

Summary of Major Aspects of the Fecal Coliform TMDLs Prepared by the Florida Department of Environmental Protection for the Bayou Chico Watershed (WBIDs: 846, 846A, 846B, 846CB, & 848DA)

- Location: Escambia County, Florida
- 10.36-square-mile (mi²) drainage area
- The watershed covered by the TMDL contains Bayou Chico (WBID 846), which discharges directly to Pensacola Bay, as well as Bayou Chico Drain (846C), Bayou Chico Beach (846CB), Sanders Beach (848DA), and Jones Creek (846A) and Jackson Creek (846B), which flow into Bayou Chico
- Surface Waters have an area of 0.39 square miles, while the surrounding watershed is mostly made up of Urban and Wetland (72.95%) land uses
- Florida's 1998 303(d) list included 19 waterbodies in the Pensacola Basin
- The Impaired Waters Rule assessment period was January 1, 1998 through June 30, 2005
- The TMDL addresses the fecal coliform impairments – measured values for the 965 samples collected range from 0 counts/100 mL to 25,000 counts/100 mL
- The criteria we checked against was "Not greater than 400 in 10% of the samples"
- There are currently no Industrial or Domestic facilities with a permit to discharge treated wastewater in the Bayou Chico Watershed
- Within the Pensacola Basin, the stormwater collection systems owned and operated by co-permittees Escambia County, City of Pensacola, Town of Century, and Florida Department of Transportation District Three within Escambia County, Florida, are covered by an NPDES municipal separate storm sewer system (MS4) permit (FLS000019). Several other local governments in the basin have also applied for coverage under the Phase 2 NPDES MS4 permit. These include Santa Rosa County, Milton, Gulf Breeze, and Florida DOT within Santa Rosa County.

Bayou Chico Watershed (total of all 6 WBIDs) Acres

Urban and Built Up	4211.66
Agriculture	79.05
Rangeland	276.68
Upland Forests	580.11
Water	252.45
Wetlands	777.60
Barren Land	22.45
Transportation, Communication and Utilities	639.31
Total	6839.31

Assumptions used in TMDL study

- Failed OSTD systems were based on county-wide data, not site specific data, and were based on census and Dept of Health reports
- Projections were provided to show the relative potential of typical sources to cause impairments in the watershed. These values were not used to set the TMDL.

Nonpoint Source Category	Internal Loads to Bayou Chico Watershed (cfu/day)	% of Total Load
Total Livestock	2.3819E+12	9.29
Total Wildlife	1.3442E+12	5.24
Total Domestic Animals (no cats)	1.8593E+13	72.50
Total Septic Tanks Leaks	1.3378E+12	5.22
Total Boats	1.9960E+12	7.78
TOTAL	2.5653E+13	100.00

- The approach use to set the TMDL was the Load duration curve/ Kansas approach and was expressed as a percent reduction. The reductions were based on the measured fecal coliform levels in the ambient waters relative to the criterion used to determine impairment.

Excerpts from the Final TMDL Report for the Bayou Chico Watershed

Load Allocation (LA)

- Based on a load duration curve approach similar to that developed by Kansas (Stiles, 2002), a fecal coliform reduction of 61% is needed from nonpoint sources. It should be noted that the LA includes loading from stormwater discharges regulated by the Department and the Water Management Districts that are not part of the NPDES Stormwater Program

Wasteload Allocation (WLA)

- Currently, there are no permitted NPDES wastewater discharges in this basin. Any new potential discharger would be expected to comply with the Class III criteria for coliform bacteria.

NPDES Stormwater Discharges

- As mentioned previously, there are no permitted wastewater facilities with a discharge permit in the Bayou Chico Watershed. Any new potential discharger would be expected to comply with the Class III criteria for coliform bacteria.
- **The TMDL is then calculated at the median (50%) of the flow range. Table 5.4 shows the loading from fecal coliforms would need to be reduced by 61.25% to meet the TMDL water quality target of 400 counts/100 ml.**