

# The Choctawhatchee Bay Watershed Water Quality Assessment

## Watershed Management and Ecological Monitoring

**Start / End Dates:** 2004

**Key Project Personnel Involved in this Project:**

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**Project 7**

### Brief Description of Work Performed:

This study was funded by the Choctawhatchee Basin Alliance with a grant from the NFWMD to examine nutrient loading in this Outstanding Florida Waterbody (OFW) as development pressures increase in its rapidly developing basin. McGlynn Labs was a consultant on this study along with BRA. The prime contractor was BDI. McGlynn Labs performed the laboratory analysis, data crunching and statistical analysis. Chemical Parameters include, Chlorophylls, True Color, Inorganic Matter (Particulate and Dissolved), Nutrients (TN, NH<sub>3</sub>, NO<sub>2</sub> and NO<sub>3</sub>), Oxygen Demand (Biochemical), Organic Carbon (Particulate and Dissolved), Organic Matter (Particulate and Dissolved), Phosphorous (total, organic and reactive), Solids (TSS) and Turbidity. McGlynn Labs wrote most of the Final Report.

Phase I was to determine the current condition of the bay utilizing data from the numerous studies and



monitoring programs in the Choctawhatchee Bay area. This data then was loaded into a single database for trend analysis. Phase II completed an intensive/event-related water quality study of Boggy and Hogtown Bayous. Periodic sampling was conducted to establish background water quality and assess water quality changes. This sampling effort was coordinated with weather related events and ambient conditions. McGlynn Labs also conducted a review of historical and current data on atmospheric deposition for the study. The data was to be used

to aid in the development of the proportionate nutrient loading rate.

The database generated for this study was used by FDEP's TMDL program for the TMDL on the Choctawhatchee Basin. The project recommended the establishment of a Florida-Alabama Watershed Improvement District, stormwater management projects in Niceville for the Boggy Bayou watershed, shoreline restoration at Cessna Park on Hogtown Bayou, the paving project for dirt roads in the Hogtown Bayou watershed and a Septic tank abatement program for the Hogtown Bayou watershed.