance options are available, including data, tools, training, and access to NOAA scientific and management expertise.





# FACT SHEETS

## Fact Sheets

The [Infrastructure Investment and Jobs Act \(IIJA\)](#) ([Public Law 117-58](#), also known as the "[Bipartisan Infrastructure Law](#)") is a once-in-a-generation investment in our infrastructure that will help grow the economy, enhance U.S. competitiveness, create good jobs, and build our safe, resilient, and equitable transportation future.

The FHWA is here to educate our stakeholders and the public on key information on the Bipartisan Infrastructure Law's highway provisions.

- [Advanced Transportation Technologies and Innovation \(ATTAIN\)](#) (PDF 145 kb)
- [Apportionment](#) (PDF 172 kb)
- [Bridge Investment Program \(BIP\)](#) (PDF 172 kb)
- [Bridge Formula Program \(BFP\)](#) (PDF 132 kb)
- [Carbon Reduction Program \(CRP\)](#) (PDF 210 kb)
- [Charging and Fueling Infrastructure Discretionary Grant Program](#) (PDF 206 kb)
- [Congestion Mitigation and Air Quality \(CMAQ\) Improvement Program](#) (PDF 139 kb)
- [Congestion Relief Program](#) (PDF 116 kb)
- [Disadvantaged Business Enterprise Supportive Services Program \(DBE-SS\)](#) (PDF 78 kb)
- [Emergency Relief Program \(ER\)](#) (PDF 172 kb)
- [Federal Lands Access Program \(FLAP\)](#) (PDF 141 kb)
- [Federal Lands Transportation Program \(FLTP\)](#) (PDF 150 kb)
- [Federal Share Fact Sheet](#) (PDF 185 kb)
- [Ferry Boat Program \(FBP\)](#) (PDF 162 kb)
- [Highway Safety Improvement Program \(HSIP\)](#) (PDF 190 kb)
- [Metropolitan Planning Program \(MPP\)](#) (PDF 170 kb)
- [National Culvert Removal, Replacement, and Restoration Grants \(Culvert AOP Program\)](#) (PDF 143 kb)
- [National Electric Vehicle Infrastructure \(NEVI\) Formula Program](#) (PDF 150 kb)
- [National Highway Freight Program \(NHFP\)](#) (PDF 140 kb)
- [National Highway Performance Program \(NHPP\)](#) (PDF 136 kb)
- [Nationally Significant Federal Lands and Tribal Projects Program \(NSFLTP\)](#) (PDF 36 kb)
- [Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation \(PROTECT\) Formula Program](#) (PDF 155 kb)
- [Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation \(PROTECT\) Discretionary Grant Program](#) (PDF 182 kb)
- [Railway-Highway Crossings Program \(RHCP\)](#) (PDF 157 kb)
- [Reconnecting Communities Pilot Program \(RCP\)](#) (PDF 162 kb)
- [Reduction of Truck Emissions at Port Facilities](#) (PDF 107 kb)
- [Rural Surface Transportation Grant Program](#) (PDF 84 kb)
- [Safe Streets and Roads for All \(SS4A\)](#) (PDF 260 kb)
- [Surface Transportation Block Grant \(STBG\)](#) (PDF 170 kb)
- [Territorial and Puerto Rico Highway Program](#) (PDF 127 kb)
- [Training and Education](#) (PDF 172 kb)
- [Transportation Alternatives \(TA\)](#) (PDF 142 kb)
- [Tribal Transportation Program \(TTP\)](#) (PDF 181 kb)

For additional information on State by State benefits, visit [USDOT Fact Sheets](#).



# Bipartisan Infrastructure Law (BIL) Funding for Florida

| State   | Actual   | Actual   | Actual   | Estimated | Estimated | Estimated |
|---------|----------|----------|----------|-----------|-----------|-----------|
|         | FY 2021  | FY 2022  | FY 2023  | FY 2024   | FY 2025   | FY 2026   |
| Florida | \$2.07 B | \$2.51 B | \$2.56 B | \$2.61 B  | \$2.66 B  | \$2.72 B  |

Total Estimated Funding for Florida  
Between FY 2021 and FY 2026

**\$15.13 Billion!!!**



# APPLICABLE BIL GRANT PROGRAMS FOR FLORIDA BETWEEN FY 2022 AND FY 2026

- Congestion Relief Program - \$320,386,861
- MPP - \$142,142,633
- PROTECT – \$364,302,815
- SS4A –
- STBG - \$3,593,123,672

# MUNICIPAL FUNDING STRATEGIES

## ➤ STORMWATER MANAGEMENT FEES

- PROPERTY TAXES

## ➤ SPECIAL TAXING

- COMMUNITY
- WATERSHED



# STATE FUNDING OPPORTUNITIES

- WATER MANAGEMENT DISTRICTS (WMDs)
  - COOPERATIVE FUNDING INITIATIVES (MATCHING)
  - VARIOUS WATER QUALITY GRANTS
- FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
  - COOPERATIVE GRANTS
- FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT)
  - LOCAL AGENCY PROGRAM (LAP) AGREEMENTS
  - JOINT PARTICIPATION AGREEMENTS (JPAs)
  - INFRA-STRUCTURE/STORMWATER IMPROVEMENTS
- FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES (FDACS)

# FUNDING PARTNERSHIP OPPORTUNITIES

- PUBLIC-PRIVATE-PARTNERSHIPS (PPP)
- FDOT/FDACS
- WMDS/FDEP
- OTHER MUNICIPALITIES



# PROJECT IDEAS & APPLICATIONS

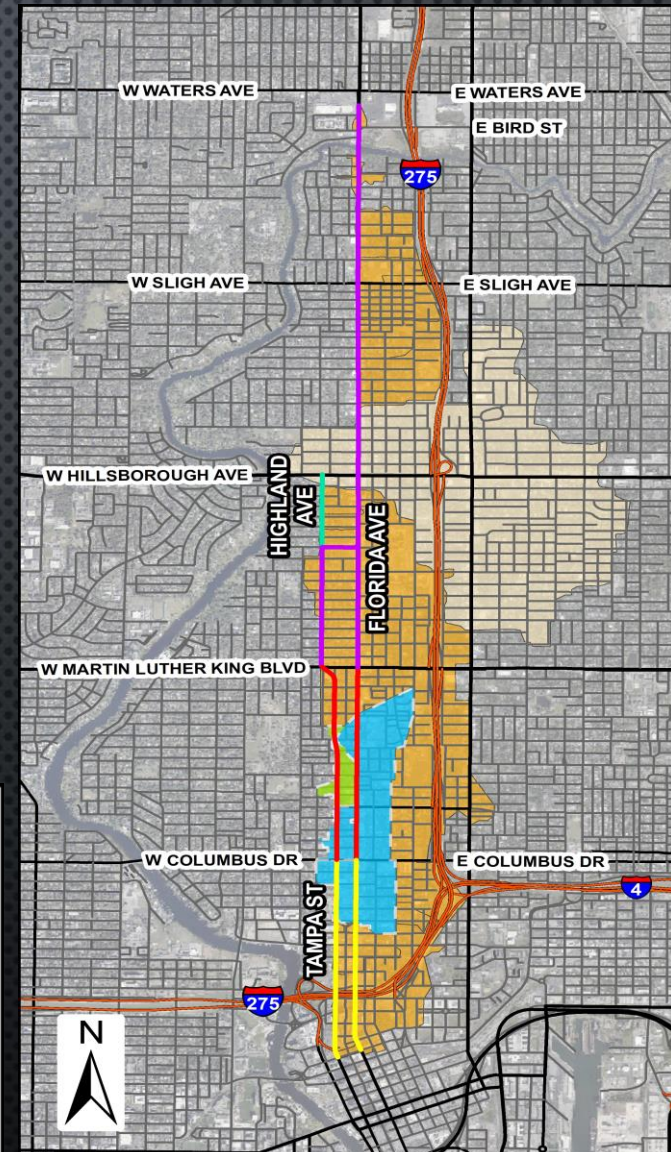
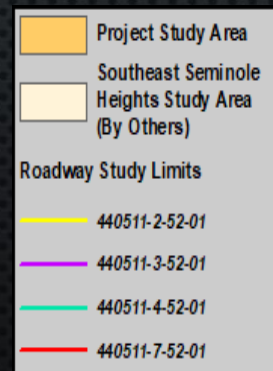
➤ TAMPA HEIGHTS DRAINAGE UPGRADES

➤ LAKE TRAFFORD REGIONAL TREATMENT



# OVERVIEW OF HEIGHTS MOBILITY STUDY AND NEXT STEPS

- HEIGHTS MOBILITY STUDY (US 41 FROM E. TYLER ST. TO WATERS AVE.) FPID 440511-2, 440511-3, 440511-4, 440511-7
  - EXISTING FLOODING ISSUES
  - COMPLETED TASKS
  - PROPOSED OUTFALL IMPROVEMENTS IN DOWNTOWN
- CITY OF TAMPA STREETCAR EXTENSION OVERLAP
- HEIGHTS OUTFALL ALTERNATIVES APPROACH
  - GENERAL TASKS
  - SWFWMD COOPERATIVE FUNDING INITIATIVE (CFI)
  - SPECIFIC TASKS







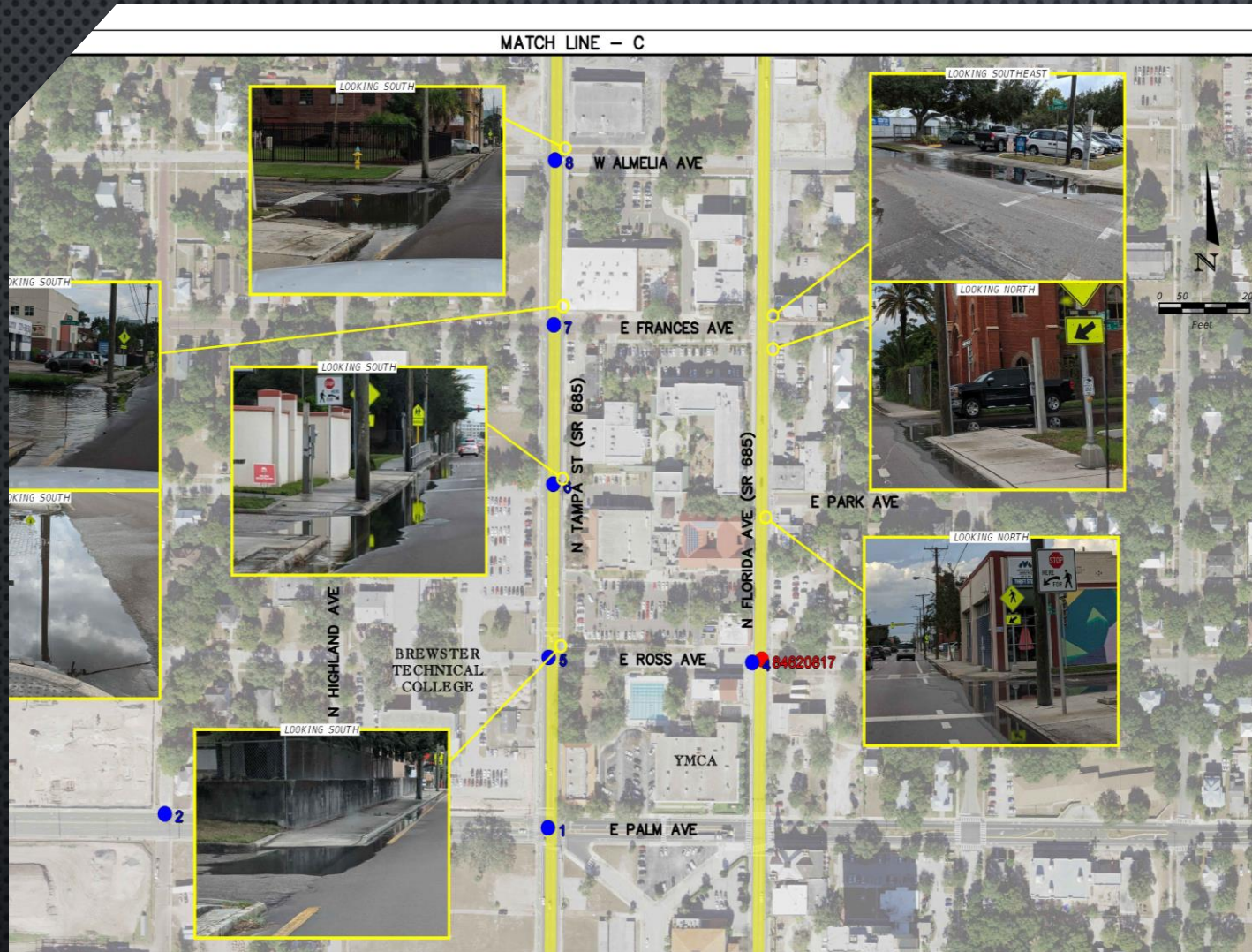
# HEIGHTS MOBILITY STUDY FLOODING / SAFETY ISSUES

- WHEEL SPLASH IMPACTING PEDESTRIANS AND BICYCLISTS AND BUSINESSES
- FLOODED ROADWAYS
- LANE CLOSURES AND ACCIDENTS





# HEIGHTS MOBILITY STUDY: TASKS COMPLETED



- IDENTIFIED EXISTING MAJOR OUTFALLS
- DELINEATED CONTRIBUTING BASINS
- RESEARCHED FLOODING AREAS
- IDENTIFIED CONCEPTUAL OUTFALL IMPROVEMENTS ALONG CORRIDOR
- ESTIMATED RUNOFF USING RATIONAL METHOD TO SIZE OUTFALL IMPROVEMENTS

| LEGEND |   | STATE OF FLORIDA<br>DEPARTMENT OF TRANSPORTATION |              |  | DOCUMENTED FLOODING MAP (3) |
|--------|---|--|--------------|--|-----------------------------|
| ★      | FDOT FLOOD COMPLAINT<br>(SEE TABLE FOR MORE INFORMATION)<br>NOTE:<br>RAIN-DAY PHOTOS TAKEN 10/7/19 & 10/29/19 | ROAD NO.   | COUNTY       | FINANCIAL PROJECT ID                               |                             |
|        |   | SR 685   | HILLSBOROUGH | 440511-2-52-01<br>440511-3-52-01<br>440511-4-52-01 |                             |

ICON CONSULTANT GROUP, INC.  
 10006 N. DALE MABRY HIGHWAY, SUITE 201  
 TAMPA, FL 33618  
 John MacIsaac 3/21/2020 4:05:11 PM P:\Projects\FDOT0025\_DP\_DP Stormwater\FDOT0025\_M Heights Mobility Drop Study







# HEIGHTS OUTFALL CFI WATER QUALITY “BONUS”

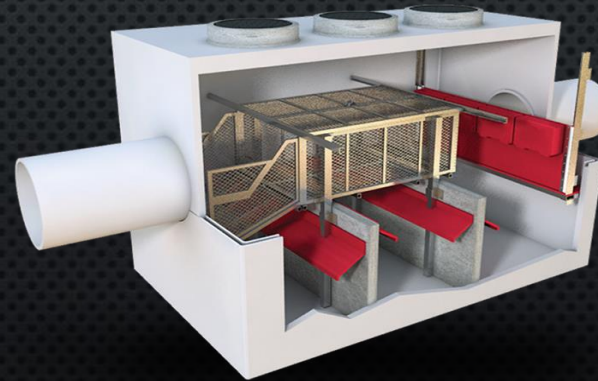
## ➤ NOT REQUIRED

- FULFILLS SWFWMD REGIONAL PRIORITY OF “IMPROVING TAMPA BAY”
- INCREASES BENEFIT/COST RATIO
- TREATMENT CREDITS FOR FUTURE PROJECTS CANNOT BE EARNED



## ➤ SCOPE INCLUDES IDENTIFYING 6 POTENTIAL LOCATIONS FOR INSTALLATION OF AN INLINE TREATMENT SYSTEM

- CONCEPT HAS BEEN COORDINATED WITH MAINTENANCE





# FUNDING SUMMARY

- Tampa Height Mobility Corridor (RAISE Grant) - \$18,000,000
- CFI Application preparation cost \$20,000
- From Tyler St. to MLK Blvd. (estimate = \$38M, currently programmed \$29M)
- Drainage conceptual cost estimate \$17.1M
  - Includes only drainage not surface restoration
- Significant cost savings to FDOT with CFI funding

## SWFWMD CFI Grants Obtained for Tarpon Springs

| Project ID   | Grant Funding Agency | Agency Project ID | Grant Funding to City of Tarpon Springs |
|--|----------------------|-------------------|---|
| <b>Pent Street / Grosse Avenue Roadway and Stormwater Improvements</b> | SWFWMD               | Q053              | \$1,505,240                             |
| <b>Palm Avenue Roadway and Stormwater Improvements</b>                 | SWFWMD               | N867              | \$249,979                               |
| <b>Highland Ave./Jasmine Ave. Roadway and Stormwater Improvements</b>  | SWFWMD               | N782              | \$138,670                               |
|  |                      |                   | <b>\$1,893,889</b>                      |



# Lake Trafford – Collier County





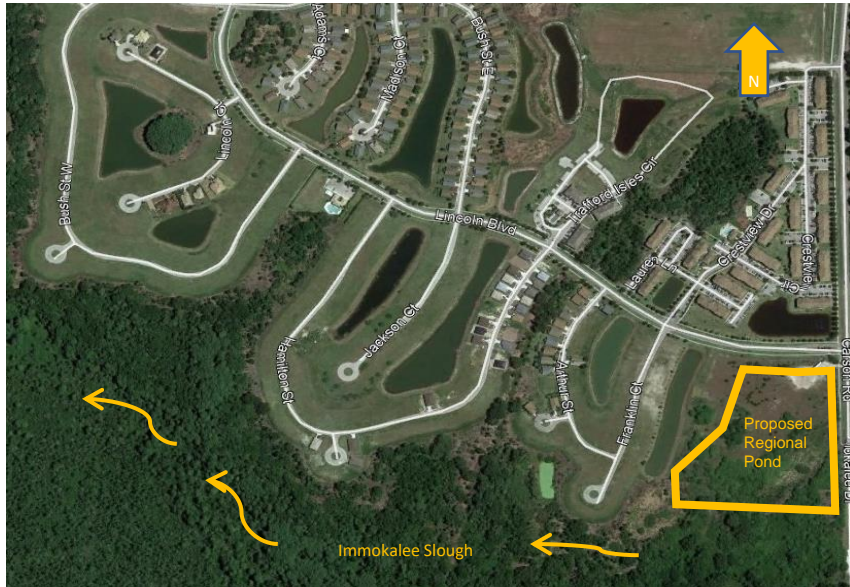
# IWM Approach for Water Quality





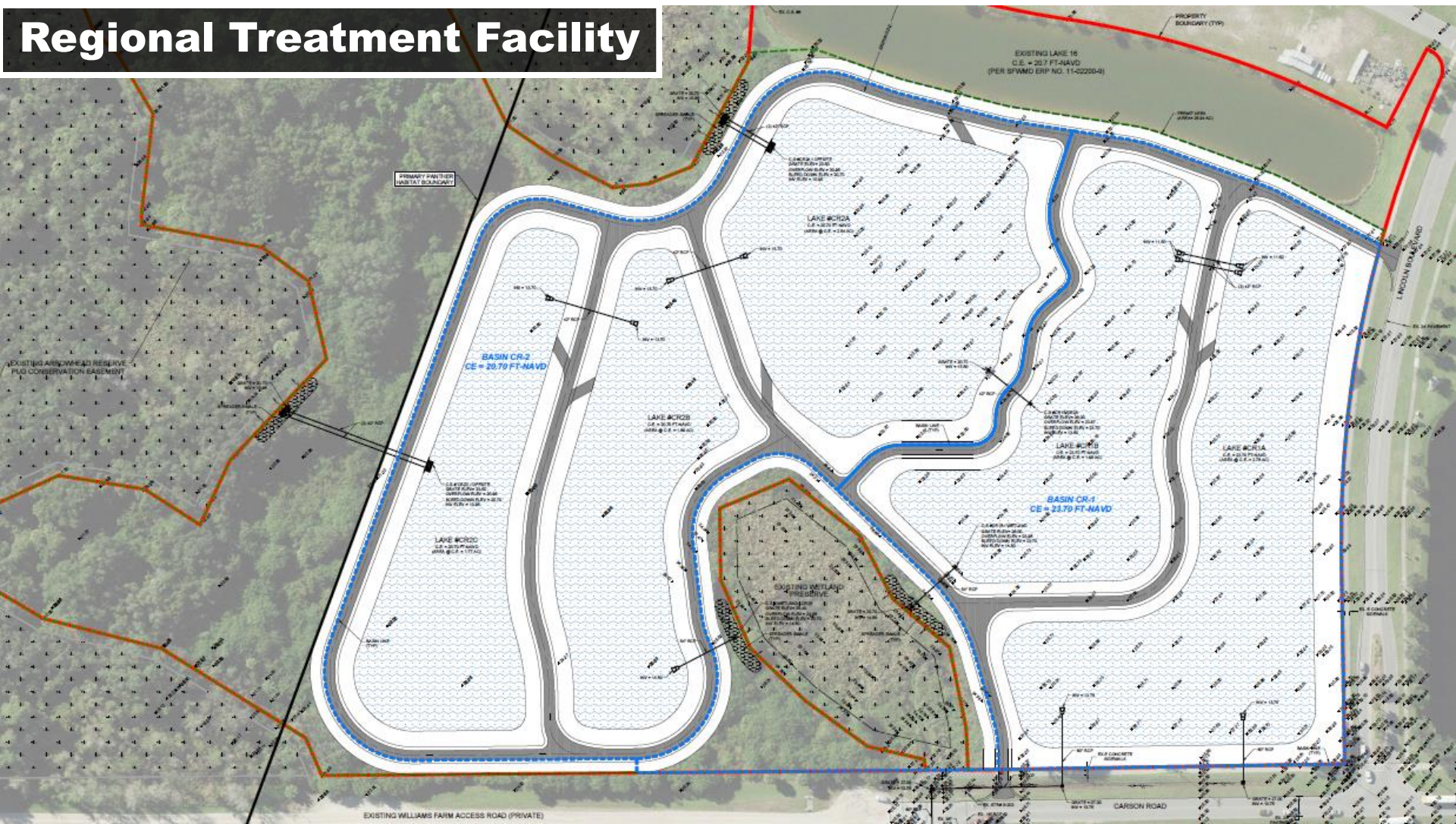
# Lake Trafford Regional Stormwater Pond

- Regional Approach to Improve Water Quality for Lake Trafford
- Achieve Dual Goal of Flood Relief with Restoration of Lake Trafford Basin Runoff
- Create an Environmentally Friendly Park for Education and Recreational Purposes
- Maximize Nutrient Load Reductions
- Highlight Benefits of Capturing Untreated Runoff to Slough
- Regional Pond Design to Establish Appropriate Groundwater Stages to Preserve Intended Function





# Regional Treatment Facility



- Separate Into Lower and Upper Bays by Receiving Area
- Extend Flow Path For Increased Settling Time in Typical Storms
- Trash Removal
- Allow Larger Storm Events to Bypass Flow Path to Maintain Tailwater





## Concluding Thoughts

- IWRM Requires Dynamic Thinking, Planning and Coordination
- Ability to Target Specific Water Resource Needs
- Supplement Projects with Grant Money for Added Benefits



# THANKS FOR YOUR TIME!!!!

CARLTON D SPIRIO, JR., P.E.  
SECTION DIRECTOR  
DRAINAGE/ENVIRONMENTAL  
BURGESS & NIPLE  
1511 WESTSHORE BLVD,  
SUITE 500  
TAMPA, FLORIDA 33607  
(813) 363-9429  
CARL.SPIRIO@BURGESSNIPLE.COM

**BURGESS & NIPLE**  
Engineers ■ Planners