

STATE OF GEORGIA
REVISED TMDL IMPLEMENTATION PLAN
Buck Creek Watershed
Revision 01; June 15, 2007

**Not Supporting Stream due to Dissolved Oxygen
and Fecal Coliform Bacteria**

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TMDL Implementation Plans are platforms for establishing courses of actions to restore water quality to impaired water bodies in a watershed. They are intended to be 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 water quality of the water bodies.

The initial TMDL Implementation Plan was part of the TMDL developed in 2005. This Revision supercedes the initial TMDL Implementation Plan.

Table 1. This Implementation Plan is applicable to the following streams in the Savannah River Basin:

STREAM	LOCATION	Miles Impacted	COUNTY
Buck Creek	Downstream Sylvania WPCP to Savannah River	12	Screven

INTRODUCTION

The Total Maximum Daily Load (TMDL) process establishes the allowable pollutant loadings or other quantifiable parameters for a water body based on the relationship between pollutant sources and in-stream water quality conditions. This allows water quality-based controls to be developed to reduce pollution and to restore and maintain water quality.

Buck Creek is located in the Savannah River Basin in Screven County. Buck Creek was placed on the 303(d) list for low Dissolved Oxygen (DO) and Fecal Coliform Bacteria. The DO listing was based on water quality modeling results and not for measured DO concentrations below water quality standard. The model predicted DO below water quality standard due to the Sylvania Water Pollution Control Plant (WPCP). The water use classification for Buck Creek is Fishing. The potential cause of fecal coliform bacteria violations listed in the TMDL includes urban runoff, nonpoint sources, and municipal facilities.

PLAN FOR TMDL IMPLEMENTATION

The National Pollutant Discharge Elimination System (NPDES) Permit for the Sylvania Water Pollution Control Plant (WPCP) was issued July 31, 2001 with effluent limits of 30 mg/l, 2 mg/l and 5 mg/l for BOD, ammonia and DO respectively. These limitations contained lower ammonia limits to prevent toxicity and reduce oxygen demand and are considered protective of water quality standards. The revised NPDES permit drafted for 2006 has not been issued. The City of Sylvania requested and was granted a Seasonal Waste Load Allocation to operate the Sylvania WPCP until conditions of the new permit are resolved.

Identification of specific fecal coliform sources for this stream is not possible at this time due to the widespread nature of these bacteria in natural environments. With this fact in mind, TMDL implementation for this plan should concentrate on educating the public on potential sources of fecal coliform and encouraging implementation of 'good housekeeping practices' directed toward reducing introduction of this contaminant to surface waters.

MONITORING PLAN

The NPDES permit requires monitoring of effluent BOD and ammonia two times per week and dissolved oxygen seven times per week.

Georgia Environmental Protection Division (GA EPA) encourages local governments and municipalities to develop a water quality monitoring program. These programs can help pinpoint various fecal coliform sources as well as verify the 303(d) stream segment listing. This is especially valuable for those stream segments where listing was based on limited data. The regularly scheduled sampling will determine if there has been some improvement in the water quality of the listed stream segment.

REFERENCES

GA-EPD 2005, Total Maximum Daily Load Evaluation for Three Stream Segments in the Savannah River Basin for Dissolved Oxygen (January 2005).

GA-EPD 2005, Total Maximum Daily Load Evaluation for Thirty-Two Stream Segments in the Savannah River Basin for Fecal Coliform (January 2005).

Georgia Rules and Regulations for Water Quality Control, Chapter 391-3-6-03, Water Use Classifications and Water Quality Standards, Revised November 2005.