

**STATE OF GEORGIA  
TMDL IMPLEMENTATION PLAN**

**For Copper in Lake Hartwell  
Savannah River Basin**

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.

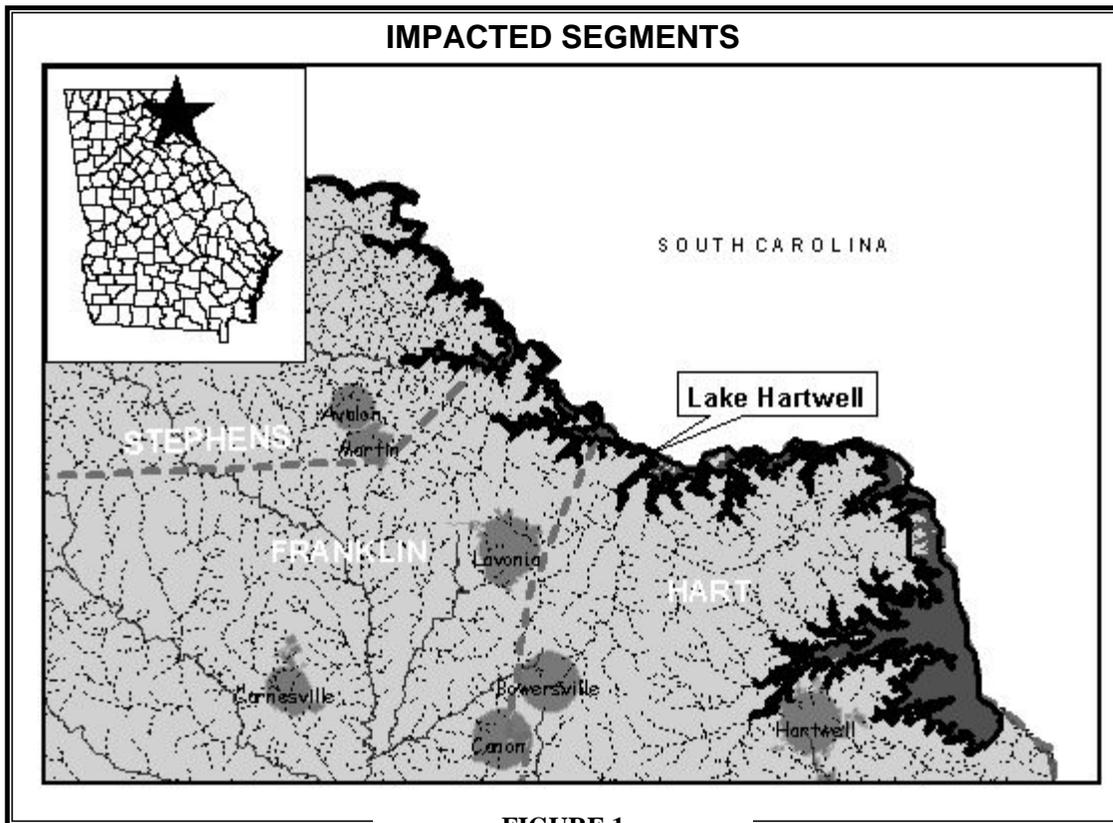


FIGURE 1

Impaired Waterbody Name	Location	Miles/Area Impacted	River Basin
1. Hartwell Reservoir	Tugaloo Arm-Main Body	55,950	Savannah

## **INTRODUCTION**

Georgia's final 1998 Section 303(d) list identified Lake Hartwell as not supporting its designated use due to copper. This listing was based on older data taken using non-clean sampling methods. More recent sampling by the U.S. Environmental Protection Agency (EPA) indicates that copper is no longer causing impairment in Lake Hartwell.

## **DISCUSSION OF POLLUTANT**

Copper is a naturally occurring element that is found in various compounds with other elements. The metallic form of copper has a number of common uses ranging from water pipes, coinage, and electrical wiring & components. Copper salts such as copper sulphate are used in agriculture as a fungicide.

## **WATERBODIES COVERED IN THIS PLAN**

On the 1998 Section 303(d) list, the state of Georgia included the Hartwell Reservoir from the Tugaloo Arm to the main body of the lake for a total of 55,950 acres.

## **PLAN FOR IMPLEMENTATION OF TMDL/ MONITORING PLAN**

Since more recent sampling indicates that copper is no longer an impairment in Lake Hartwell, no implementation plan for copper is currently necessary. However, the State of Georgia will continue to provide guidance and education to the public on water quality issues through outreach by the Water Protection Branch. In addition, improved treatment and lower permitted levels of copper discharge have reduced the copper load in the watershed. Future permitted discharges will be based on the Total Maximum Daily Load of 12.6kg/day and wasteload allocation (WLA) of .42kg/day calculated for Lake Hartwell.

## **REFERENCES**

Agency for Toxic Substances and Disease Registry, 1999. *Copper CAS # 7440-50-8*.