



Florida Department of
Environmental Protection

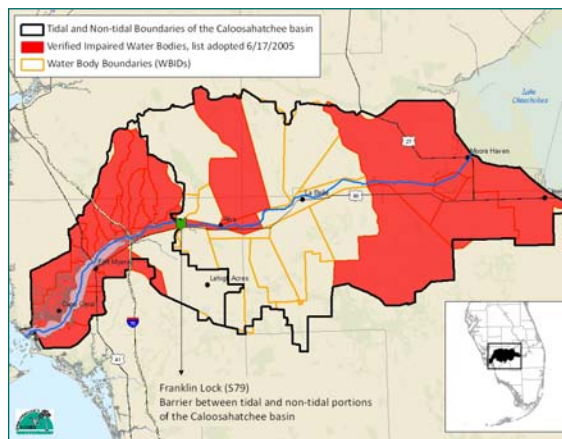
Caloosahatchee TMDL Status

Caloosahatchee Watershed Working Group
Meeting #2: March 23, 2009

Jon Iglehart
Jennifer Thera
DEP South District



Caloosahatchee Basin Map





Caloosahatchee Water Quality

- Loss of natural land from development, stormwater runoff, construction of drainage canals, and agricultural activities have affected the **quality** and **quantity** of water to the estuary creating water quality impairments.
- Increased nutrient loading into the river and estuary is the most common problem affecting the quality of water.
- The quantity and timing of freshwater flows from runoff or releases from Lake Okeechobee is also causing a negative effect on the river's water quality.
- The Caloosahatchee river and estuary have experienced significant and harmful **algae blooms** as well as a decrease in **seagrass abundance and health** in the estuary.

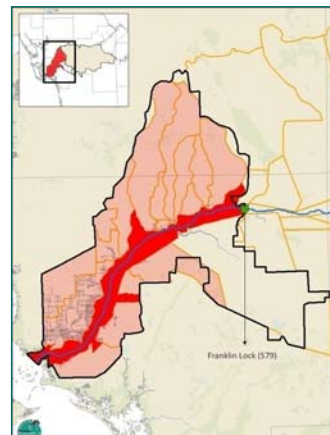


March 23, 2009 | 3



Caloosahatchee Water Quality, cont.

- The Legislature recognized these problems in the NEEPP legislation
- Required the accelerated development of a nutrient TMDL for the tidal Caloosahatchee River
- Required the development of the Caloosahatchee River Watershed Protection Plan
- Tidal River Impairments
 - Nutrients (Chlorophyll a), Dissolved Oxygen, and Fecal Coliform
 - Copper (3240A only)



March 23, 2009 | 4



TMDL

Total Maximum Daily Load:

Establishes the maximum amount of a pollutant that a water body can assimilate without causing exceedances of water quality standards

Florida's mechanism for meeting the requirements of the Clean Water Act

DEP's TMDL program is Florida's surface water assessment and restoration program



March 23, 2009 | 5



Tidal Nutrient TMDL

- Water quality data indicated nutrients, specifically total nitrogen (TN), as the causative pollutant
- The target was based on Seagrass light requirements in San Carlos Bay
- Through modeling efforts a 23% reduction in total nitrogen was found to be protective

TMDL= 23% Reduction in Total Nitrogen

Parameter	WLA		LA (lbs/year)	MOS	TMDL (lbs/year)	Current Loading (lbs/year)	Percent Reduction
	Wastewater (lbs/year)	NPDES Stormwater (Percent Reduction)					
TN	Permitted Loads	23%		Implicit and Explicit	8,986,772	11,671,133	23%



March 23, 2009 | 6



Tidal Nutrient TMDL, cont.

- Results found were comparable to other nutrient reduction targets suggested for the Caloosahatchee Estuary
 - Doering and Chamberlain 2005
 - Hand et al. 1990
 - The Caloosahatchee River Watershed Protection Plan (which formulated for maximum nutrient reduction)



March 23, 2009 | 7



TMDL Schedule for Caloosahatchee

- Tidal Caloosahatchee (Estuary)
 - Draft Nutrient TMDL review period ended on 3/16 and DEP is currently addressing comments
 - 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
 - If there are no challenges, DEP expects to have an adopted TMDL by May 2009
 - DEP will then submit it to EPA for approval



March 23, 2009 | 8



TMDL Schedule for Caloosahatchee, cont.

- Freshwater Basin, Tributaries, and Remainder of Tidal Impairments Schedule:
 - Draft impaired water list available for public comment – Late Summer 2009
 - TMDL development of select waterbodies – 2010
 - Primary Impairments to be addressed are **Nutrients** and **Dissolved Oxygen**
 - Other Impairments addressed may include **Fecal Coliform Bacteria** and **Metals**



March 23, 2009 | 9



Basin Management Action Plan

- **Basin Management Action Plan**
The “blueprint” for restoring impaired waters by reducing pollutant loadings to meet the allowable loadings established in a TMDL

i.e. Detailed allocations and projects on how the load reductions will be accomplished
- Initiation of BMAP process for the tidal Caloosahatchee River expected – May 2009



March 23, 2009 | 10



Basin Management Action Plan, cont.

- Caloosahatchee BMAP:
 - Will build upon the extensive work already conducted for the Caloosahatchee River Watershed Protection Plan (CRWPP)
 - Will focus on nutrient load reductions
 - Will equitably allocate nutrient load reductions to sources within the basin (e.g. MS4 systems)
- BMAP document will be merged into the CRWPP document in 2012 forming only one document



March 23, 2009 | 11



Other Important Efforts :

- Implementation of the plans listed below will lead to the restoration of the Caloosahatchee river and estuary:
 - Develop and Implement TMDLs
 - River of Grass Restoration
 - Caloosahatchee River Watershed Protection Plan (CRWPP)
 - Lake Okeechobee Watershed Construction Project Phase II Technical Plan
 - Comprehensive Everglades Restoration Plan



March 23, 2009 | 12



Questions?

Nutrient TMDL for the Caloosahatchee Estuary
(WBIDs 3240A, 3240B, and 3240C)

http://www.dep.state.fl.us/water/tmdl/draft_tmdl.htm