



## *Caloosahatchee River Basin Management Action Plan*

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Caloosahatchee Watershed Working Group  
Meeting #3: April 30, 2009

Jennifer Thera  
FDEP South District



## *Tidal TMDL Status Update*

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- Comments Addressed and Revisions Completed by the end of the month (April)
- TMDL Finalized Mid to Late May
- DEP will then issue a “Notice of Proposed Rulemaking” that will include rule language and provide a hearing date
  - 21-day period to request a hearing to challenge proposed rule



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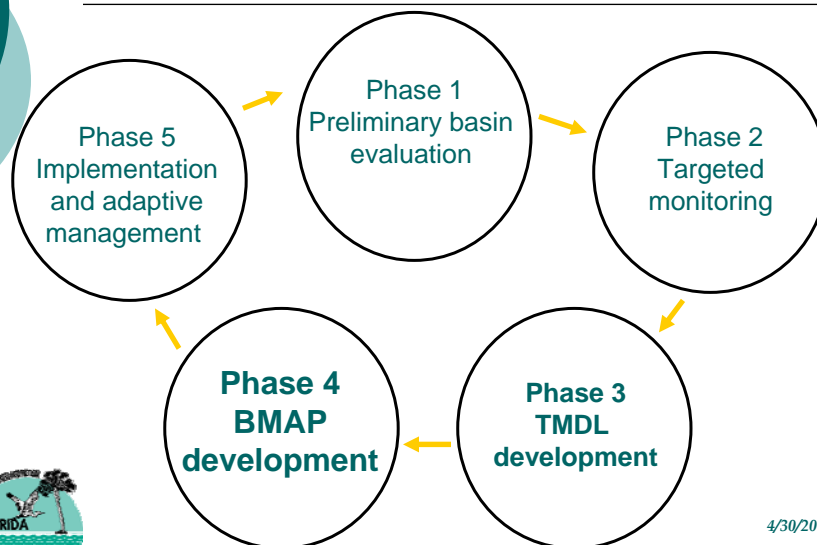
## *TMDL Development of Group 3 Waters*

- Decision-making process will be dependent upon what we find as we move to adopt the second cycle Group 3 lists.
- Try to capture all of the nutrient and DO listings that impact the estuary, regardless of whether they are on the 1998 list.
- Re-drawing of the WBID lines will not cause any impairments to go unaddressed.
- We know which stations contributed to the earlier findings and we simply update the data and apply them to the proper WBIDs.



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## *TMDL/BMAP Development*



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## *Basin Management Action Plan*

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- BMAP is the primary tool for implementing Total Maximum Daily Loads
  - 403.067(7) F.S.
  - A BMAP is not required for every TMDL
  - Depends on watershed characteristics and the impairment



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## *BMAP Basics*

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- BMAPs are developed collaboratively with stakeholders
- Point Sources: BMAPs are enforceable through wastewater and municipal stormwater permits
- Nonpoint Sources: BMAPs are linked to BMP implementation
- BMAPs are adopted by DEP Secretarial Order, but include statements of commitment from stakeholders



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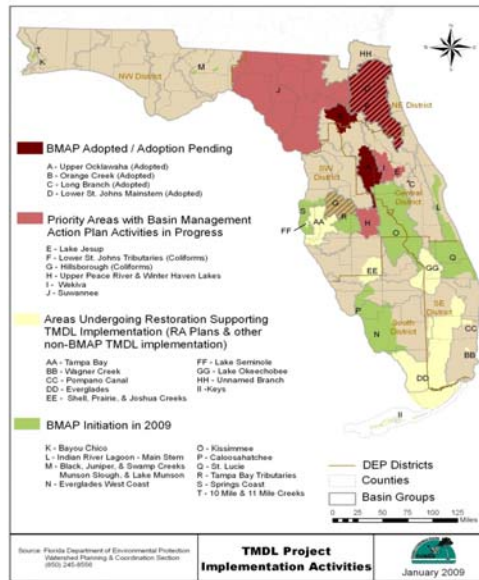
# Status

## 4 Adopted BMAPs Statewide:

- Upper Ocklawaha
- Orange Creek
- Long Branch
- Lower St. Johns Main stem

## South District BMAP Development for 2009:

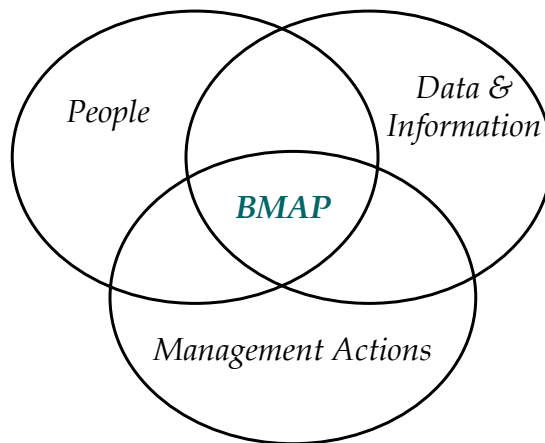
- Tidal Caloosahatchee
- Everglades West Coast



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# Key BMAP Components



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## *Building a BMAP*

Technical Analyses (e.g., what are the issues, what information exists, is the current information sufficient to support analysis and decision-making, who needs to be involved)



Calculate Detailed Allocations (if appropriate)



Integrate Related Factors (e.g. monitoring needs, research priorities, resource responses, feasibility, future growth)



Identify Management Actions, Funding, & Tracking Mechanisms (e.g., individual or regional projects, programs, regulations or public outreach)

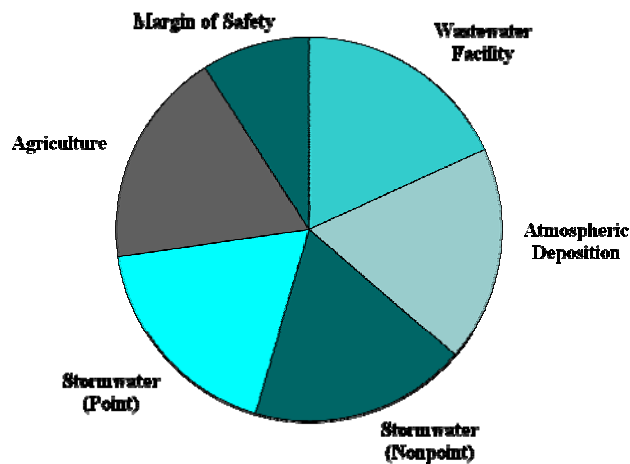


Secure Commitments



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## *Example Source Identification*



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## *Detailed Allocations*

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- The BMAP must include management and restoration activities sufficient to meet the TMDL.
- These activities can include regional water quality projects.



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## *Example Management Actions*

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- Structural BMPs
  - Quantifiable Load Reductions
  - Reductions Not Currently Quantified
- Agricultural BMPs
- Restoration and Water Quality Improvement Projects
- Regulations, Ordinances, and Guidelines
- Special Studies and Planning Efforts
- Education and Outreach Efforts
- Basic Stormwater Management Program Implementation



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## *Lower St. Johns River Main Stem*

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### Basin Management Action Plan Overview



### *Types of Nutrient Sources*

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- Upstream waters
- Urban stormwater
- Agricultural stormwater
- Domestic wastewater
- Industrial wastewater
- Atmospheric deposition



## *Anticipated Responses*

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- Reductions in nitrogen and phosphorus from BMAP implementation are expected to:
  - Improve dissolved oxygen conditions and secondary water quality characteristics
  - Lower concentrations of chlorophyll-*a* , which results in fewer algal blooms
  - Decrease the number of fish kills
  - Increase native aquatic vegetation



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## *Wastewater Permitting*

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- New discharge limits, based on allocations, will be added to the facility and/or aggregate permit
- Permits will be revised at their renewal date or two years after BMAP adoption, whichever occurs first
- For facilities that are currently not meeting their allocations, a compliance schedule will be included in an Administrative Order (AO) with the permit



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## *MS4 Permitting*

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- Phase I and Phase II MS4 permits include a “TMDL clause” that requires permittees to be in compliance with an adopted BMAP
- The stormwater management program (SWMP) must meet the standard of reducing pollutants to the Maximum Extent Practicable (MEP)
- MEP is achieved through best management practices (BMPs) and management actions (cost sharing, public education, incentive based programs, water quality credit trading, local ordinances, public works, etc.)



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## *Non-MS4 Regulation*

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- Non-MS4 areas are required to meet the pollutant reduction requirements in a BMAP
- Compliance will be based on the achievement of the project implementation schedule and milestones
- Areas that fail to comply with the BMAP can be designated as a Phase II MS4 by FDEP



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## *Agriculture Allocations*

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- Producers will implement BMPs on their commodities that have an approved Florida Department of Agriculture and Consumer Services (FDACS) manual
- Once the BMAP is adopted, FDACS will obtain Notices of Intent (NOIs) from the growers -this means they will be required to implement approved BMPs or monitor their runoff to demonstrate they have no impacts



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## *Agriculture Allocations (con't)*

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- The remainder of the agriculture reductions, after BMP implementation, will be met with regional stormwater treatment (RST) facilities
- Two new RSTs are needed to meet the freshwater allocation
- Four new RSTs are needed to meet the marine allocation
  - The agricultural acreage in the marine section has decreased since the time of the TMDL and will be reevaluated in the next cycle



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## *Projects to Meet Allocations*

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- Entities were required to submit a list of projects to provide reasonable assurance that they can meet their allocation
- The project list can be modified as long as the required reductions and BMAP implementation schedule are met
- When the BMAP is adopted, the entities can change the project type, but they are committed to the schedule for reductions included in the BMAP



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## *Agricultural Projects to Achieve Reductions:*

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- Agricultural BMPs (growers and FDACS)
- Regional Stormwater Treatment areas (SJRWMD, Putnam County, St Johns County)
- Testing of advanced BMPs



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## *Wastewater Nutrient Reductions:*

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### Wastewater upgrades:

- JEA-Improvements to multiple wastewater plants (e.g Arlington East, Buckman)
- Decrease river discharges; increase water to reuse distribution systems for irrigation
- Atlantic Beach plant improvements
- Hastings plant improvements
- Palatka plant improvements
- Orange Park sending water to Clay County Utilities reuse system
- Failing septic tank removals (City of Jacksonville)



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## *Stormwater Nutrient Reductions:*

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- Structural treatment of stormwater
  - City of Jacksonville (retention/ detention)
  - Camp Blanding (swales)
- Enhanced ordinances – fertilizer use, irrigation, pet waste, Florida-friendly landscaping
- Public education programs
- Nonstructural treatment activities (e.g. street sweeping, baffle boxes)



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## *Tracking BMAP Implementation*

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The Executive Committee will meet every 12 months to follow up on project implementation, water quality trends, and other TMDL-related issues

Adaptive management will be utilized to assess progress towards the TMDL targets and make changes to the BMAP, as necessary

The BMAP can be revised, if FDEP determines there is a major change that will effect the approach to meet the TMDL

The BMAP is usually revised during the appropriate phase of the basin rotation schedule



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## *Lower St. Johns Mainstem*

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- BMAP adoption pending
- 16 Executive Committee Members
- Marine & freshwater St. Johns River mainstem, impaired for nutrients
- Successes
  - Developed robust water quality model for complicated system
  - Developed scientifically defensible water quality targets
  - Commitments for substantial wastewater treatment reductions and reuse
  - Pilot water quality credit trading program
  - Commitments for specific nutrient reductions from agriculture
  - Wide variety of stakeholders working together to reach the TMDL



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## Caloosahatchee BMAP

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- Will involve stakeholder input
- Will be based off the TMDL
- Going to be different than any other BMAP done because of the differences in the watershed
- Will focus on nutrient load reductions
- Will equitably allocate nutrient load reductions to sources within the basin (e.g. MS4 systems)



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## Caloosahatchee BMAP, cont.

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- Will build upon the extensive work already conducted for the Caloosahatchee River Watershed Protection Plan (CRWPP)
- BMAP document will be merged into the CRWPP document forming only one document
- Kickoff meeting July 2009



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## *What can we expect from the BMAP process and document?*

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- Documentation of existing:
  - Water quality issues
  - Pollutant reduction efforts
  - Commitments for future projects, programs, regulations, outreach, etc.
- Analysis of additional needs:
  - Data and information
  - Pollutant reductions
  - Education and outreach
- Strategy to meet needs:
  - Cost-effective
  - Timely



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## *QUESTIONS???*

<http://www.dep.state.fl.us/water/tmdl/index.htm>

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