

Florida Department of Environmental Protection



Nutrient TMDL Escambia Bay / TMDL Chapter 7 Issues

March 13, 2013
Steve Cioccia – DEP





Nutrient TMDL Bayou Chico TMDL Chapter 7 Issues

- North Escambia Bay (WBID 548AA), Judges Bayou (marine WBID 493B), Judges Bayou (freshwater WBID 493A), and Bayou Chico (WBIDs 846 and 846C) Nutrient and Dissolved Oxygen TMDLs.
 - http://www.dep.state.fl.us/water/tmdl/repost_tmdl.htm
 - Pending legislative ratification as of 3/12/2013, awaiting Statement of Regulatory Cost approval.



Nutrient TMDL Escambia Bay

Area of TMDL Coverage





Bayou Chico (WBIDs 846 and 846C) TMDL Allocations

WBID	Parameter	WLA		LA (% reduction)	MOS	TMDL (% reduction)
		Wastewater (lbs/year)	Stormwater (% reduction)			
846C	TN	NA	30	30	Implicit	30
846C	TP	NA	30	30	Implicit	30
846	TN	NA	30	30	Implicit	30
846	TP	NA	30	30	Implicit	30

- These reductions resulted in long-term average Bayou Chico concentrations for TP in WBID 846C of 0.027 mg/L and in WBID 846 of 0.025 mg/L. For TN in WBID 846C, the concentration is 1.4 mg/L and in WBID 846, 1.22 mg/L. For CChla in WBID 846C, the concentration is 8.88 µg/L and for WBID 846, 8.93 µg/L. These reductions are based on data from the years 2002 – 2009. As these reductions are provided as a percentage, they are applicable over any time frame, including daily.



TMDL Chapter 7.2 - Next Steps for TMDL Implementation

- **Four issues within TMDL Chapter 7.2 (Next Steps for TMDL Implementation) planned for resolution in the BMAP arena.**
 - **Issue 1. Evaluate the synergistic impacts of the BMAP for Fecal Coliform in the Bayou Chico watershed.**

Within the BMAP for FC there are numerous projects that will either reduce nutrients (removing septic tanks from areas adjacent to the water), improve the flushing characteristics of the bayou (removing constrictions between the upper and lower areas of the bayou), or remove contaminated sediments.

DEP intends to work with the BMAP partners and determine the level of credit for nutrient reductions that can be assigned to those projects that have potential to improve overall water quality.



TMDL Chapter 7.2 - Next Steps for TMDL Implementation (cont.)

Issue 1. Evaluate the synergistic impacts of the BMAP for Fecal Coliform in the Bayou Chico watershed (cont.).

If it is determined that the level of nutrient reductions from implementing projects in the Fecal BMAP will achieve the required reductions of the nutrient TMDL, the FDEP will not require additional projects to restore the nutrient conditions in Bayou Chico.

Lead FDEP: Douglas Gilbert TMDL, Steve Cioccia BMAP

Partners:

Escambia County (Chips Kirschenfeld),
City of Pensacola (?),
Emerald Coast Utility Authority [ECUA (?)],
Escambia County Health Department (?),
UWF - Center for Environmental Diagnostics and Bioremediation [UWF-CEDB (?)],
NWFWMMD (?),
FDEP NW District (?),
Others (?)



TMDL Chapter 7.2 - Next Steps for TMDL Implementation (cont.)

Issue 3. Allocations for the WLA stormwater and LA components of the TMDL:

A flow adjusted trend analysis by the FDEP Status and Trends staff for the period January 1999 through June 2011 indicate that TN and CChla have a significant increasing trend at both the state line and Molino, while TP has remained unchanged at the state line, but decreased at Molino. There is a need to assess water quality data at USGS gage sites (or other long-term flow sites) within Alabama, to determine if nutrient load reductions are occurring within Alabama.

FDEP will work within the BMAP process to establish the most equitable and cost effective manner to allocate any nutrient reductions required.

Lead FDEP: Douglas Gilbert TMDL, Steve Cioccia BMAP, Gail Sloan Watershed Monitoring.



TMDL Chapter 7.2 - Next Steps for TMDL Implementation (cont.)

Issue 3. Allocations for the WLA stormwater and LA components of the TMDL (cont.):

Partners:

Alabama (Chris Johnson),
Emerald Coast Utilities Authority (ECUA) (Don Palmer),
Escambia County (?),
City of Pensacola (?),
NWFWMMD (?),
FDEP NW District (?),
Others (?)



Bayou Chico BMAP Contact

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<http://publicfiles.dep.state.fl.us/DEAR/BMAP/PensacolaBasin/BayouChico/Meetings/1stAnnualMtg>