



Agenda Item 28

Everglades Agricultural Area and C-139 Basins Source Control Program Annual Update

Pamela Wade, PE, Bureau Chief
Everglades Regulation
August 14, 2014 Governing Board Meeting

Water Quality Restoration Strategies

**Stormwater Projects
Sub-Regional and Regional**



**Ecosystem
Restoration**

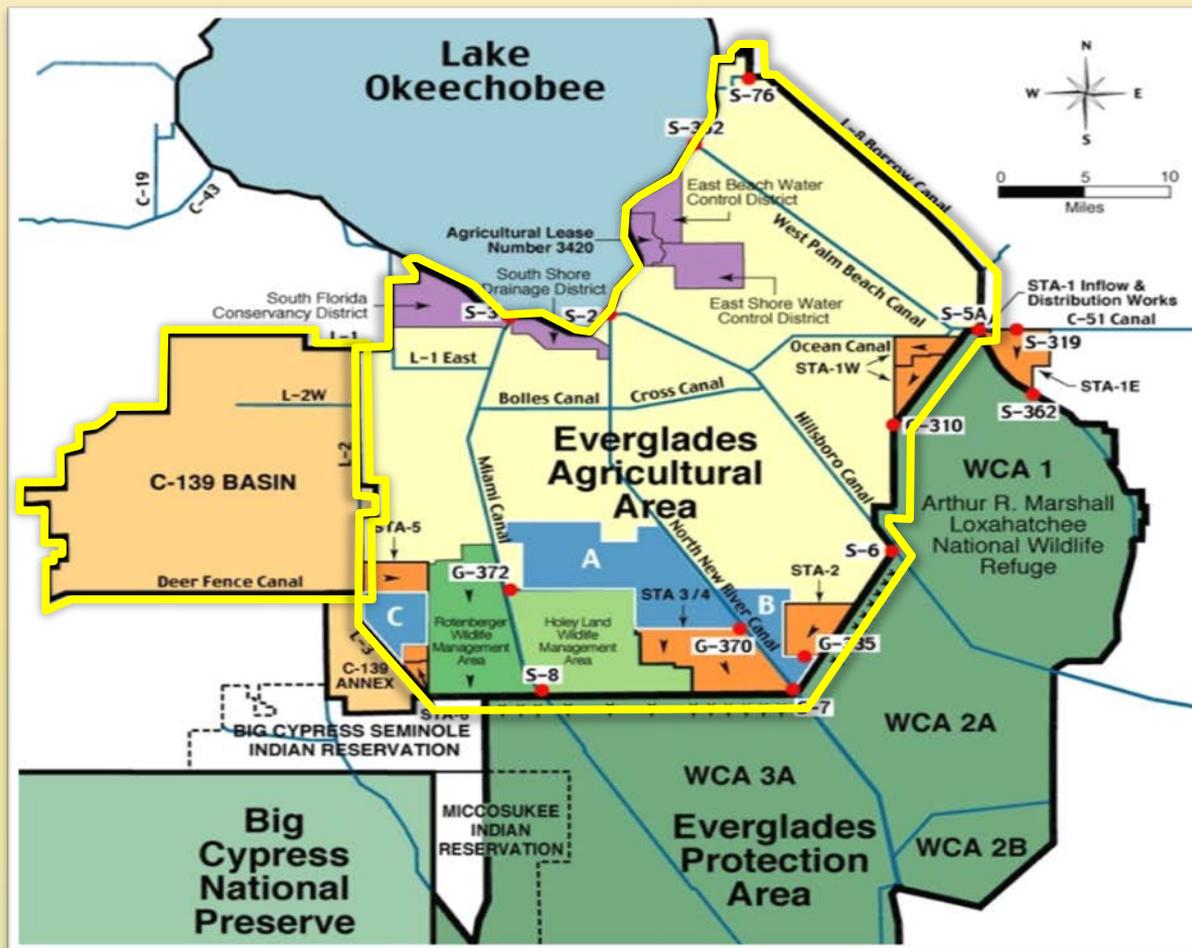


Source Controls



Everglades Agricultural Area (EAA) and C-139 Basins

Everglades Forever Act Mandates



Everglades Regulatory BMP Program



- Comprehensive Best Management Practice (BMP) Plan Permits
- Fully implemented since:
 - 1996: EAA
 - 2012: C-139
- Field and records verification
- Research and demonstration projects
- Water quality monitoring
- Performance measures:
 - EAA: 25% Total Phosphorus (TP) load reduction
 - C-139: Maintain historic TP load

Annual Total Phosphorus Load Evaluation

- Mathematical Model adopted by Rule
- Water Year 2014 (WY2014)
- Phosphorus & flow data collected by SFWMD at points to and from each basin
- Current Year's Observed Load with BMPs
- Estimated load from a base period (no BMPs)

Current versus Base Period Comparison

- 10-year pre-BMP base period
- Data are adjusted for differences in rainfall timing and distribution
- Rainfall adjustment allows for “apples to apples” comparison
- Basin compliance is determined by comparing a current year’s actual TP load with the load estimated from the rainfall adjusted base period

Compliance Methodology

Water Year TP compared to Base Period TP

- Two-Pronged Compliance Test
 - Exceeds Base Period Target for 3 consecutive years, OR
 - Exceeds Base Period Upper Limit in any single year

2014 EAA Basin Phosphorus Results

EAA Basin In Compliance

Goal → **25% reduction**

Performance → **63%**



WY2014 discharge **105 mtons**

Base Period discharge **285 mtons**

Average 55% TP Load Reduction with BMPs

BMPs have prevented 2,854 mtons of TP from leaving the EAA

C-139 Basin Phosphorus Results

C-139 Basin In Compliance

Goal: Maintain Historic Loads

Target Load ➡ 17 mtons

Upper Limit ➡ 41 mtons

Observed ➡ 28 mtons

First Compliance Determination WY2012



What's next?

- Increased BMP Field Visits
- C-139 Permittees Lessons Learned
- BMP Demonstration Projects
- Performance Monitoring
- Sub-regional Projects in the EAA
- Southern Everglades Regulatory BMP Program Successes applied to the Northern Everglades



Questions?

