

Immokalee CRA  
Stormwater Master Plan Implementation  
2008-present

**BIG CYPRESS BASIN BOARD MEETING  
OCTOBER 20, 2015**





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(ISWMP)

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## 7 Acre Downtown Retention Pond



Completed - 2012

## ISWMP Background

The Immokalee Basin is currently drained by a series of culvert structures and connective channel segments with no control structures. As is, this system is antiquated and does not facilitate efficient stormwater management.

Collier County has envisioned the need for establishing stormwater management guidelines and regulations for basins county wide. The immediate consequence of the Collier County GMP amendment dated 12/6/03 was the commissioning of a detailed basin study for Immokalee within a 5 year time frame beginning in FY 2000/2001.

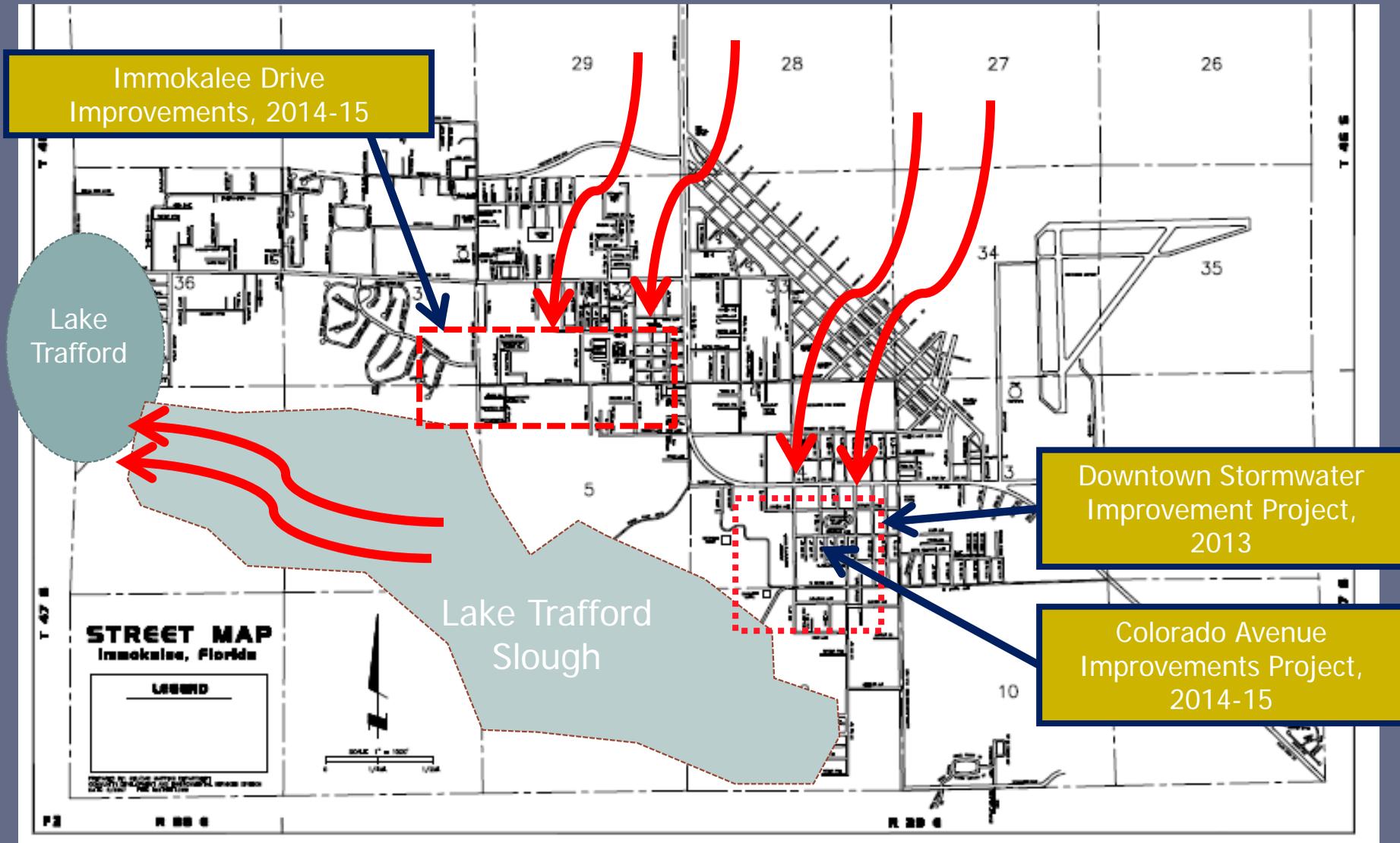
This study was undertaken by SFWMD-BCB in 2005.

Testing crews took samples in Immokalee after a small storm event between 8/28 and 8/30/04. Crews measured Event Mean Concentration (EMC) levels of Total Suspended Solids (TSS), Total Nitrogen (TN), Ortho-Phosphate (OPO<sub>4</sub>), Ammonia (NH<sub>3</sub>) and E.coli at four key flow-points: Fish Creek, Madison Avenue, Main Street and the Lake Trafford Slough. The Slough samples appeared to show higher concentrations than the other sites, which was expected considering that a good portion of the contributing urban and rural basins have little or no best management practices (BMPs) in place. Structural and non-structural BMPs were recommended in all areas due to poor water runoff.

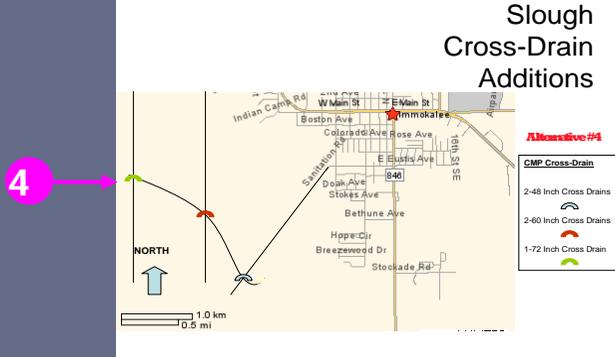
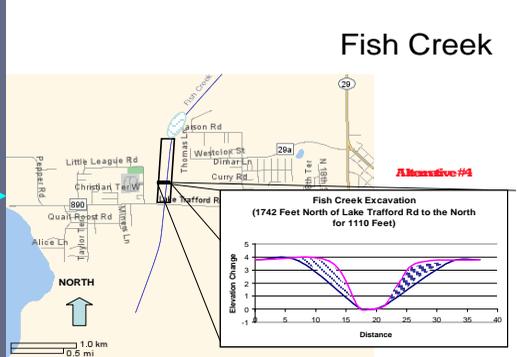
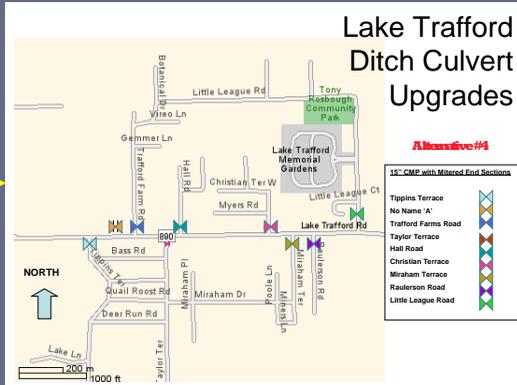
## ISWMP Historical Timeline

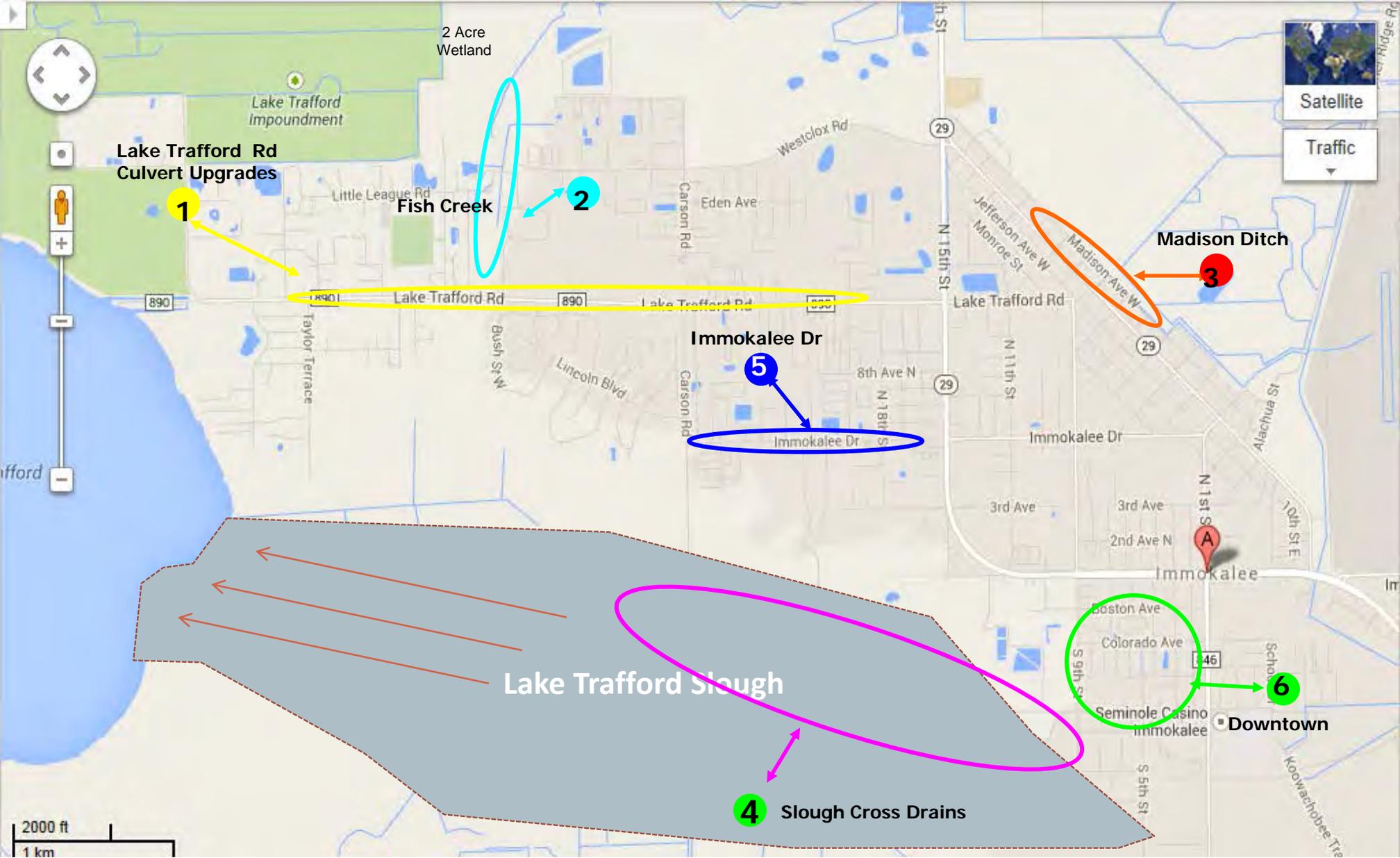
- 2004: Due to historical concerns regarding stormwater **contaminants** and **flooding**, the BCB performed a comprehensive water quality and quantity study of Immokalee.
- 2008: The Immokalee CRA (BCC) adopted the BCB study as The Immokalee Stormwater Master Plan and used it as an indicator to apply for a \$3.5 million Federal Disaster Recovery Initiative (DRI) grant.
- 2009: The CRA joins forces with Collier County to design the first of six projects within that overarching Stormwater Master Plan and put the project out for bid using the DRI grant.
- 2011: The SFWMD completed its Lake Trafford dredging project.
- 2012: The CRA entered into a contract with DN Higgins to begin construction of the Downtown Immokalee Stormwater Improvements Project which directly affects the Lake Trafford headwaters.
- 2013: The CRA is awarded \$2.8 million Federal grant to construct the second ISWMP project.
- 2013: The CRA joins forces with BCB to design the Immokalee Drive Drainage Improvement Project.
- 2013: The CRA & MSTU Design the Colorado Avenue Drainage and Sidewalk Improvement Project.
- 2013: The CRA is awarded a \$512k grant to construct Colorado Avenue improvements.
- 2015: The CRA constructs Immokalee Drive and Colorado Avenue improvements.

# The Big Picture: Immokalee Regional Hydrology



# The Six Projects within the ISWMP





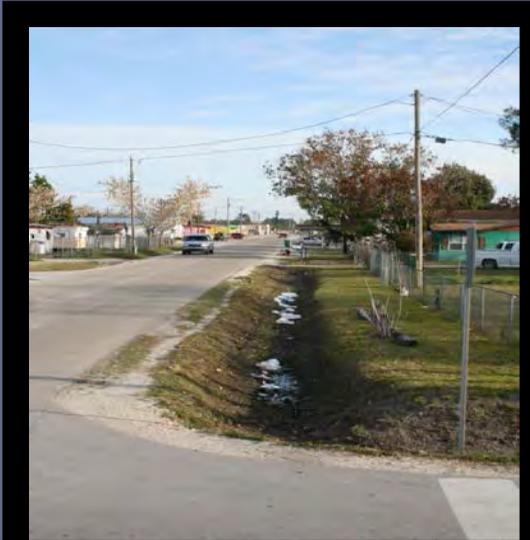
# Immokalee Storm Water Master Plan

# Recommended Alternative



In Association with

## Local Need: Clogged Drainage Ditches...



## ...Creating Flood Conditions

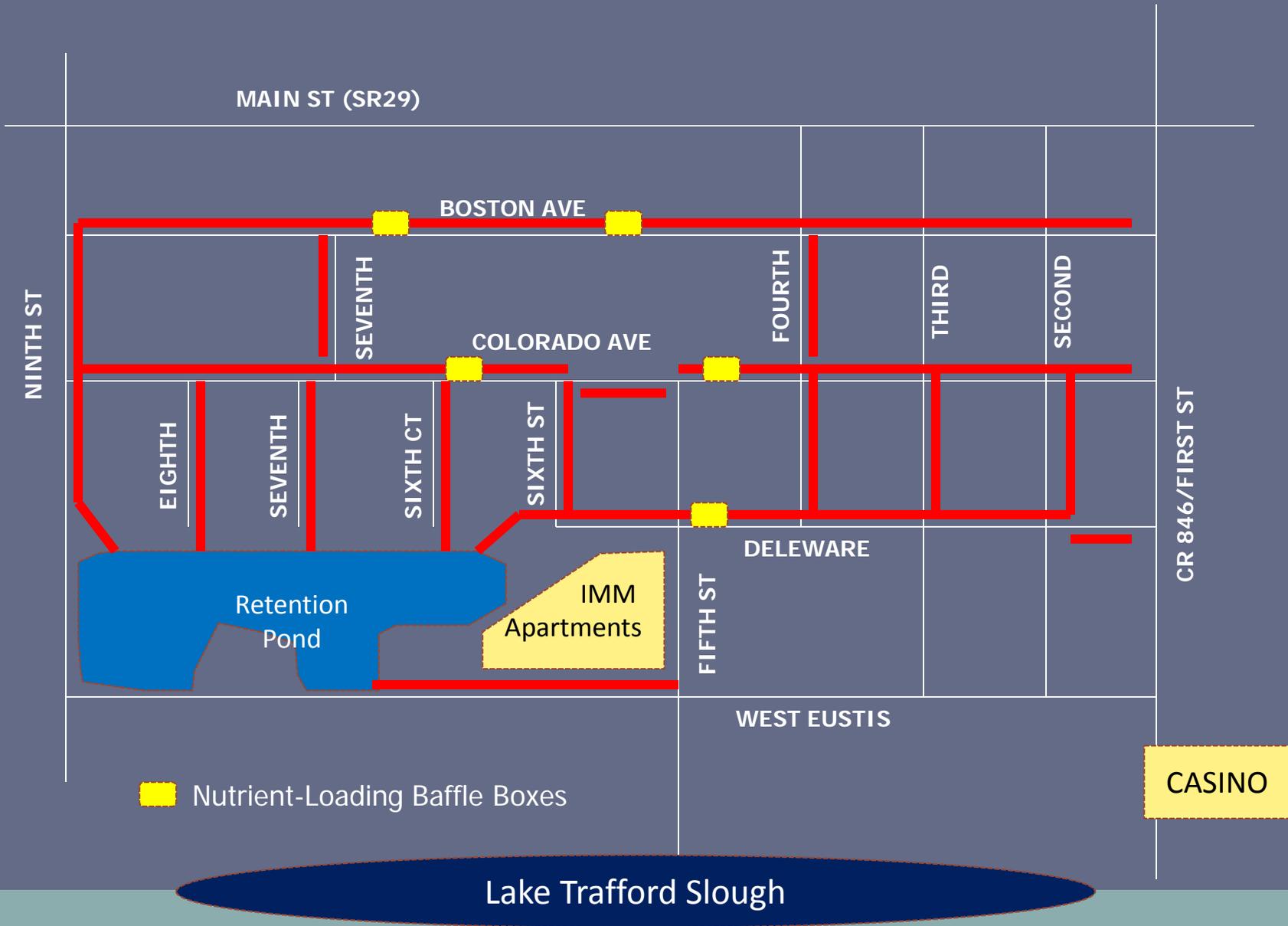


## Downstream: Lake Trafford Slough outfall on South Fifth Street

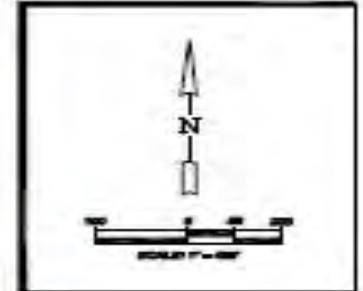
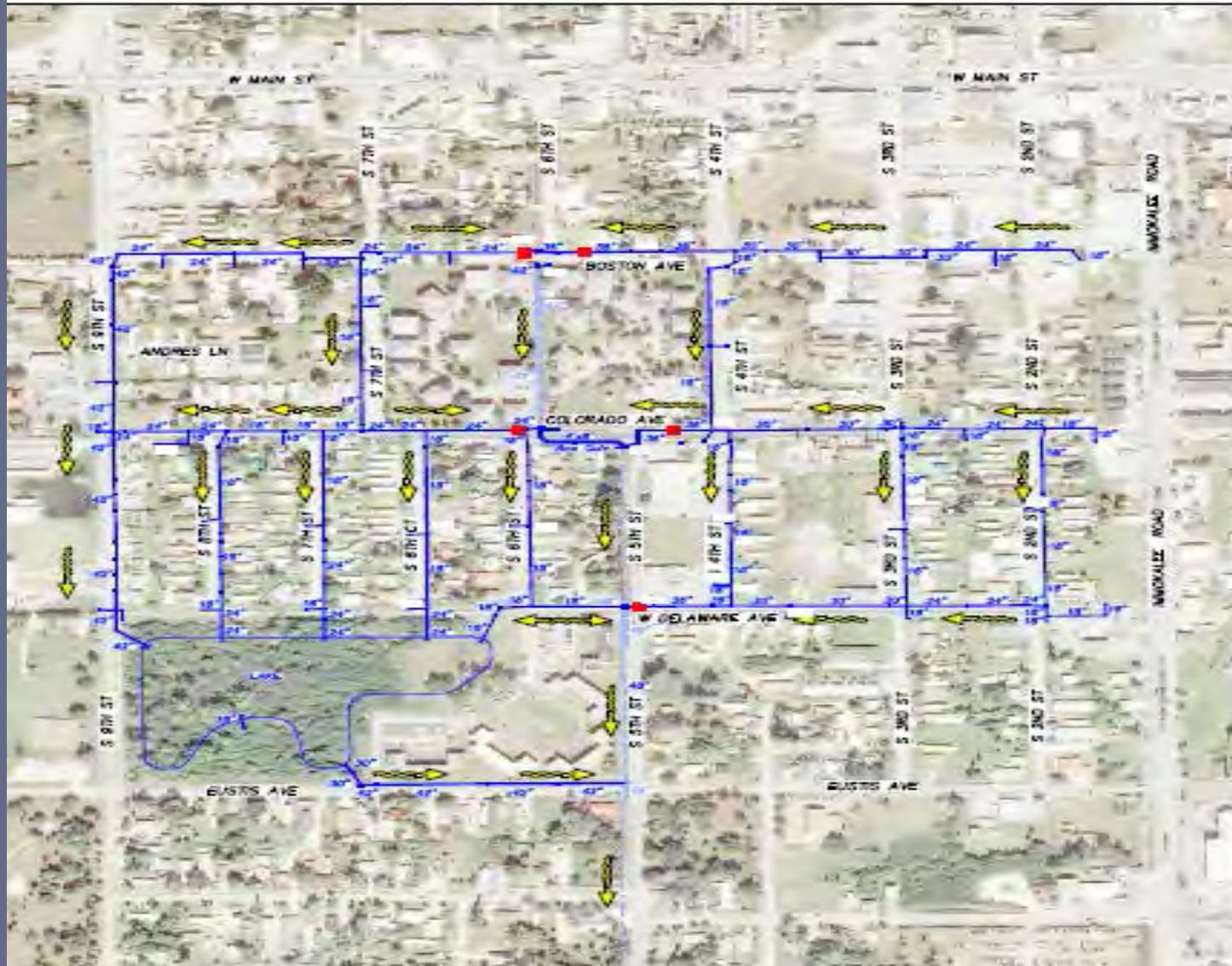


Waterfowl sharing the slough with  
garbage and contaminants

# Downtown Project – Completed 2012



# Downtown Immokalee Drainage Improvements



- NOTES:
1. ALL TOPOGRAPHIC DATA SHOWN REFERS TO MAMD 1988 DATUM.
  2. AERIAL PROVIDED BY COLLIER COUNTY DATE: 3-2009

- LEGEND:
- 24" PROPOSED DRAINAGE PIPE
  - 18" EXISTING DRAINAGE PIPE
  - EXISTING SEWER
  - DIRECTION OF DRAINAGE FLOW
  - PROPOSED SAMPLE BOX

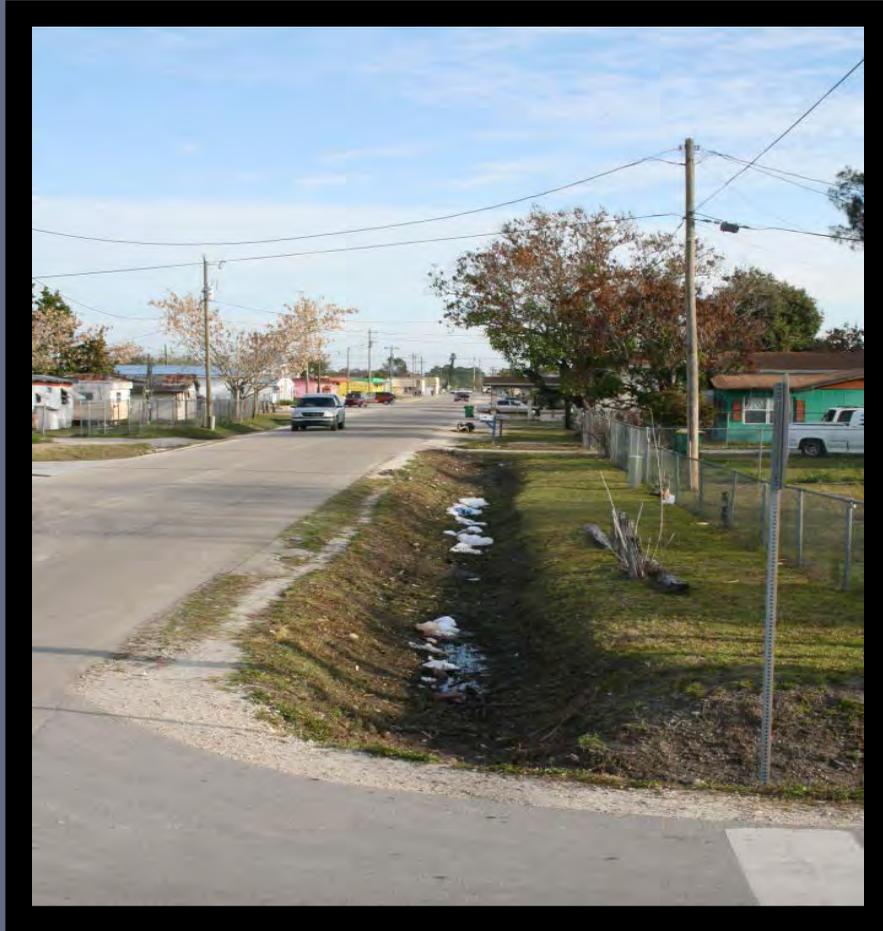
Before



After



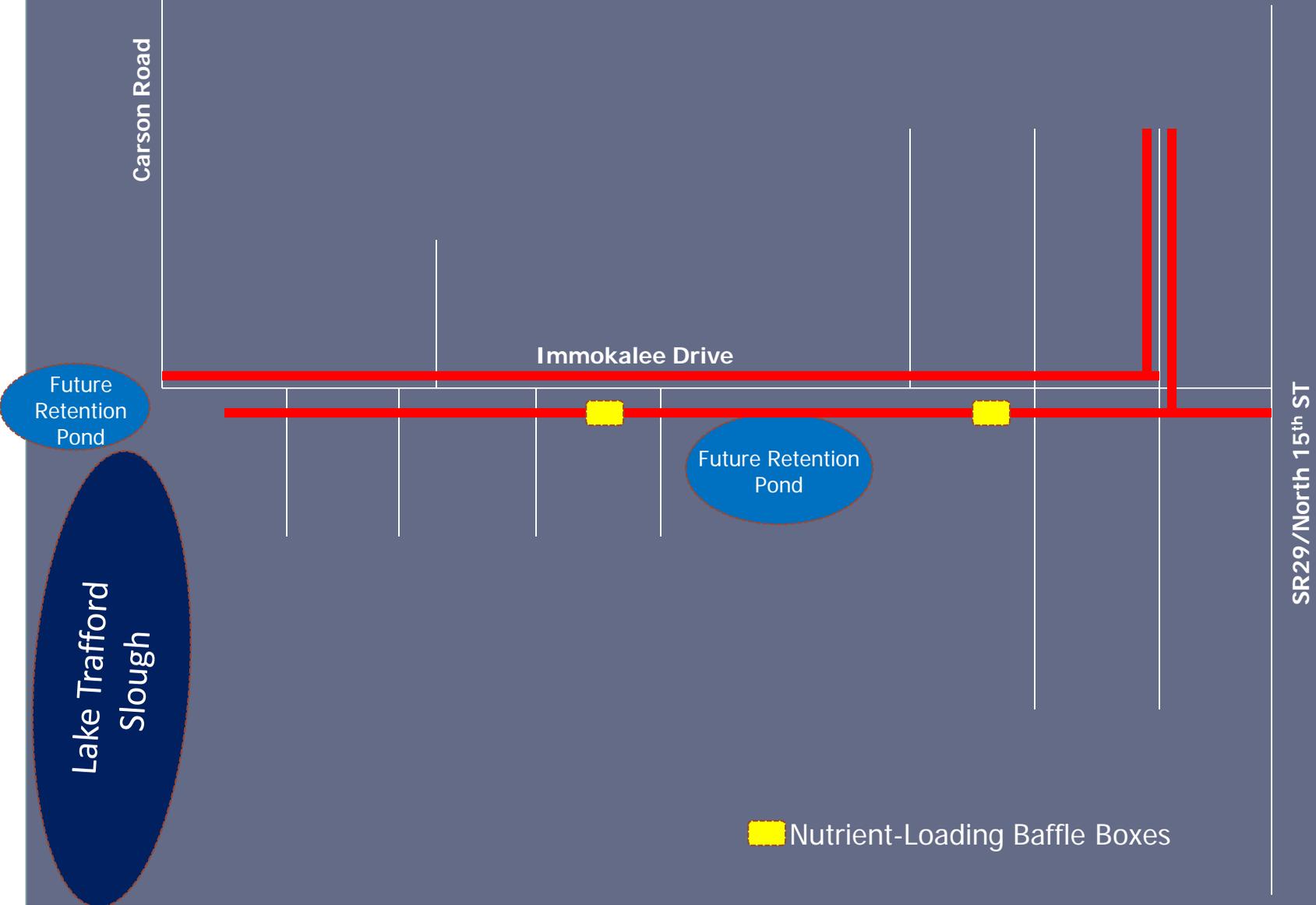
Before



After



# Immokalee Drive Project – April 2015 Construction Start



# Master Plan

## Project Funding Sources



Project	Design	Construction	CEI	Project Management
\$4mil Downtown Imm	CRA/County	DEO DRI Grant	CRA	CRA
\$3.8mil Immokalee Dr	DEO/BCB	DEO DREF Grant	DEO DREF Grant	CRA
\$512k Colorado Ave	MSTU	DEO DRI Grant	DEO DRI Grant	CRA
Update Plan - 2015	CRA	N/A	N/A	N/A
Lake Trafford Road	TBD			
Immokalee Dr Phase II	TBD			
Slough Cross Drains	TBD			
Fish Creek	TBD			

# Future Efforts



- Revisit the ISWMP to include other problem areas and rank all remaining projects based on greatest environmental impact and potential funding availability
- Work with BCB's Lake Trafford Team to design future projects
- Apply for grant funding to design and construct:
  - Lake Trafford Road Improvements
  - Weeks Terrace
- Make strategic land purchases in preparation for future construction of:
  - Immokalee Drive Phase II
  - Slough Cross Drains
  - Lake Trafford Road Retention Ponds(s)



# QUESTIONS?

