

**STATE OF GEORGIA
REVISED TMDL IMPLEMENTATION PLAN
OCONEE RIVER BASIN**

SEDIMENT (Biota/Habitat Impacted)—0% REDUCTION REQUIRED

**Prepared by
The Georgia Department of Natural Resources
Environmental Protection Division
Atlanta, GA**

TMDL Implementation Plans are platforms for establishing a course of actions to restore the quality of impaired water bodies in a watershed. They are intended as a continuing process that may be revised as new conditions and information warrant. Procedures will be developed to track and evaluate the implementation of the management practices and activities identified in the plans. Once restored, appropriate management practices and activities will be continued to maintain the water bodies. The overall goal of the Plan is to define a set of actions that will help achieve water quality standards in the state of Georgia.

This Implementation Plan is applicable to the following segments in the Oconee River Basin:

Impaired Waterbody	Impaired Stream Location
1. Alligator Creek	Headwaters to Ugly Creek; Twiggs County
2. Little Fishing Creek	Baldwin County
3. Little River*	Morgan and Putnam Counties (EPA) EPD identifies Little River as these segments: Nelson Creek to Shoal Creek Shoal Creek to Gap Creek Social Circle to Nelson Creek Gap Creek to Glady Creek Glady Creek to Lake Sinclair
4. Middle Oconee River*	Barrow, Clarke, and Jackson Counties (EPA) EPD identifies Middle Oconee River as these segments: McNutt Creek to Oconee River Mulberry River to Big Bear Creek Big Bear Creek to McNutt Creek
5. Mulberry River*	Barrow and Jackson Counties (EPA) EPD identifies Mulberry River as this segment: Headwaters to Little Mulberry River

6. North Oconee River*	Hall and Jackson Counties (EPA) EPD identifies North Oconee River as these segments: Headwaters to Chandler Creek Chandler Creek to Bordens Creek Bordens Creek to Curry Creek Curry Creek to Jackson County Jackson County to Sandy Creek Sandy Creek to Trail Creek (Athens) Trail Creek to Oconee River
7. Sandy Creek	Jones and Twiggs Counties; Headwaters to Harrison's Lake/Little Sandy Creek
8. Sandy Run Creek	Hancock County
9. Tobler Creek	Baldwin County
10. Walnut Creek*	Hall and Jackson Counties (EPA) EPD identifies Walnut Creek as this segment: Headwaters to Caney Fork
11. Zoie Brown Creek	Tributary to Buffalo Creek; Hancock County

*Segments added by the U.S. EPA to Georgia's 2000 303(d) list (Appendix B)

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) and the Georgia Environmental Protection Division (EPD) developed Total Maximum Daily Loads (TMDLs) in 2002 for sediment for streams in the Oconee River Basin with biota/habitat-impacted designation on Georgia's 2000 Section 303(d) List. The biota/habitat-impacted designation indicates that studies have shown a modification of the biological community which is generally caused by habitat loss due to stream sedimentation. The narrative sediment standard is to prevent objectionable conditions that interfere with legitimate water uses, as stated in Georgia's Rules and Regulations for Water Quality Control Chapter 391-3-6-.03(5)(c):

“All waters shall be free from material related to municipal, industrial, or other discharges which produce turbidity, color, odor or other objectionable conditions which interfere with legitimate water uses.”

Eleven of the listed segments (shown above) that were found to be impaired due to sediment have shown, based on the current estimated annual loading for the segments, that no reduction in sediment loading is needed to meet water quality standards.

DISCUSSION OF POLLUTANT

Erosion and sedimentation are a major disturbance to stream habitats. Excessive sediment can cause several changes to a stream, such as making the stream shallower and wider, thus affecting the stream's temperature, dissolved oxygen, flow rate, and velocity. Excess sediment loads can be detrimental to aquatic life by interfering with photosynthesis, respiration, growth, and reproduction. Sediment can also carry attached nutrients, pesticides, and metals into streams. High turbidity associated with sediment loads also impairs recreational uses and increases the cost of treating drinking water.

POLLUTANT SOURCES

The current loading on these 11 segments is below the TMDL. It has been determined that the sediment found in these segments is due to past land use practices and is referred to as "legacy" sediment. It is believed that if sediment loads are maintained at current levels then the streams will repair themselves over time.

PLAN FOR IMPLEMENTATION OF TMDL

Although sediment load reductions are not needed for these 11 segments, compliance with NPDES permits, diligent application of the Erosion and Sedimentation Control Act and local ordinances to land disturbing activities, and application of Best Management Practices (BMPs) to control sediment delivery from other activities will be necessary to meet the TMDL for these segments. Management practices that may be used to help maintain average annual sediment loads at current levels include:

- Compliance with NPDES permit limits and requirements
- Implementation of GFC's Best Management Practices for Forestry
- Adoption of NRCS Conservation Practices
- Adherence to the Mined Land Use Plan prepared as part of the Surface Mining Permit Application
- Adoption of proper unpaved road maintenance practices
- Implementation of Erosion and Sedimentation Control Plans for land disturbing activities
- Mitigation and prevention of stream bank erosion due to increased streamflow and velocities caused by urban runoff

MONITORING PLAN

The Oconee River Basin along with the Ocmulgee and Altamaha River Basins were the basins of focused monitoring in 1999 and will again receive focused monitoring in 2004. One goal of the focused basin monitoring is to continue to monitor 303(d) listed waters. Therefore, additional monitoring of these streams will be initiated as appropriate during the next monitoring cycle to determine if there has been improvement in habitat and biological communities.

REFERENCES

Georgia Rules and Regulations for Water Quality Control, Chapter 391-3-6-.03, Water Use Classifications and Water Quality Standards, May 2002.

GAEPD, 1999. *Oconee River Basin Management Plan 1998*, Georgia Department of Natural Resources, Environmental Protection Division.

GAEPD, 2002. Total Maximum Daily Load Evaluation for Fifteen Stream Segments in the Oconee River Basin for Sediment (Biota Impacted). January 2002.

USEPA, 2002. Total Maximum Daily Load for Sediment in the Oconee River Basin. February 2002.