

**Revised TMDL Implementation Plan  
HUC 0307010103 - Kingswood Branch  
April, 2003**

HUC 0307010103 and the drainage to Kingswood Branch are located entirely within Athens-Clarke County.

The stream segment of concern in this TMDL implementation plan is Kingswood Branch from its headwaters to the Middle Oconee River

Kingswood Branch is listed on the Section 303(d) list as a segment not supporting its designated use for fishing, based on pH. The drainage area of the stream consists mostly of the single-family subdivision of Kingswood, an apartment complex, and a relatively new area of townhouses. In the upper part of the basin comprises a commercial strip along the Atlanta Highway. The mixture of stores is typical of a suburban shopping area, including a large department store, grocery store, and miscellaneous shops. None of these establishments is suspected to generate unusual acid runoff or discharges. There is also a large cemetery on the south side of the Atlanta Highway that drains to Kingswood Branch. Because of its unique situation, Kingswood Branch is being treated with a separate TMDL implementation plan.

The pollutant of concern is pH (acidity). (An implementation plan for fecal coliform in the stream was prepared in 2001.) The stream was listed on the Georgia 303(d) list of impaired water bodies after sampling conducted by EPD in 1999 showed three violations of the State pH standard. A TMDL was prepared for pH for Kingswood Branch by the U.S.E.P.A. in February, 2002. It did not assign a loading factor, but prescribed all future discharges to the stream to meet water quality standards (pH 6.0 to 8.5). The TMDL document recommended further investigation to determine the potential sources of excess acidity.

Land use in the drainage of Kingswood Branch is predominantly residential and commercial. There are no industries, and no known agricultural or commercial operations that appear to be related to the pH violations. The Upper Oconee Watershed Network, a volunteer group, has sampled water quality on Kingswood Branch several times. There are believed to be known sources of fecal coliform, but no known sources of acid. The Northeast Georgia RDC performed a brief windshield survey of the drainage in 2003 and could find no apparent source of excess acidity. Normal operations of commercial businesses, residential activities, and cemeteries were not deemed likely contributors of pH problems.

Input from these and other stakeholders indicated the following information about the watershed:

- Stakeholders have speculated that construction activities during the sampling period of 1999 might have temporarily altered the pH of Kingswood Branch, but no evidence has been brought forward.

## **Implementation**

The plan identifies the following steps achieving the target of pH between 6.0 and 8.4:

- Multiple samples of pH in Kingswood Branch to confirm the pH violation.
- Detailed measurement of pH along the entire length of Kingswood Branch and its tributaries, using more and more localized sampling to pinpoint the source or sources of acidity.
- Specific steps, to be determined, related to each identified source, taken to reduce or eliminate the pollutant discharges.

Oconee River Basin  
TMDL Implementation Plan  
Middle Oconee River Watershed  
HUC 0307010103

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

**STREAM APPROACH**

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. With input from appropriate stakeholder groups, a TMDL Implementation Plan has been developed for a cluster of impaired waterbodies and the corresponding pollutant(s). The following impaired waterbodies are located in the same sub-basin identified by a HUC10 code (Figure 1).

**This portion of the Implementation Plan addresses individual waterbodies and the corresponding pollutant sources, stakeholders, education/outreach activities, and potential funding sources.** In addition, the Plan describes (a) regulatory and voluntary practices/control actions (*management measures*) to reduce target pollutants, (b) milestone schedules to show the development of the management measures on reducing target pollutants (*measurable milestones*), and (c) a monitoring plan to determine the efficiency of the management measures and measurable. 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.

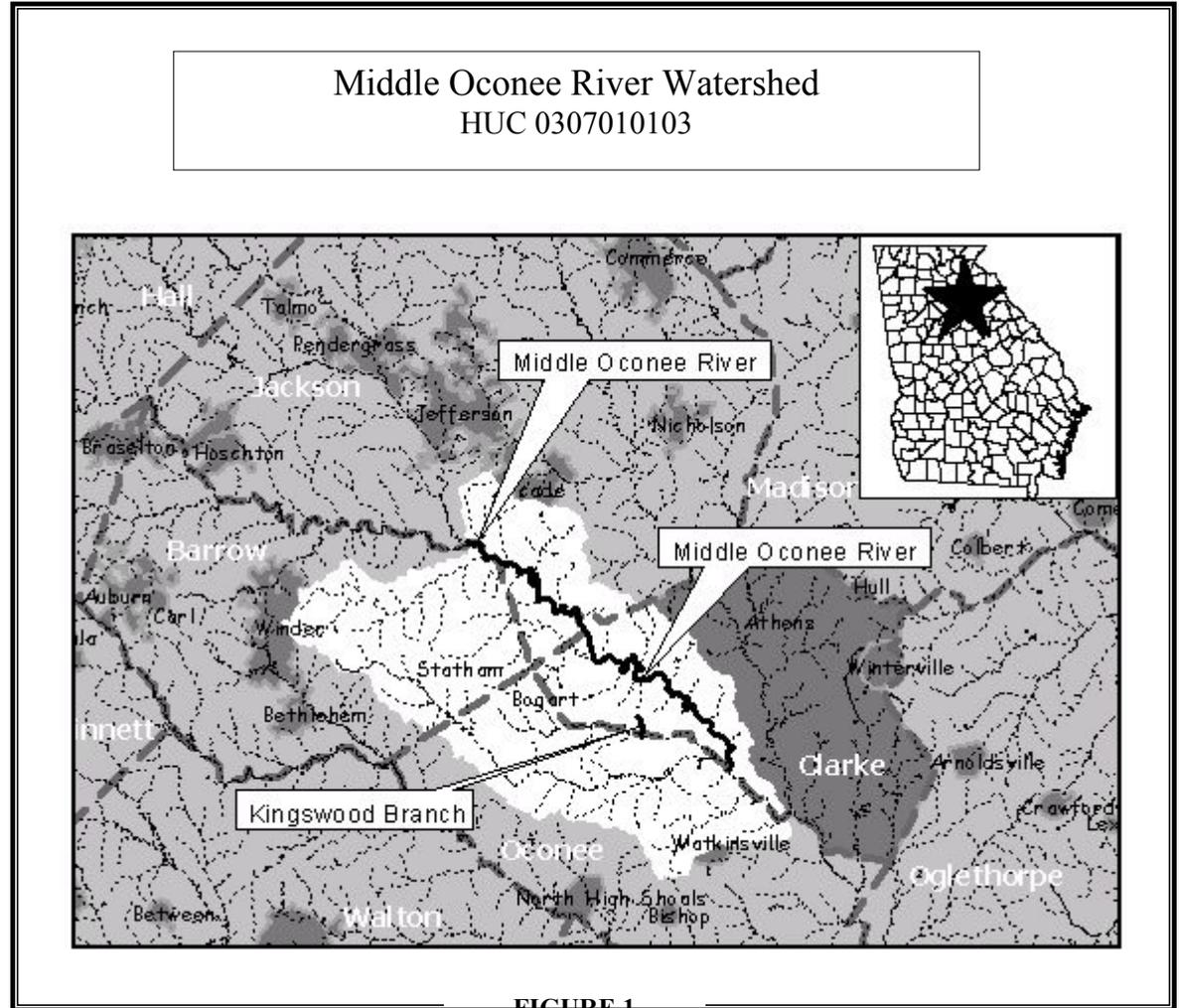


FIGURE 1

Impaired Waterbody*	Location	Impairment
1. Kingswood Branch	Tributary to McNutt Creek, Athens	pH

\*These Waterbody Numbers are referenced throughout the implementation plan.

# KINGSWOOD BRANCH

NAME	LOCATION	MILES/AREA IMPACTED	CLASSIFICATION	PARTIALLY SUPPORTING/ NON SUPPORTING (PS/NS)
<b>Kingswood Branch</b>	Tributary to McNutt Creek, Athens	5	Fishing	Not Supporting
PRIMARY COUNTY	SECONDARY COUNTY	SECOND RDC	SOURCE (POINT/NON-POINT)	
Clarke			Nonpoint (Urban Runoff)	
POLLUTANTS	WATER QUALITY STANDARDS	REQUIRED REDUCTION	TMDL ID #	DATE TMDL ESTABLISHED
pH	6.5 to 8.5 Standard Units	Not listed in TMDL		February 2002

## SIGNIFICANT STAKEHOLDERS

Name/Organization	Address	City	State	Zip	Phone	E-mail
Gary Duck, David Bloyer / Athens-Clarke Co. Unified Government	P.O. Box 1868	Athens	GA	30603	(706)613-3470	gduck@co.clarke.ga.us
Melanie Ruhlman / Upper Oconee Watershed Network	P.O. Box 531	Athens	GA	30603		

## EDUCATION/OUTREACH ACTIVITIES

Responsible Organization or Entity	Description	Target Audience	Anticipated Dates (MM/YY)

## POLLUTANT SOURCES

Pollutant	Source	Description of Contribution to Impairment
pH	Nonpoint Urban	The sources, if any persist in the drainage basin, are unknown.

**MANAGEMENT MEASURES, RESPONSIBLE PARTIES, AND MEASURABLE MILESTONES**

<b>Management Measure</b>	<b>Responsible Government, Organization or Entity</b>	<b>Description</b>	<b>Enacted/ Projected Date</b>	<b>Status</b> <small>(In-progress, Planning, Enforced)</small>	<b>Regulatory/ Voluntary</b>
Stream sampling	Athens-Clarke County	pH sampling of the stream to identify the sources of acidity.	2004	Planned	Voluntary

<b>Pollutant(s) Affected</b>	<b>Sources of Pollutant(s)</b>	<b>Anticipated or Past Effectiveness</b>
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<b>Measurable Milestones</b>	<b>Schedule</b>		<b>Comments</b>
	<b>Start</b>	<b>End</b>	
The stream will be sampled repeatedly at several locations to verify the problem with low pH and identify the sources by narrowing their geographic locations.	Jan 2004	Dec 2004	Although there are reported fecal coliform sources in the drainage, no obviously suspicious sources for pH problems were found in the drainage during a windshield survey performed in 2003, and no known sources are reported by stakeholders.

<b>Management Measure</b>	<b>Responsible Government, Organization or Entity</b>	<b>Description</b>	<b>Enacted/ Projected Date</b>	<b>Status</b> <small>(In-progress, Planning, Enforced)</small>	<b>Regulatory/ Voluntary</b>
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<b>Measurable Milestones</b>	<b>Schedule</b>		<b>Comments</b>		
	<b>Start</b>	<b>End</b>			

**POTENTIAL FUNDING SOURCES**

Source	Responsible Authority	Status	Anticipated Funding Amount
Local government funds	Athens-Clarke County	Planned	\$500

**MONITORING PLAN**

Organization	Pollutants	Purpose/Description	Time Frame		Status: (Previous, Current, Proposed)
			Start	End	
Athens-Clarke County	pH	pH sampling on Kingswood Branch and its tributaries to confirm pH problems and localize sources	Jan 2004	Dec 2004	Proposed

COMMENTS:

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**Environmental Protection Division of the Department of Natural Resources,  
State of Georgia.**