



Wastewater ● Stormwater

*Partnership*

[www.pinellascounty.org/taskforce](http://www.pinellascounty.org/taskforce)

# Progress Report

# Presentation Highlights

**1. Review of Goals & Action Plan**

**2. Progress to Date**

**3. Q&A**

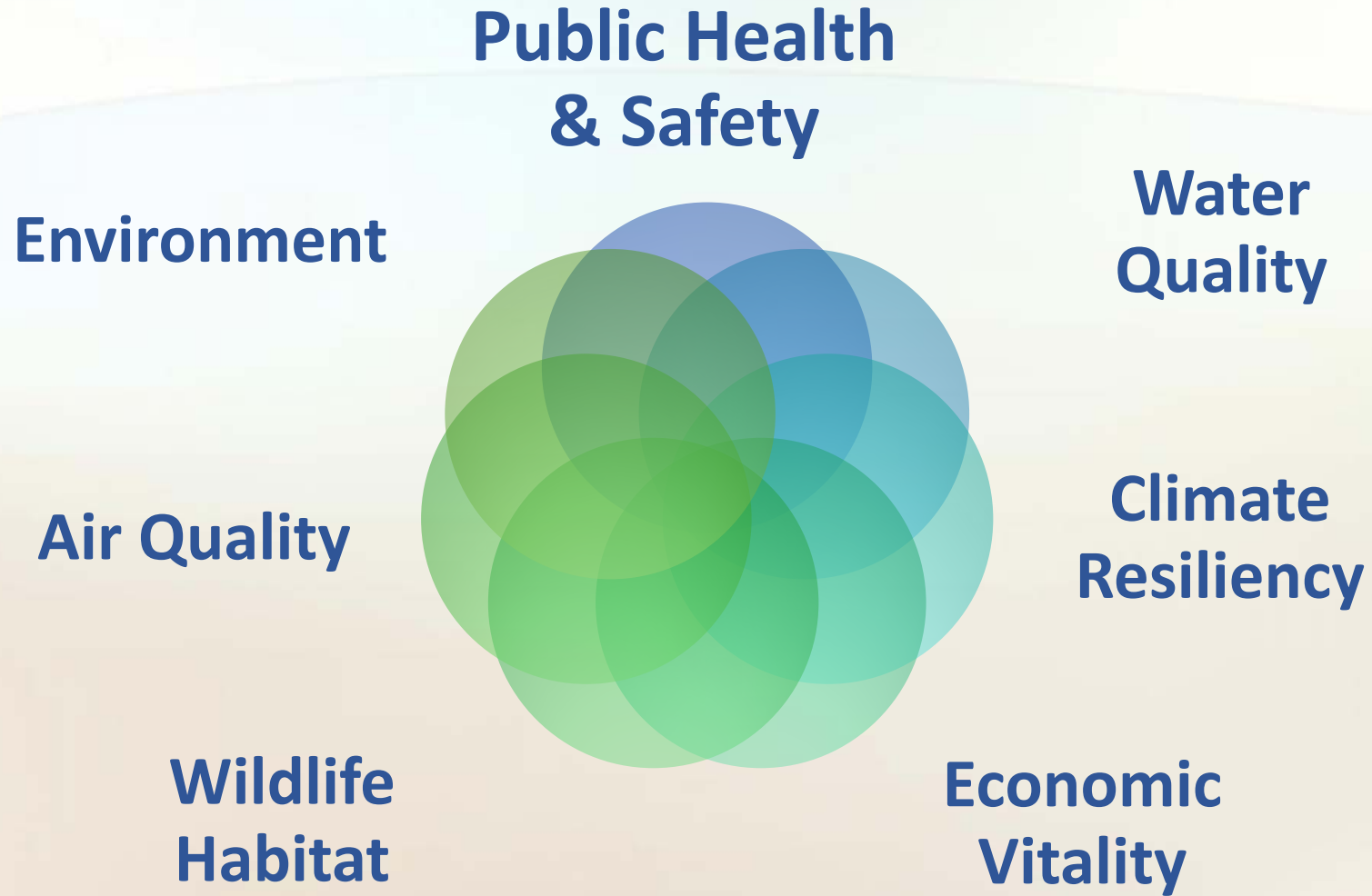


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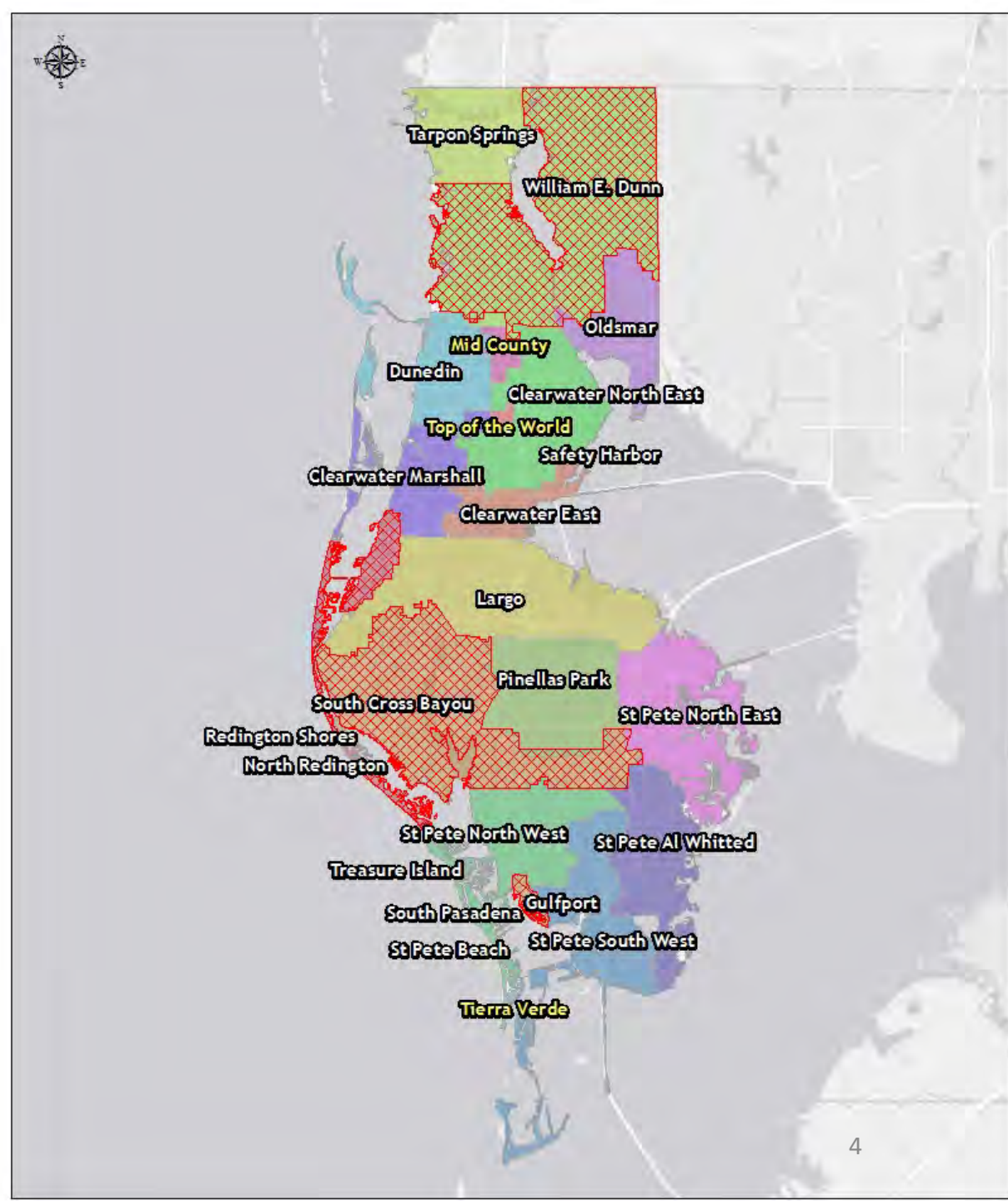
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# Protecting our Waters is a Shared Priority in Pinellas County



# County, City and Private Sewer Systems

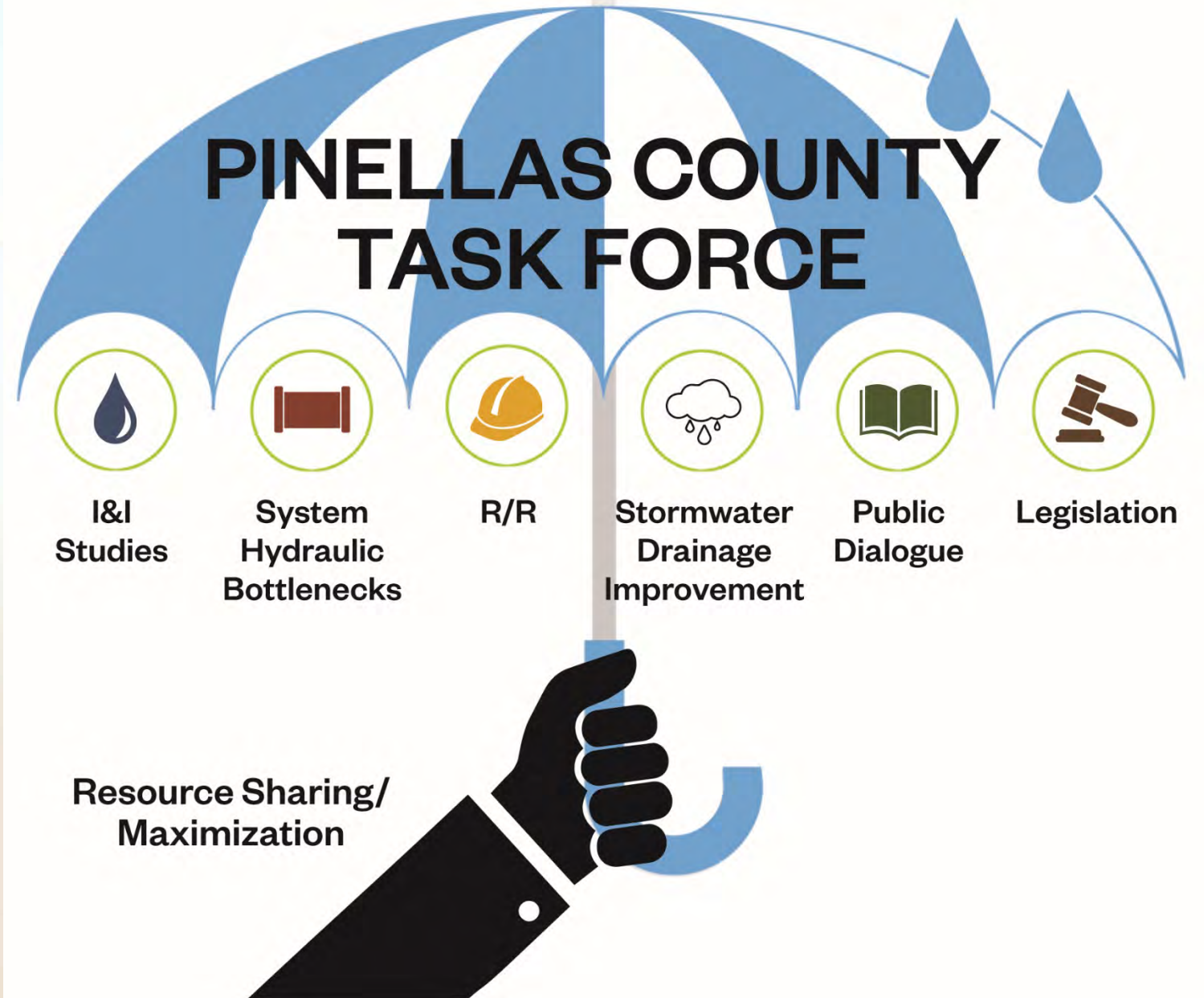
- **24** Municipalities
- **306,495** Sewer Customers
- **12** Wastewater Treatment Plants
- **155 MGD** Total Wastewater Treatment Capacity

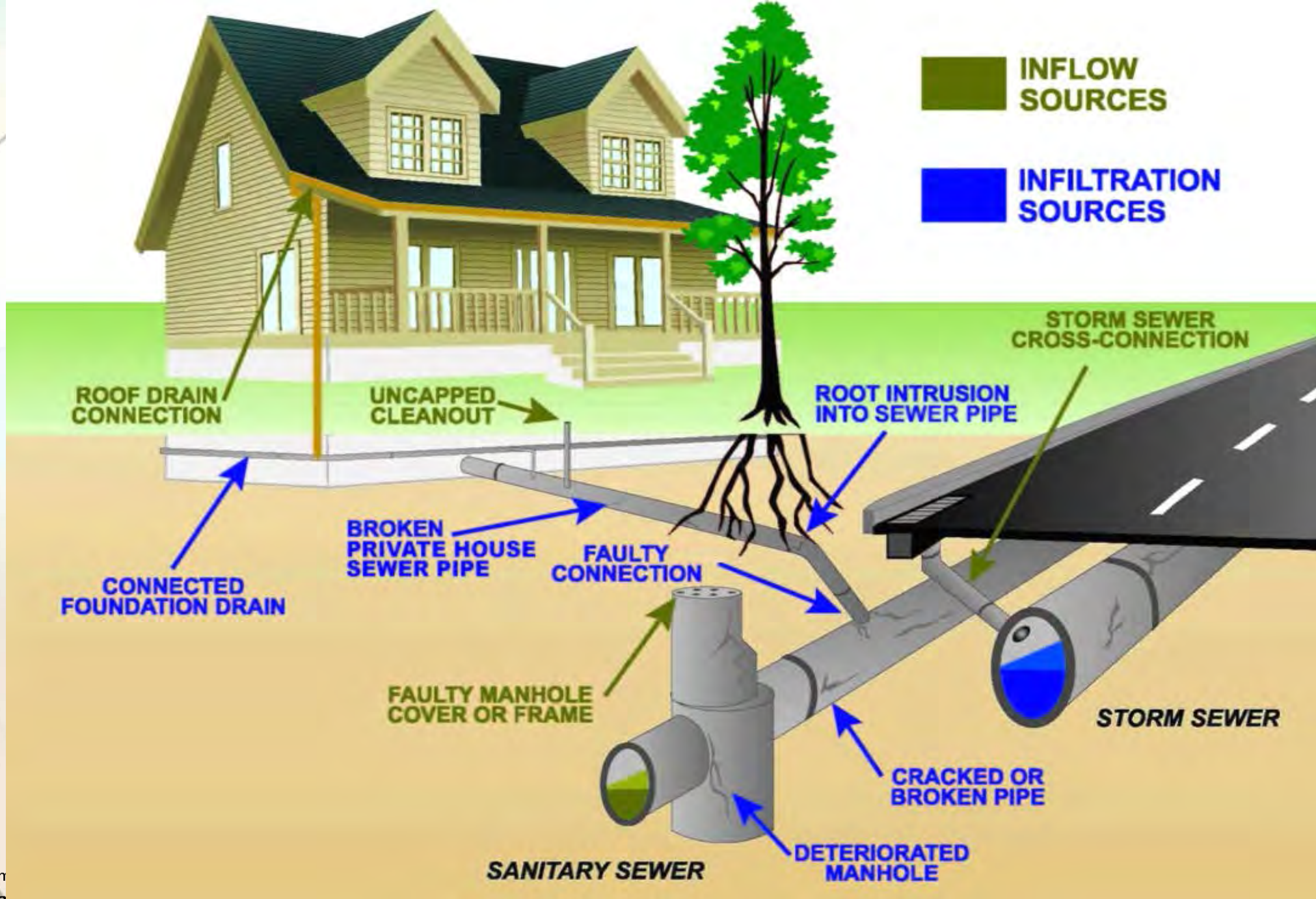


# Task Force Goals

- **Avoid and mitigate** spills, overflows and releases of sewage into the environment, particularly water bodies
- **Seek opportunities** to address drainage and stormwater issues that impact the sewer system
- **Increase capacity and resiliency** of collective sewer system and wastewater treatment infrastructure

# Action Plan





**INFLOW SOURCES**

**INFILTRATION SOURCES**

# Overall Projects and Budget FY 18

✓ **182 Funded Projects**

✓ **Wastewater Budget**





*Capital Improvements: \$141 M*

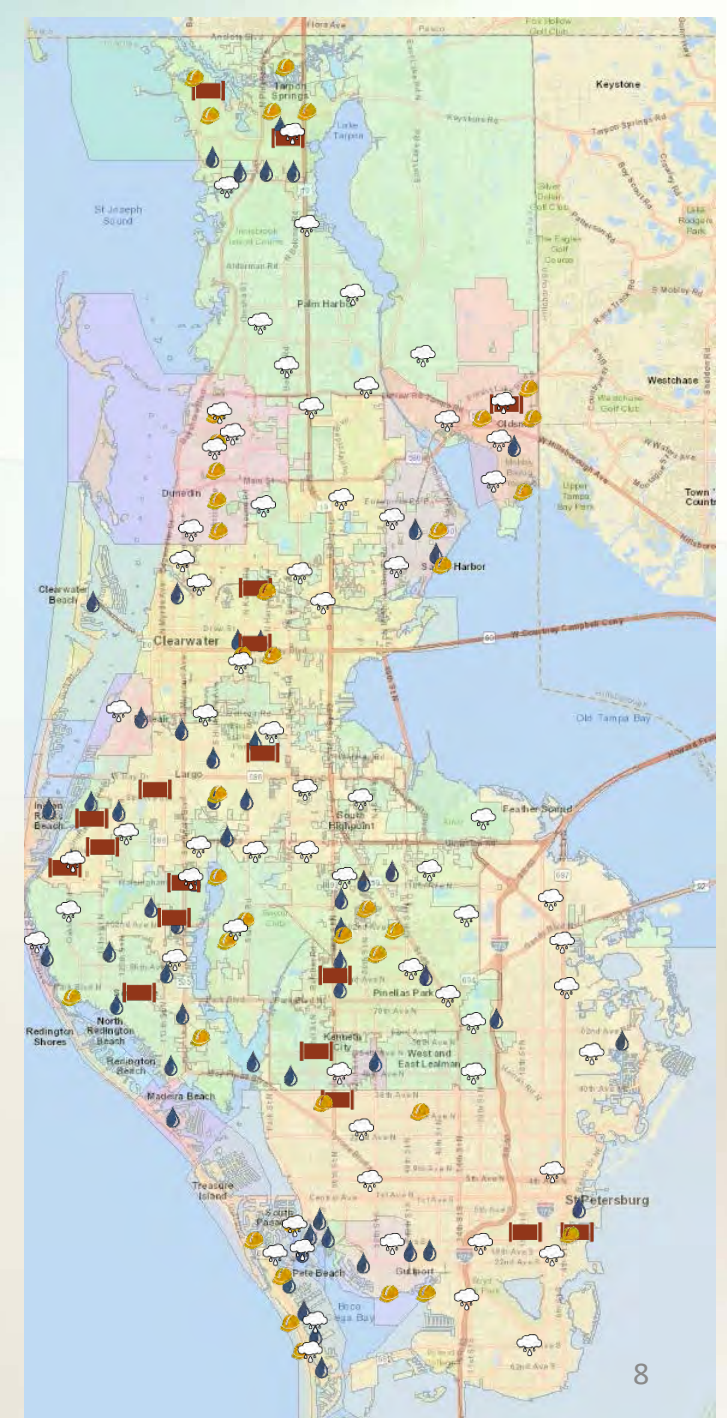
*Operating Expenses: \$400 M*

✓ **Stormwater Budget**

*Capital Improvements: \$39 M*

*Operating Expenses: \$94 M*

	51 - Inflow and Infiltration Studies
	18 - Address System Hydraulic Bottlenecks
	31 - Rehabilitation and Replacement
	82 - Stormwater Drainage Improvements





# Inflow and Infiltration (I&I) Initiatives

- ✓ **51 Projects**
- ✓ Efforts Include
  - ✓ Cleaning and Inspections
  - ✓ Smoke Testing
  - ✓ Flow monitoring
  - ✓ Hydraulic modeling





# Inflow and Infiltration Studies

## Pinellas County – South County Flow Monitoring

- ✓ 3 – Year Study
- ✓ Predictive tool to identify sanitary sewer overflow events
- ✓ Mitigation strategies



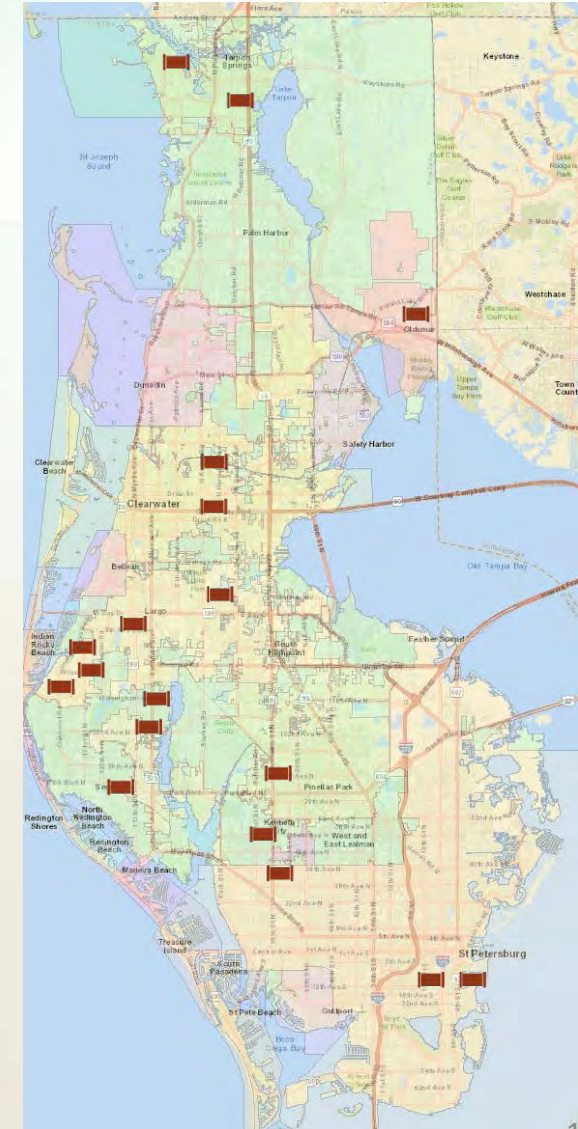


# Inflow and Infiltration Initiatives



# Address System Hydraulic Bottlenecks

- **18 Projects**
- Identify pipe or system with insufficient capacity



# Address System Hydraulic Bottlenecks

## City of Largo – Equalization Tank

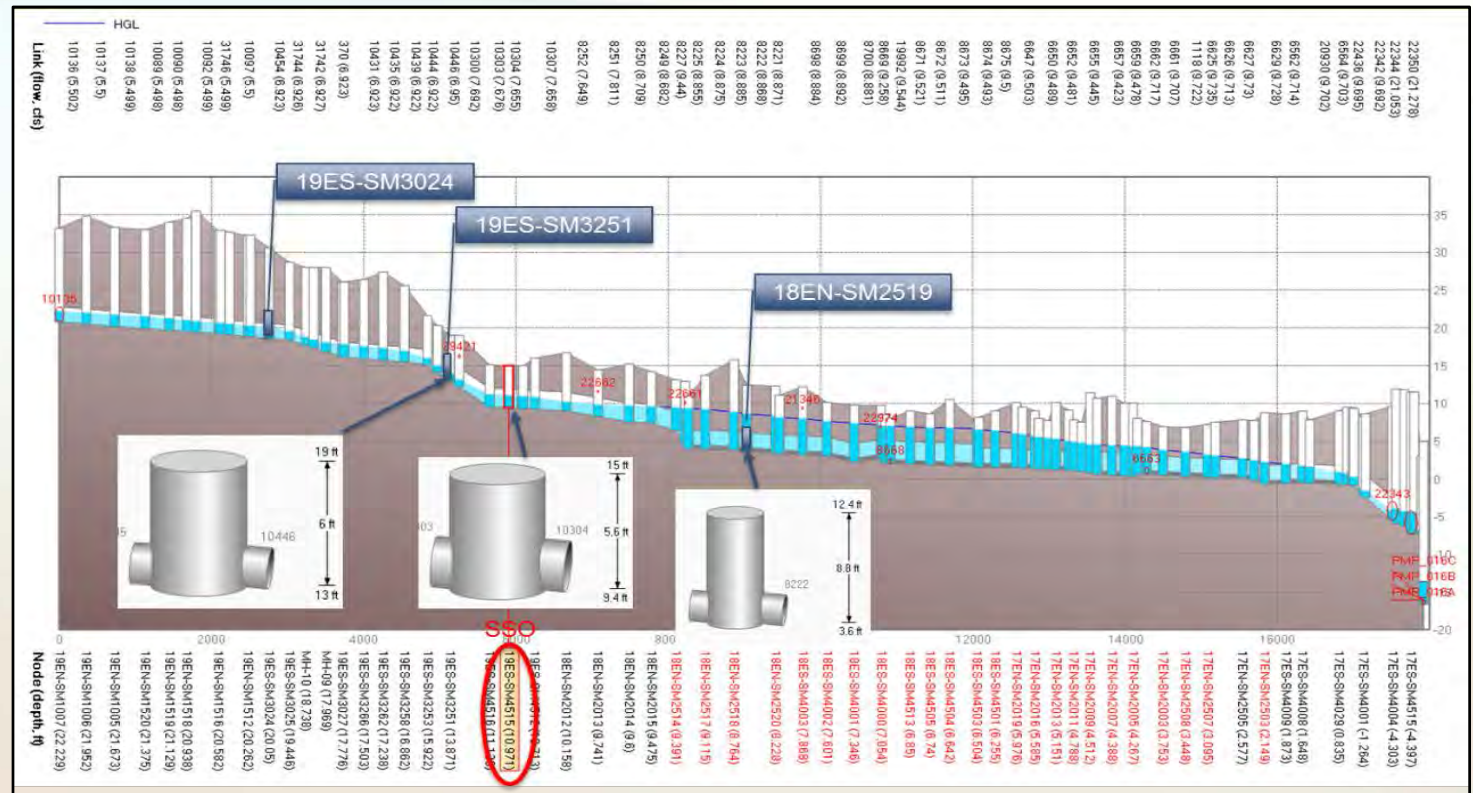
- 5 Million Gallon Tank Capacity
- Sized for Wet Weather Flow Attenuation
- Improve process



# Address System Hydraulic Bottlenecks

## Pinellas County – New Technology is being used to assess Sanitary Sewer Overflows

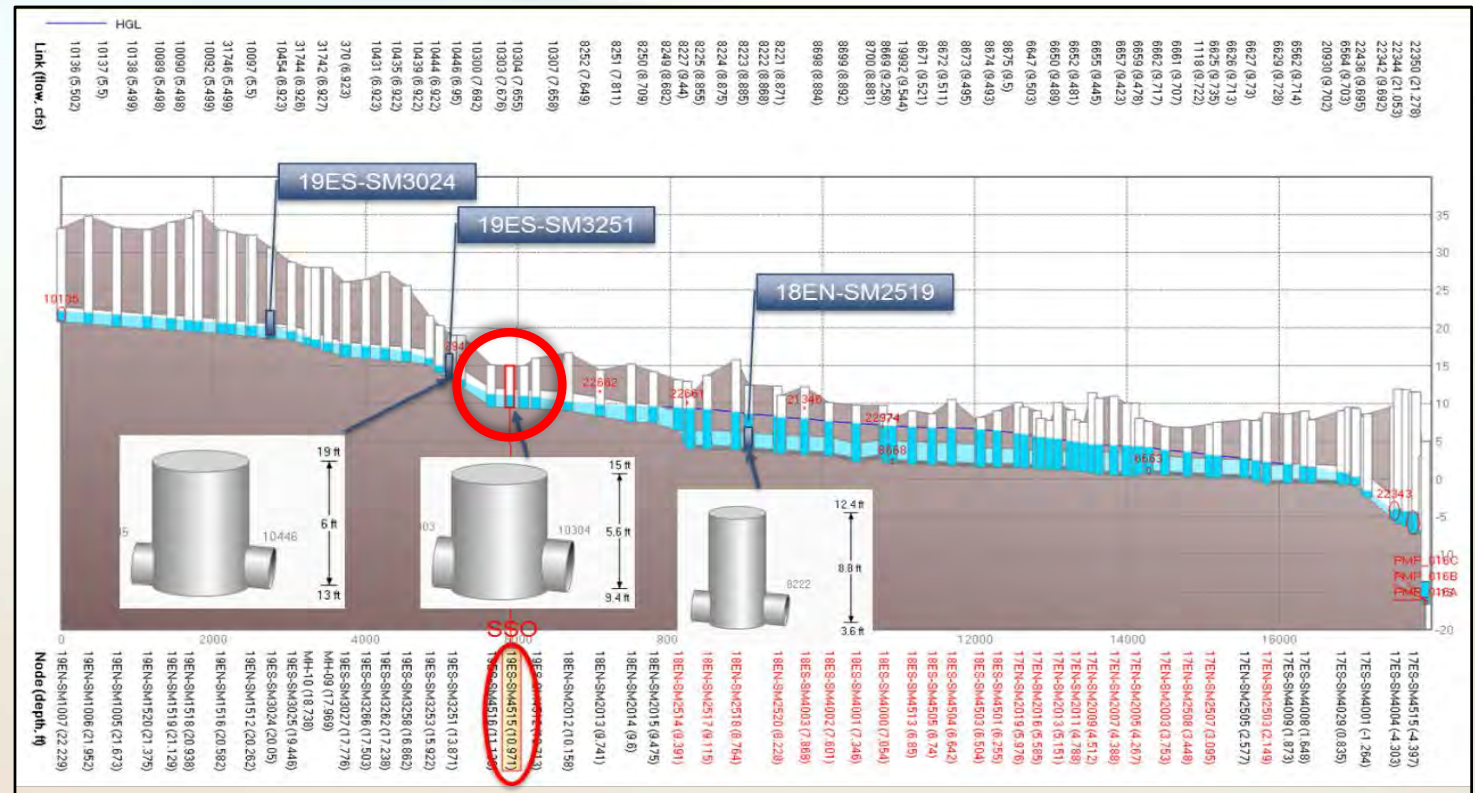
- ✓ Five Projects
  - ✓ Kenneth City
  - ✓ Seminole Blvd
  - ✓ Ridgewood 82<sup>nd</sup> Ave
  - ✓ Bellaire Bluffs Force Main
  - ✓ Florida Mobile Home Park



# Address System Hydraulic Bottlenecks

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# Address System Hydraulic Bottlenecks

## City of Clearwater – Corona Ave. Interceptor Sewer Project

- ✓ Evaluated system bottleneck
- ✓ Corrective Action in progress
- ✓ East WRF Interceptor

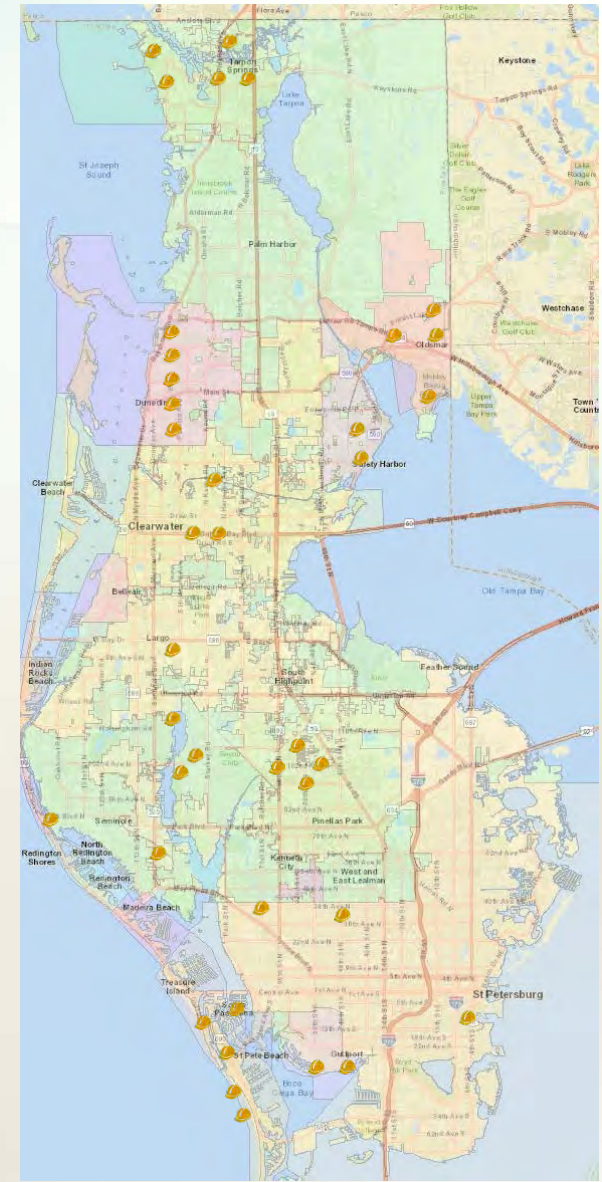






# Rehabilitation/Replacement Programs for Aging Infrastructure

- **31 Projects**
- Efforts Include
  - Cleaning and Inspections
  - Pipe and Manhole Lining
  - Pipe Replacement





# Rehabilitation/Replacement Programs for Aging Infrastructure

## City of Tarpon Springs - River Village Lift Station

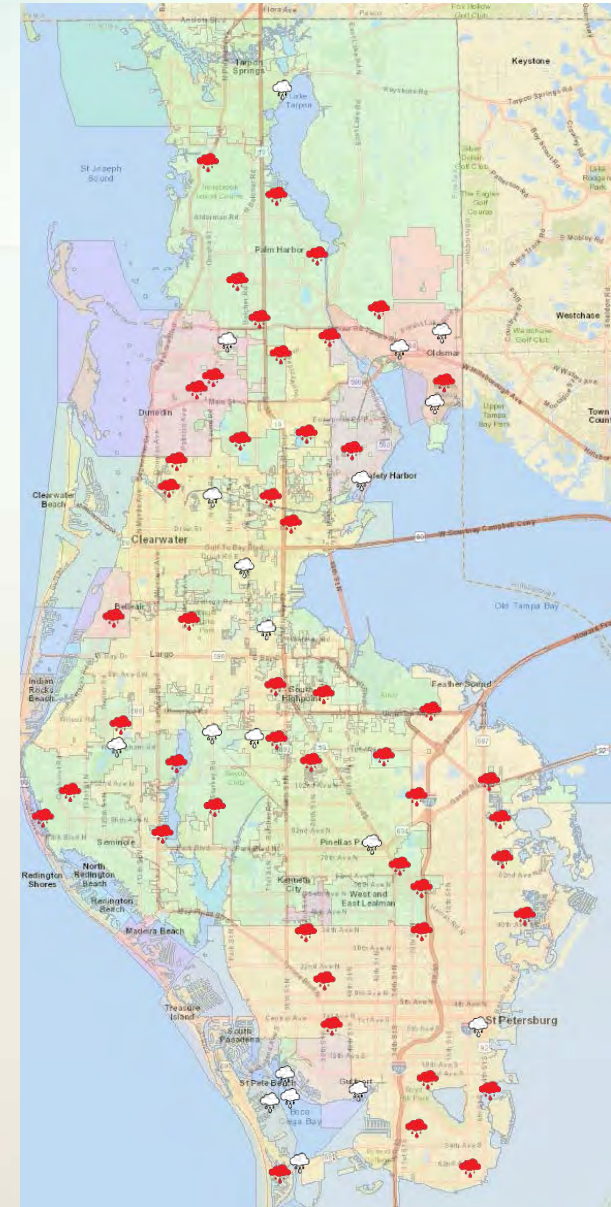
- ✓ Pipe and Manhole Replacement, Rehabilitation, and Repair





# Stormwater Drainage Improvements to Benefit Wastewater System

- **82 Improvement Projects**
- Efforts Include
  - Datasets merged – Stormwater & Wastewater
  - GIS analysis complete
  - Target areas identified
  - Conceptual projects being developed

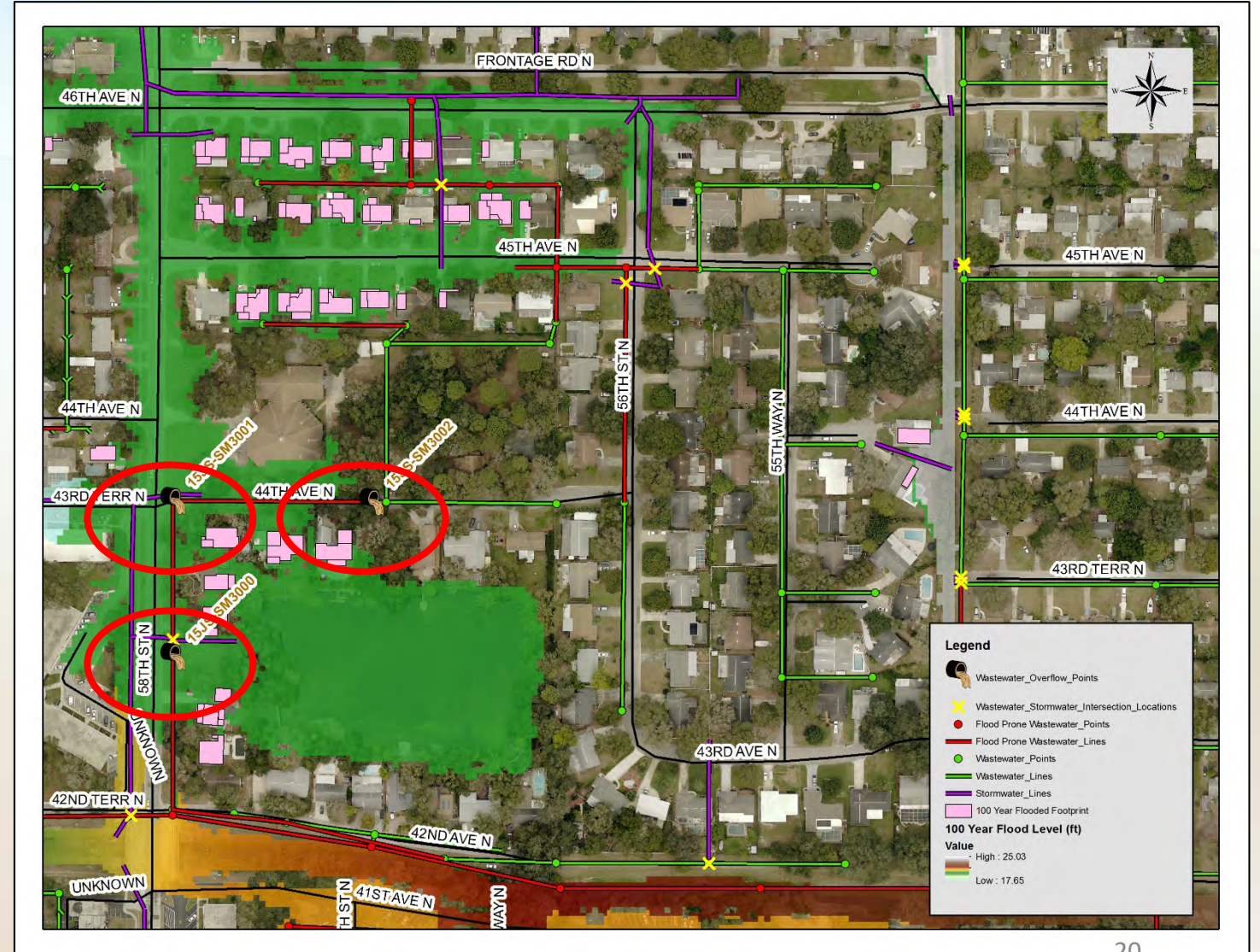




# Stormwater Drainage Improvements to Benefit Wastewater System

## Pinellas County

- WW system shows potential flooding
- Confirmed overflows
- Stormwater conveyance system improvements
- Sealing of WW manholes

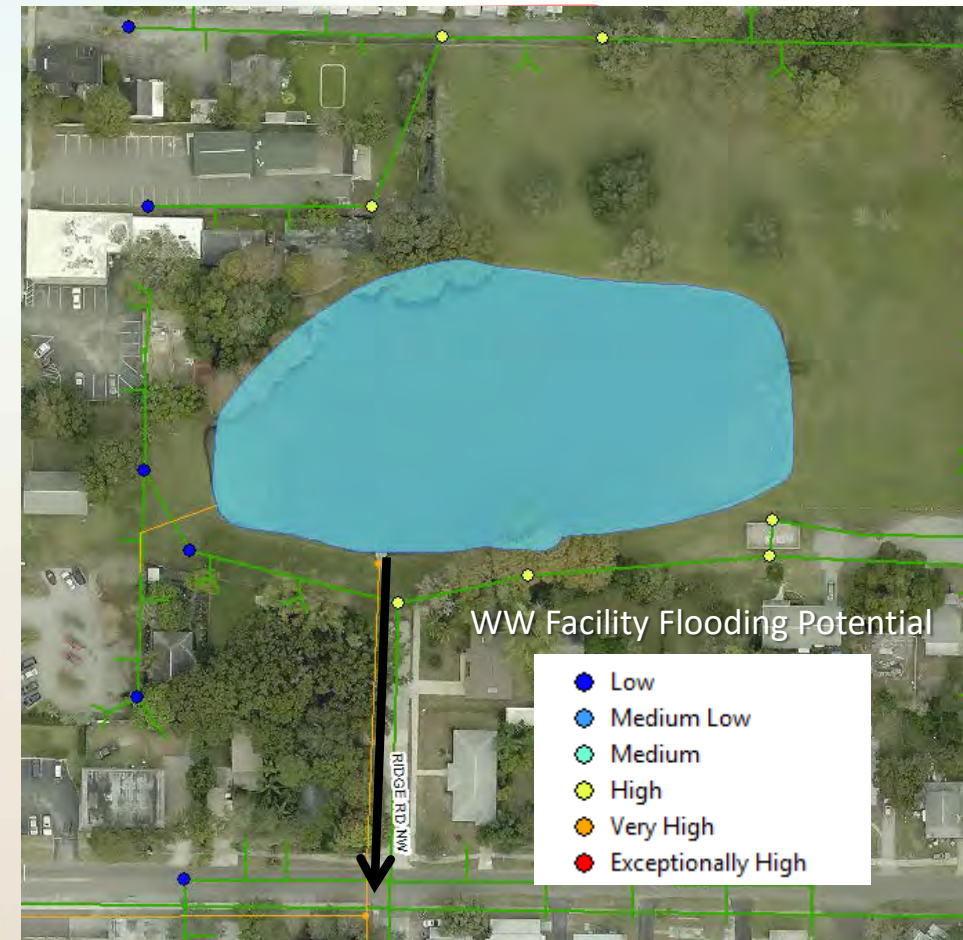




# Stormwater Drainage Improvements to Benefit Wastewater System

## Pinellas County – McKay Creek Watershed

- ✓ Flooded pipe, manholes and lift station
- ✓ Upsize pond to mitigate flooding and I&I
- ✓ Install Manhole rain covers





# Resource Sharing/Maximization

- Developing County-wide contract
  - Pipelining
  - Emergency pumper/tankers
  - Maintenance and Repair
- Flow Monitoring
  - ✓ BP Restore Fund for flow monitoring
    - ✓ Stormwater Improvements
    - ✓ Flow Monitoring





# Public Dialogue

- Individual campaigns come together for larger events like Eco Fun Festival
- Routine meetings
- Coordinating best practices





# Public Dialogue

## Tampa Bay Estuary Program Regional Social Marketing Campaign for SSOs

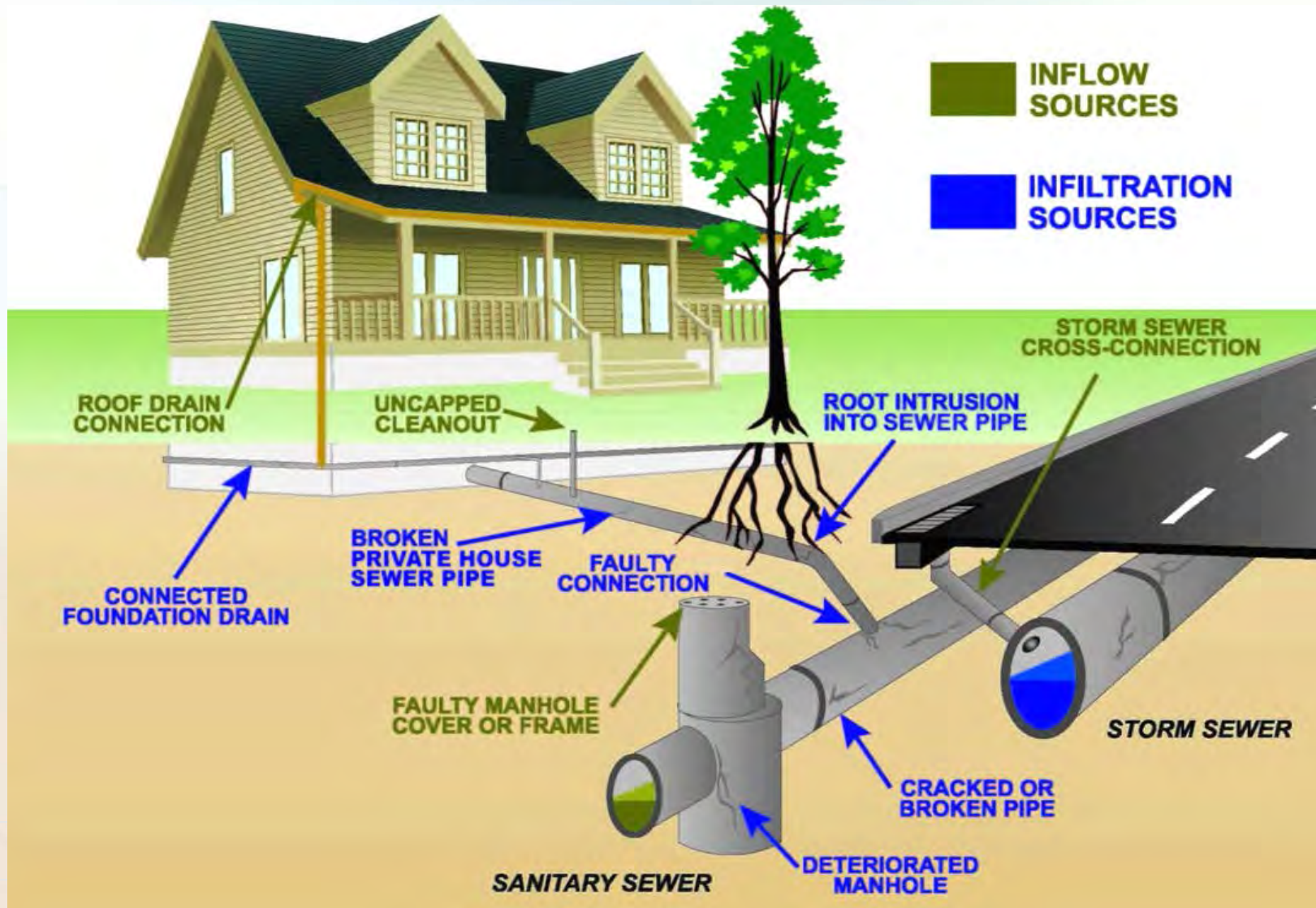
- ✓ 5 year campaign
- ✓ Goal: Help prevent wastewater overflows
- ✓ Private home sewer pipe  
– Maintenance and Repair







# Legislation, Regulations, Local Ordinances



# Action Plan

## PINELLAS COUNTY TASK FORCE



I&I  
Studies



System  
Hydraulic  
Bottlenecks



R/R



Stormwater  
Drainage  
Improvement



Public  
Dialogue



Legislation



Resource Sharing/  
Maximization





**LEADERSHIP**



**Q & A**



**ACTION**



**COLLABORATION**



# See You Again Soon



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# Bullpen

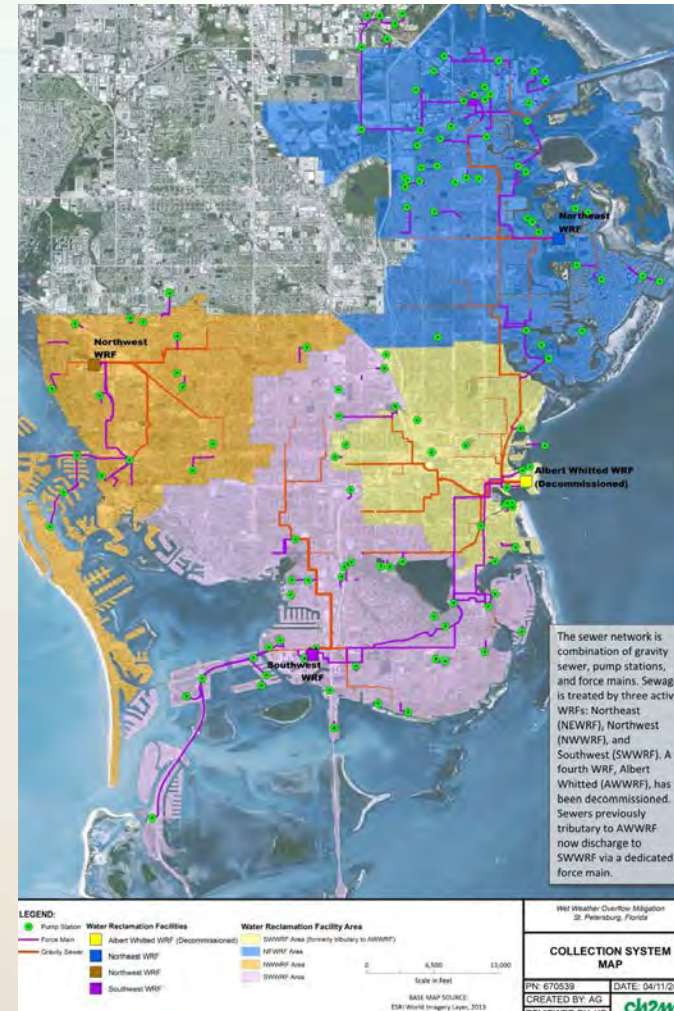




# Inflow and Infiltration Initiatives

## City of St. Petersburg – Wet Weather Overflow Mitigation Program

- ✓ Two Phase Program, Phase I Complete
- ✓ Used existing available data to develop recommendations and budget costs
  - ✓ Mitigate I & I
  - ✓ Provide wastewater collection system relief
  - ✓ Upgrade treatment and disposal capacity
- ✓ Study showed that improvements to the Water Reclamation Facility was the most cost effective solution



# Inflow and Infiltration Studies

- ✓ Installed 163 flow monitors to measure inflow and infiltration
  - ✓ 80 St. Petersburg
  - ✓ 68 Pinellas County
  - ✓ 19 Gulfport
  - ✓ 12 Clearwater
  - ✓ 3 Treasure Island
  - ✓ 2 City of South Pasadena
- ✓ Ongoing Smoke Testing
  - ✓ Largo
  - ✓ Pinellas Park







# Legislation, Regulations, Local Ordinances

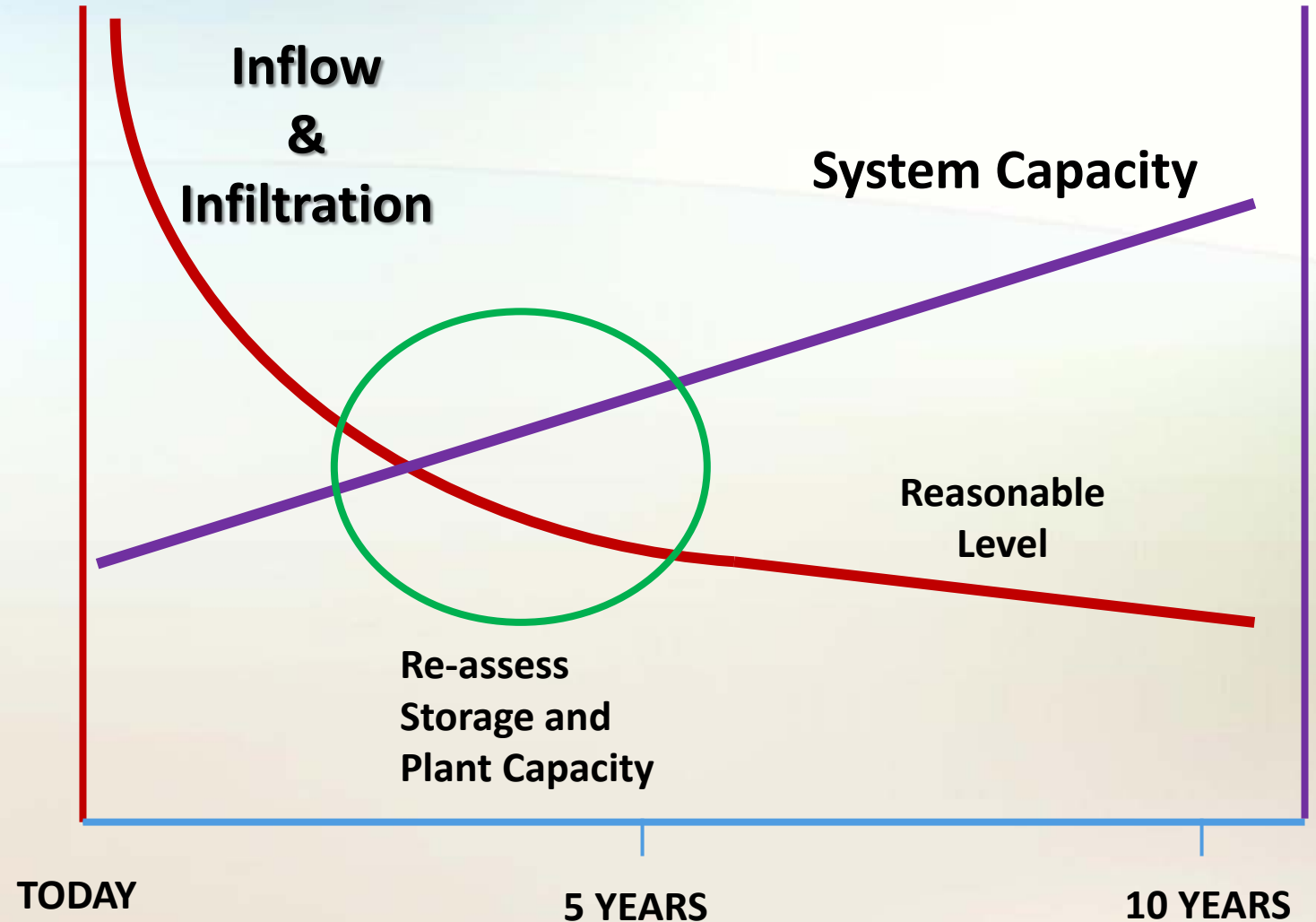
## Pinellas Park Ordinance Section 12-109

- Sec. 12-109 – Maintenance of structures, infrastructures, and improvements
  - (C) All infrastructure and improvements, public or private, shall be maintained, kept structurally sound and bear no evidence of excessive deterioration or of obstruction; including but not limited to: water lines, sanitary sewer lines, stormwater drainage, retention ponds, detention ponds, ditches, swales, driveways, driveway aprons, roads, alleys or other legal access. It shall be presumed that a public nuisance exists when one (1) or more of the aforesaid conditions exist.



# Long-Term Actions

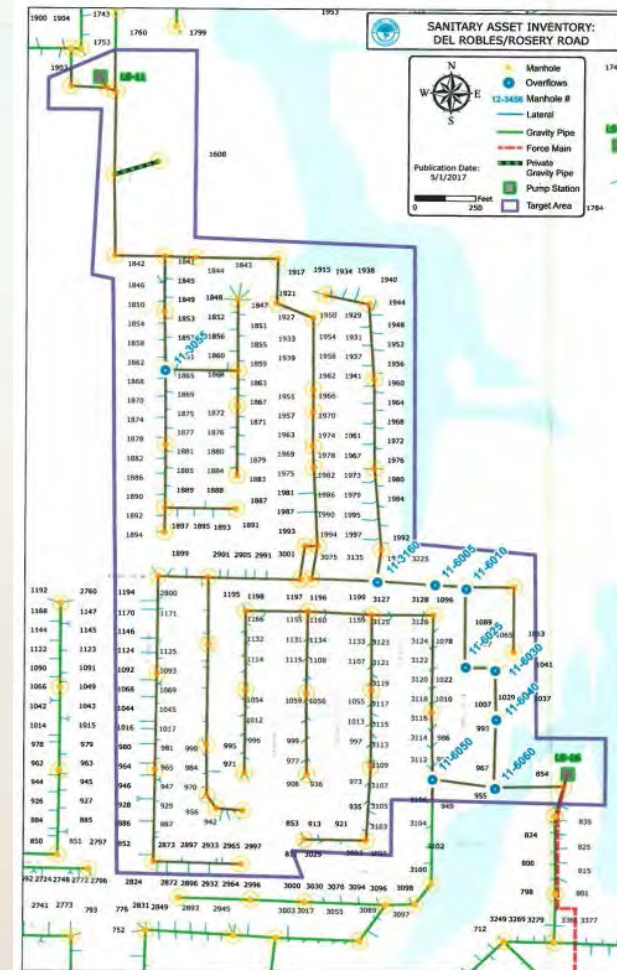
- Next Steps
  - January 2019: Post-storm season assessment
  - Ongoing assessment of inflow and infiltration reduction vs. system capacity



# Address System Hydraulic Bottlenecks

## City of Largo – Hurricane Hermine Engineering Evaluation

- ✓ Analysis/Design 2017, Construction 2018
  - ✓ Wilcox Road/ Indian Rocks Road Area
  - ✓ Pinecrest Brookdale
- ✓ Analysis/ Design 2017-2018, Construction 2019
  - ✓ Crescent Drive
  - ✓ Saint Paul's Drive
  - ✓ Private Lift Station #38 – Seminole Blvd.

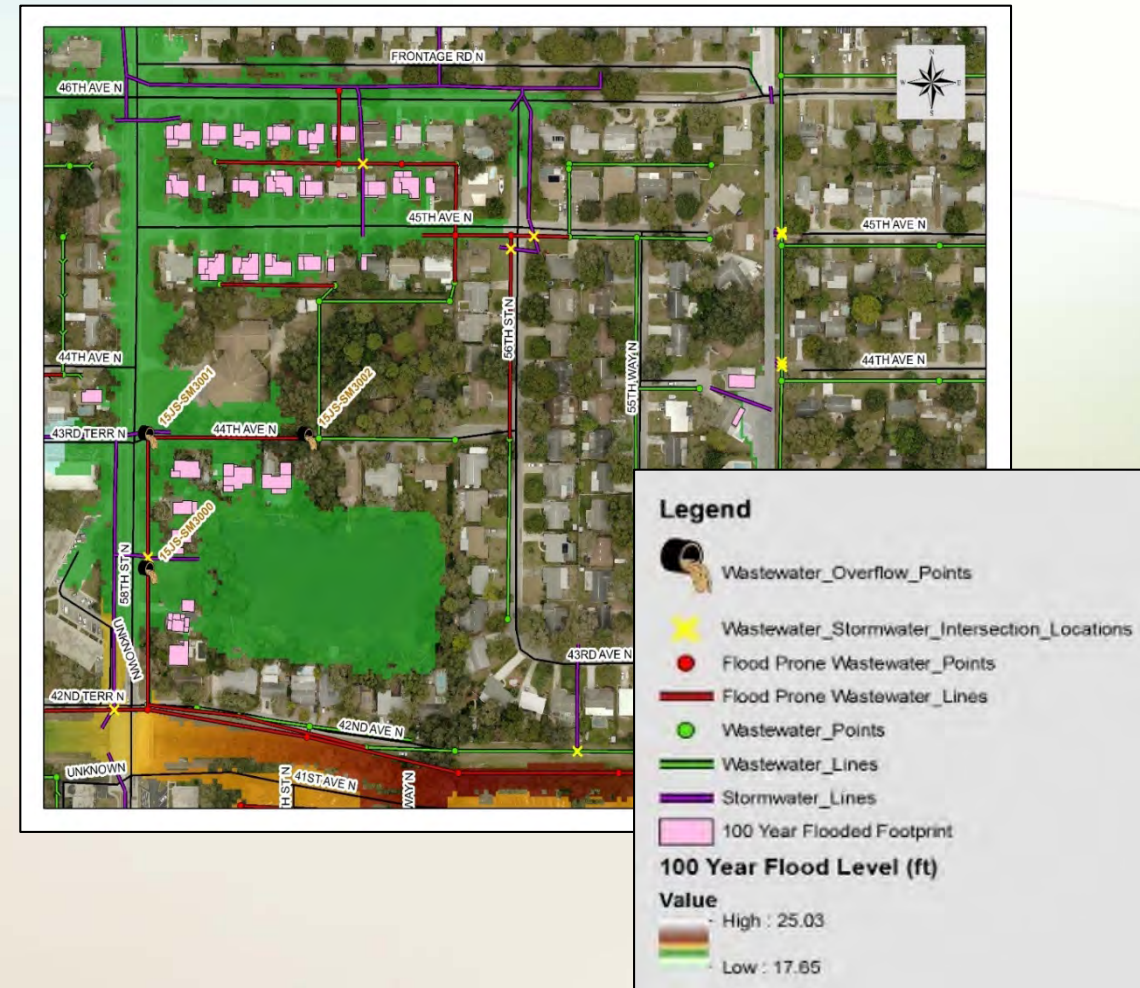




# Stormwater Drainage Improvements to Benefit Wastewater System

## Pinellas County

- ✓ Stormwater Best Management Practices
- ✓ Identify flood-prone areas for analysis
- ✓ Identify intersection of wastewater and stormwater lines



# Pinellas County Municipal Boundaries (24)

## Legend

### Municipal Boundary

- Belleair
- Belleair Beach
- Belleair Bluffs
- Belleair Shore
- Clearwater
- Dunedin
- Gulfport
- Indian Rocks Beach
- Indian Shores
- Kenneth City
- Largo
- Madeira Beach
- N Redington Beach
- Oldsmar
- Pinellas Park
- Redington Beach
- Redington Shores
- Safety Harbor
- Seminole
- South Pasadena
- St Pete Beach
- St Petersburg
- Tarpon Springs
- Treasure Island
- Pinellas County

