

# CITY OF KISSIMMEE

Overview of the Historic Impacts of Hurricane Ian



# Hurricane Ian Impacts

## Inches of rain:

- Kissimmee and Osceola County experienced significant rainfall during Hurricane Ian, reaching around 18 inches.
- 500-year flood.

## Duration of rain:

- The impact on Kissimmee lasted about two days, from September 28 to September 29, 2022.

**One of the most catastrophic flooding events  
in the history of the City of Kissimmee.**

# Facts About Areas Impacted

## Number of buildings/residences flooded:

- 1,700 structures were impacted by flooding in the City of Kissimmee.
- Majority of impacted structures were residential units.

## Note: Osceola County Damage Assessment

- Current estimated structural flood damage, according to the Osceola County Office of Emergency Management

## Critical Facilities Impacts:

- HCA Florida Osceola Hospital, formerly Osceola Regional Medical Center, located on Oak Street near downtown Kissimmee
- AdventHealth Kissimmee, hospital located north of downtown Kissimmee
- Kissimmee Gateway Airport Administration Building and the MLK area





HCA Florida Osceola  
Hospital





Photo: Kissimmee Gateway  
Airport and MLK area



# Visuals of Flooding Impact:

- N Kissimmee/N. Main St.
- GIS Map of Flooded Areas (500-yr Flood Zones)
- The Oaks Street Flooding
- Post-Flash Flood Issue: Rise of Lake Toho



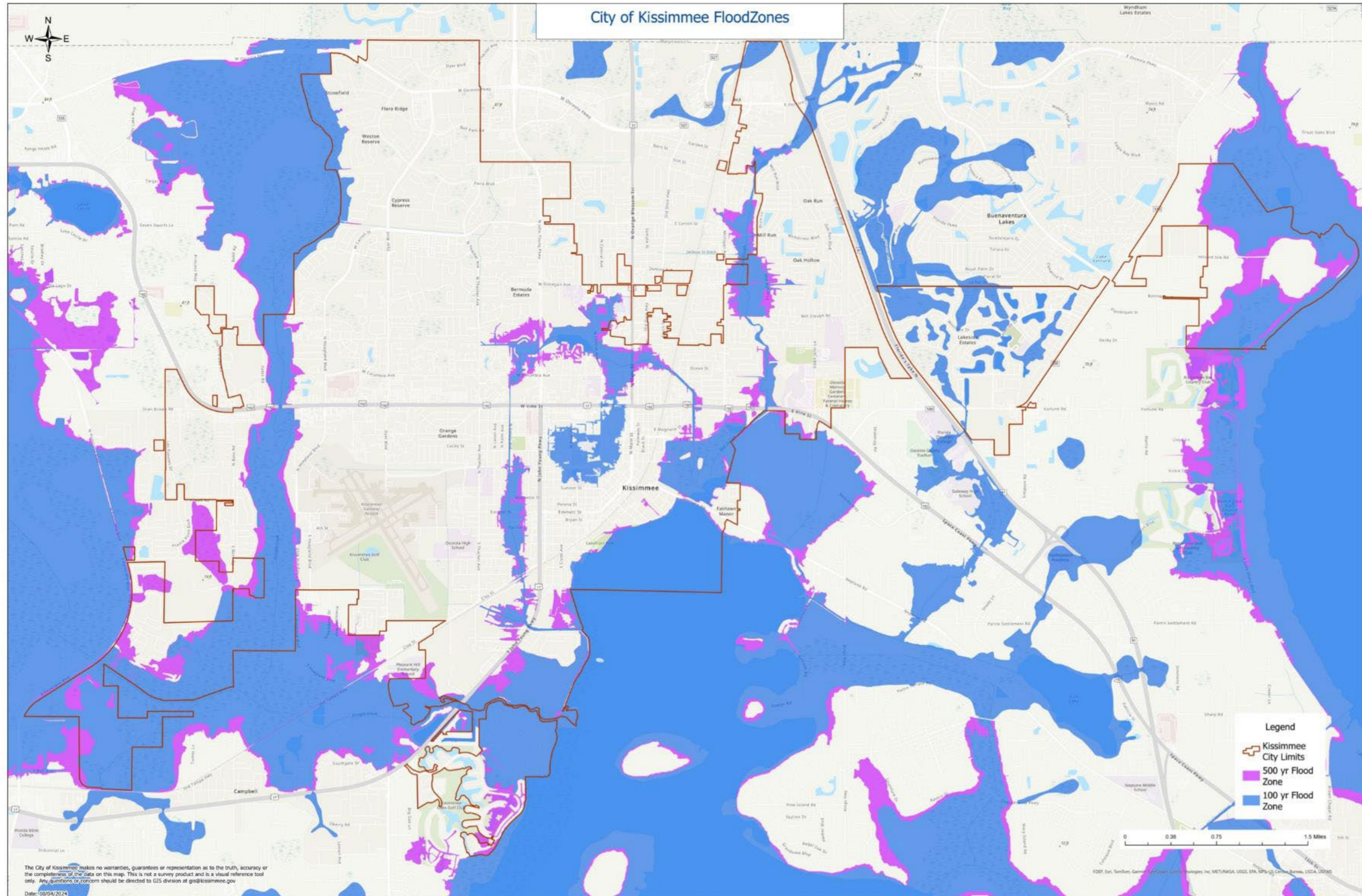




**Photo: N. Kissimmee/N. Main St.**



# GIS Map of Flooded Areas (500-yr flood zones)







**Photo: The Oaks St. Flooding**





# Post-Flash Flood Issue: Rise of Lake Toho





# After-Action Update

## Cause of the flooding:

- Excessive rainfall
- Flooding from Nearby Lakes and Rivers
- Flood-Prone Areas

## Identification of issues needing improvement:

- Stormwater Management and Drainage Systems
- Flood-Prone Areas
- State and Federal Funding

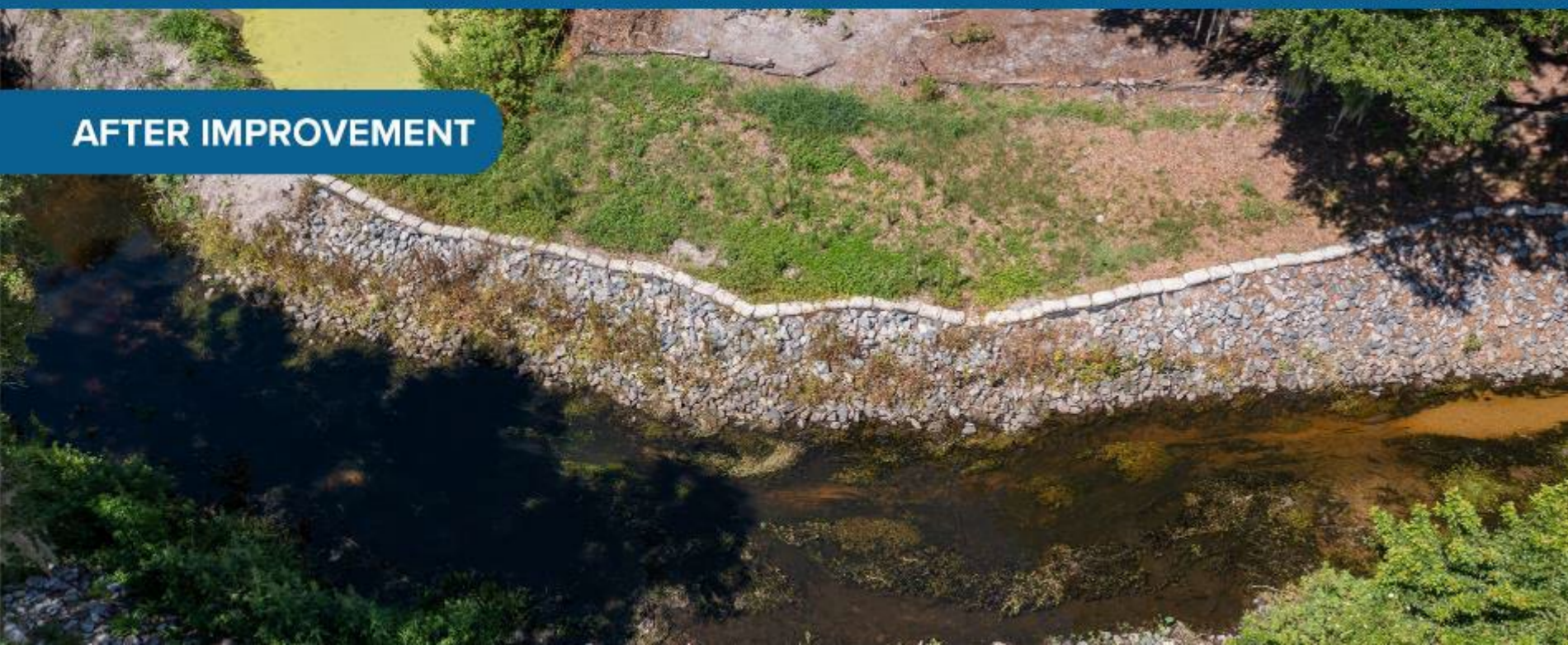
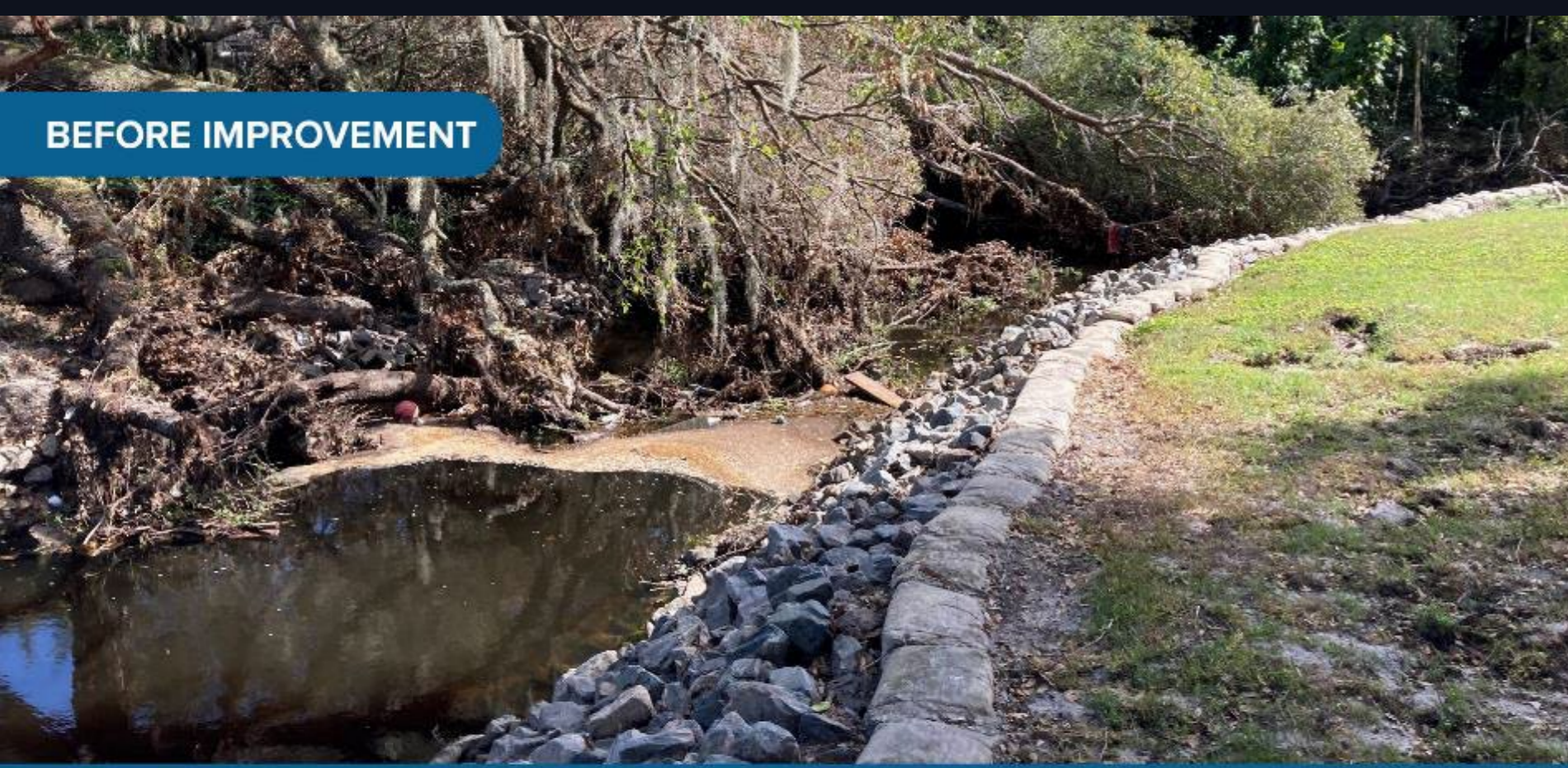
## Need for additional response equipment:

- Pumps
- Boats
- High-water vehicle





# Projects we are undertaking to address issues:



- Master Stormwater Basin Study –This project aims to identify areas within the City prone to flooding. The results will lead to projects and funding opportunities for the City.
- Mill Run Pond Project – The study has been completed. The next phase will be designed.
- Mill Slough - Completed the debris removal project at a portion of the slough. This improvement helped restore the waterway's natural capacity for the storm season.
- Lyndell Street Drainage Improvements: Construction will focus on enhancing the existing drainage system.
- Bermuda Estates Drainage Enhancements: This project will address flood-prone areas by upgrading the stormwater system, including new pipes and strategically placed drains.
- Woodside Drainage Improvements: The project will focus on repairing the existing drainage system. It will clear, excavate, and stabilize existing infrastructure while installing new inlets, drainage pipes, and repaving sidewalks, which will increase the stormwater system's drainage capacity.



# Mitigation Measures Planned



## Mitigation Measures Planned:

- **Tigerdams for Hospitals**  
Deploying temporary flood barriers to protect critical healthcare facilities.
- **Strategic Placement of Pumps**  
Installing pumps in key areas to manage and redirect excess water during flood events.
- **State Funding for N. Lake Toho Cleanup**  
Allocating state resources for environmental restoration and maintenance of North Lake Tohopekaliga.
- **Federal Funding for ACOE Study**  
Securing federal support for the Army Corps of Engineers to conduct a comprehensive study of the Lake Toho system.





# Thanks!



@CityofKissimmee