

Palm Beach County
Water Resources Task Force



MS4 Update

Impaired Water for Lake Worth Lagoon –
Palm Beach Coast Basin

April 20, 2017

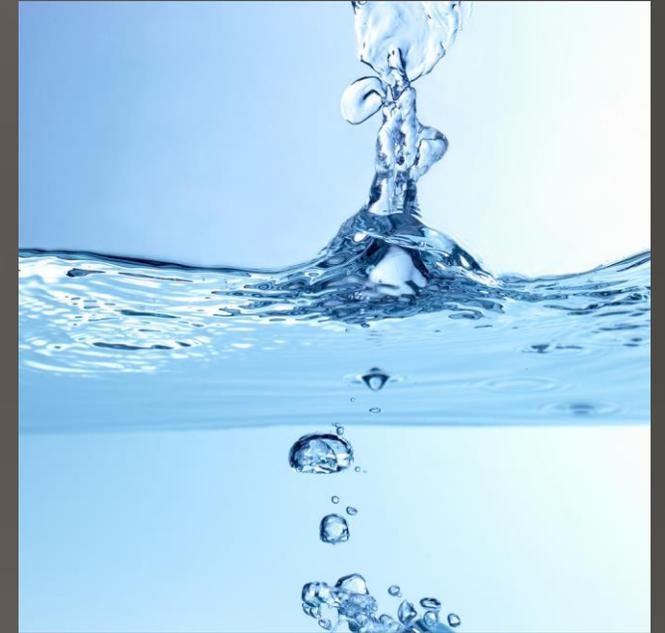
Alan Wertepny
MS4 NPDES Coordinator

The Clean Water Act Regulates the Discharge of Pollutants into the Waters of the U.S.

The Act requires Florida to :

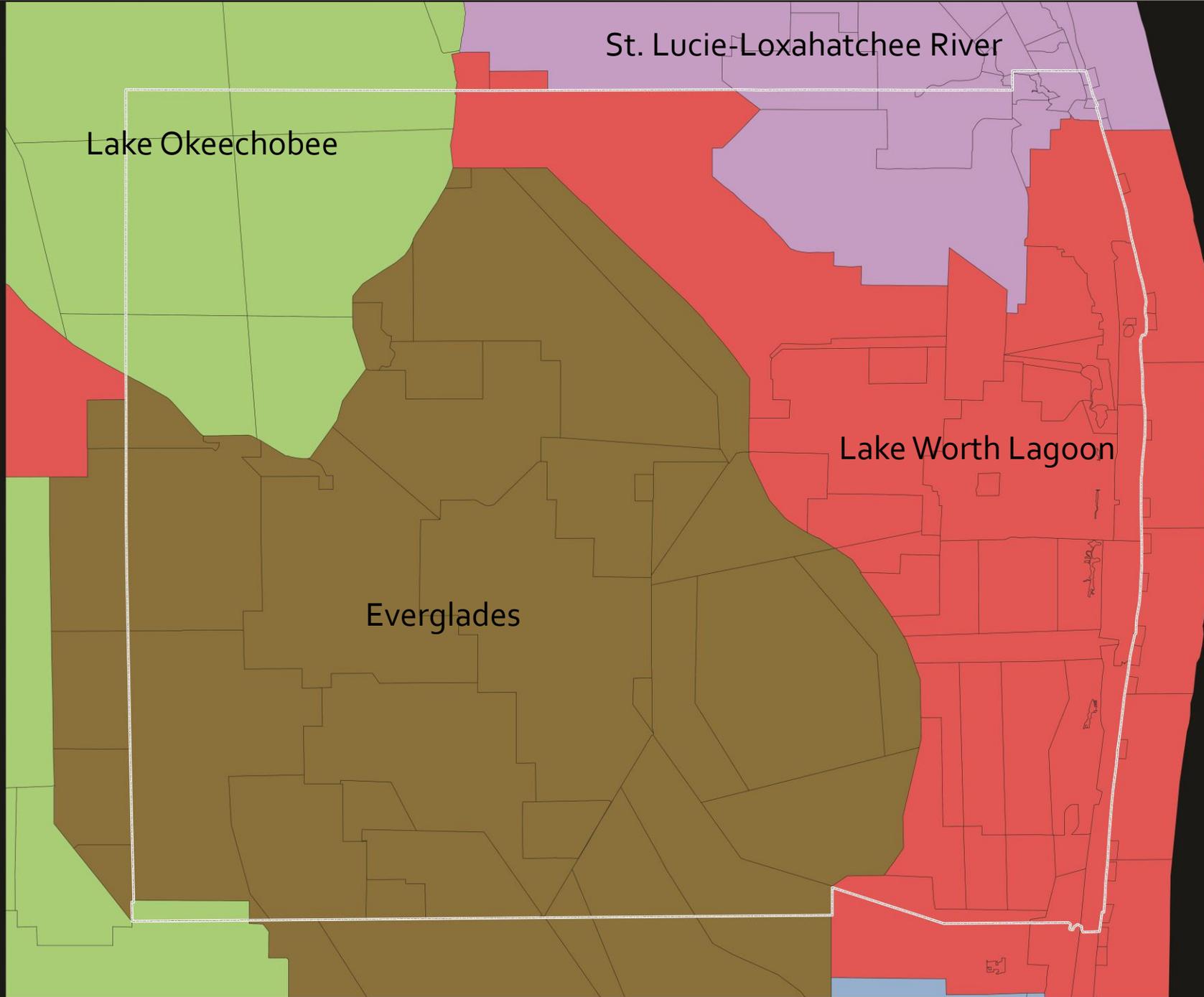
- Submit to EPA a list of surface waters that do not meet state water quality standards
- Establish and implement pollutant load reduction goals referred to as TMDLs (Total Maximum Daily Loads) for impaired water bodies

The Florida Department of Environmental Protection (DEP) developed a Watershed Management Approach to address these requirements



DEP's Watershed Management Approach

- Includes a five-phase water quality assessment program
 1. Preliminary evaluation of water quality
 2. Strategic monitoring and assessment to verify impairments
 3. Development and adoption of TMDLs for waters verified as impaired
 4. Development of Basin Management Action Plan (BMAP) to achieve the TMDL
 5. Implementation of the BMAP and monitoring of results
- Divides the state into 5 groups/basins and evaluates each watershed within the basin on a five-year rotating cycle



St. Lucie-Loxahatchee River

Lake Okeechobee

Lake Worth Lagoon

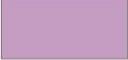
Everglades

Legend

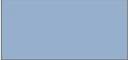
 County Limit

GROUP_NUM

 Group 1

 Group 2

 Group 3

 Group 4

 Group 5

Group 3 Lake Worth Lagoon Cycle 3 WBID Assessments

- Study Listing ✓
- Verified Listing ✓
- Delisting ✓
- Comprehensive Verified Listing ✓
- Comprehensive Delisting ✓

DEP Lake Worth Lagoon Integrated Assessment Maps

Bacteria (5)

Biology (2)

Dissolved Oxygen (3)

Turbidity (1)

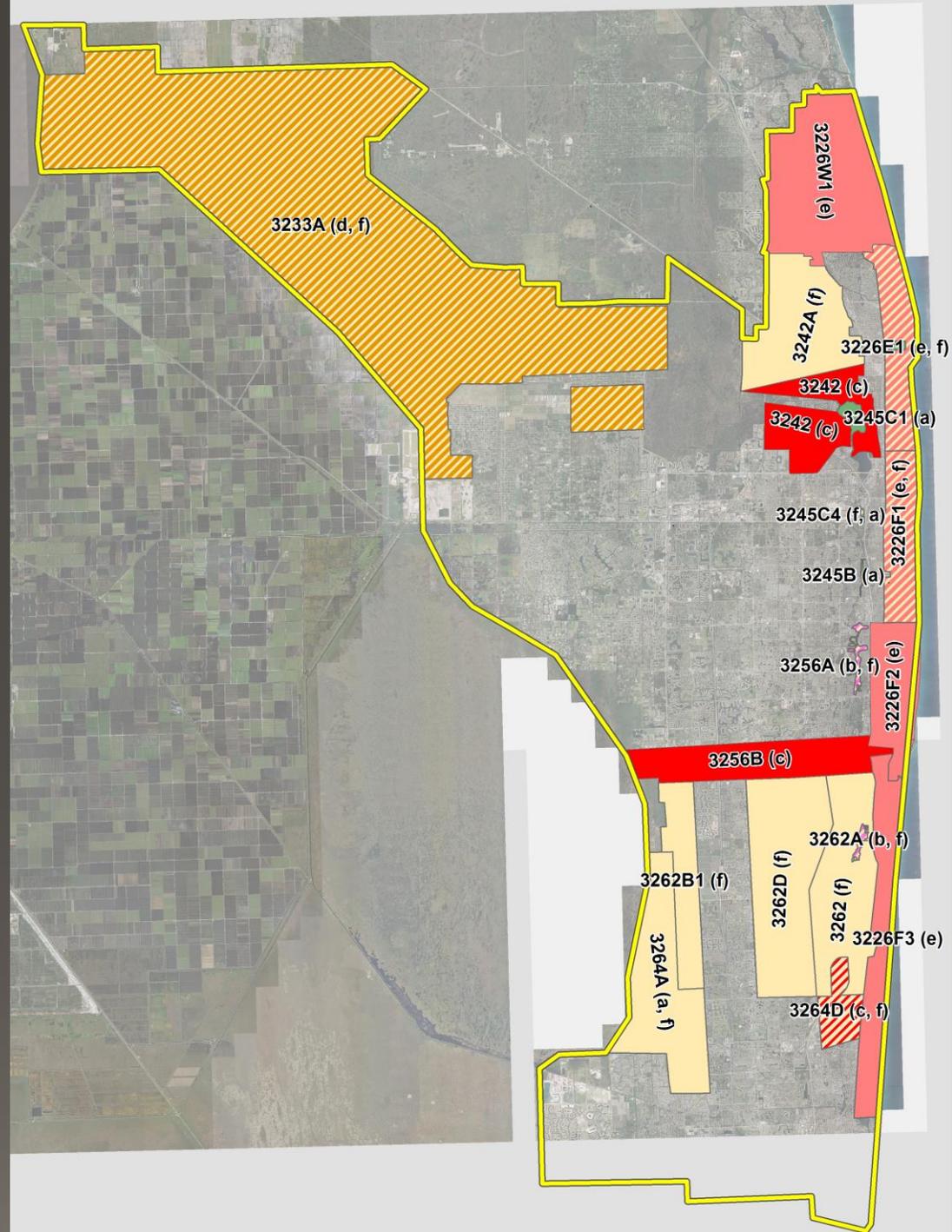
Metals (5)

Nutrients (14)



WBID Impaired

- (a) Bacteria (5)
- (b) Biology (2)
- (c) Dissolved Oxygen (3)
- (d) Turbidity (1)
- (e) Metals (5)
- (f) Nutrients (14)



Why Impaired Waters are Important to Stakeholders and MS4s

- Impairment may lead to TMDL
- TMDL requires Improvement Plan(s)
 1. Basin Management Action Plan (BMAP)-DEP
 2. Supplemental Stormwater Programs – MS4
 3. Reasonable Assurance Plan – Stakeholders

Lake Worth Lagoon Basin TMDLs Required to be Addressed by the MS4s During Cycle 4 Permit

WBID	Segment Name	Basin	Constituent	TMDL	Percent Reduction	Date	MS4's
3264A	E-1 Canal	Lake Worth Lagoon	Fecal Coliform	<400 (counts/100ml)	94	5/15/2012	PBC, FDOT
3262A	Lake Ida	Lake Worth Lagoon	Nutrients	TN=0.857 mg/l TP=0.062 mg/l	20 45	11/9/2012	Boynton Beach, Delray, FDOT, PBC



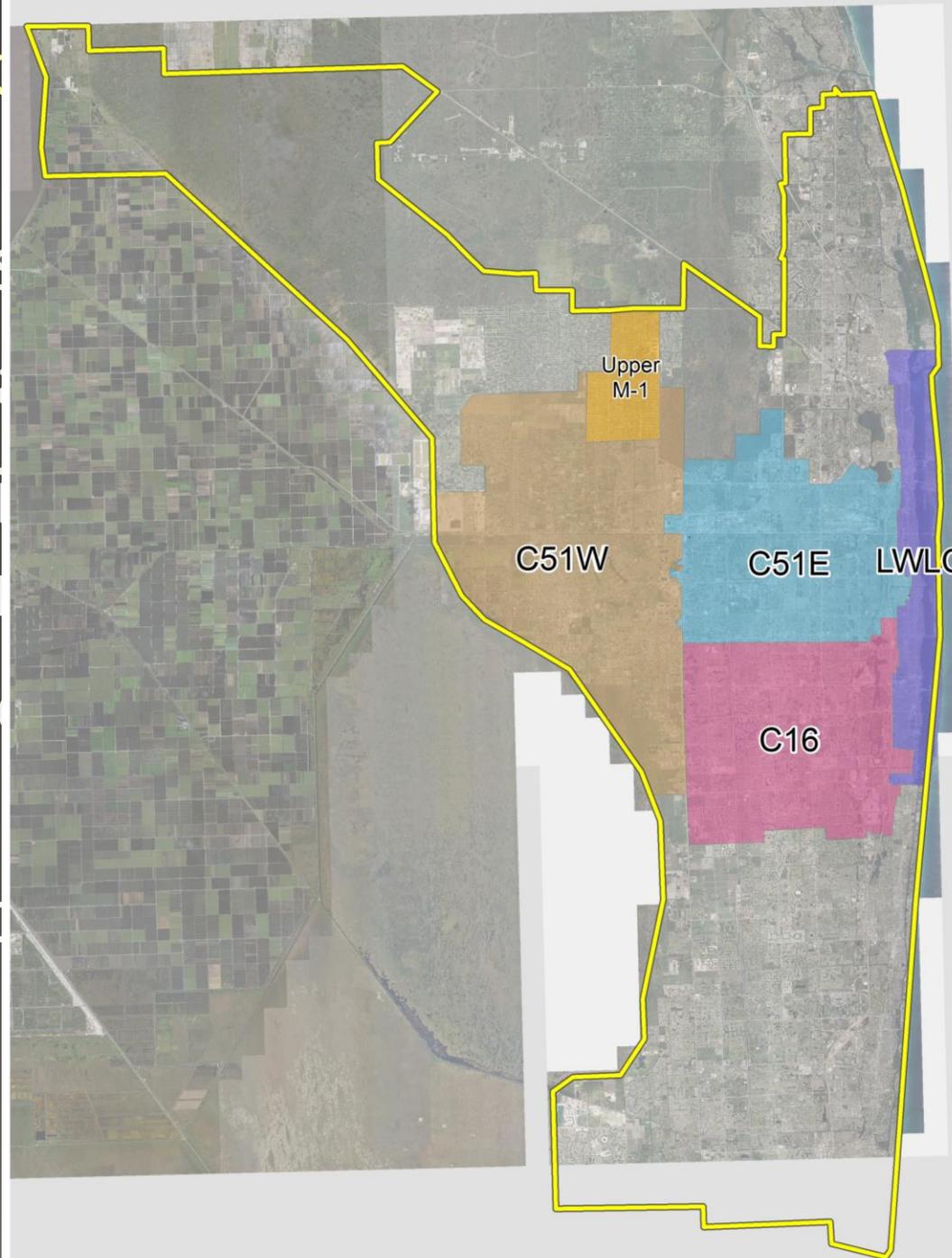
Lake Worth Lagoon Central Segment

- Identified as impaired for nutrients
- DEP will establish and adopt a TMDL
- DEP will facilitate the development of a BMAP for entire watershed with stakeholders
- Cost to stakeholder in millions of dollars – eight to nine digits
- Funding options

Lake

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BMAP for

s – eight to

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Questions



Grassy Flats
Lake Worth Lagoon