

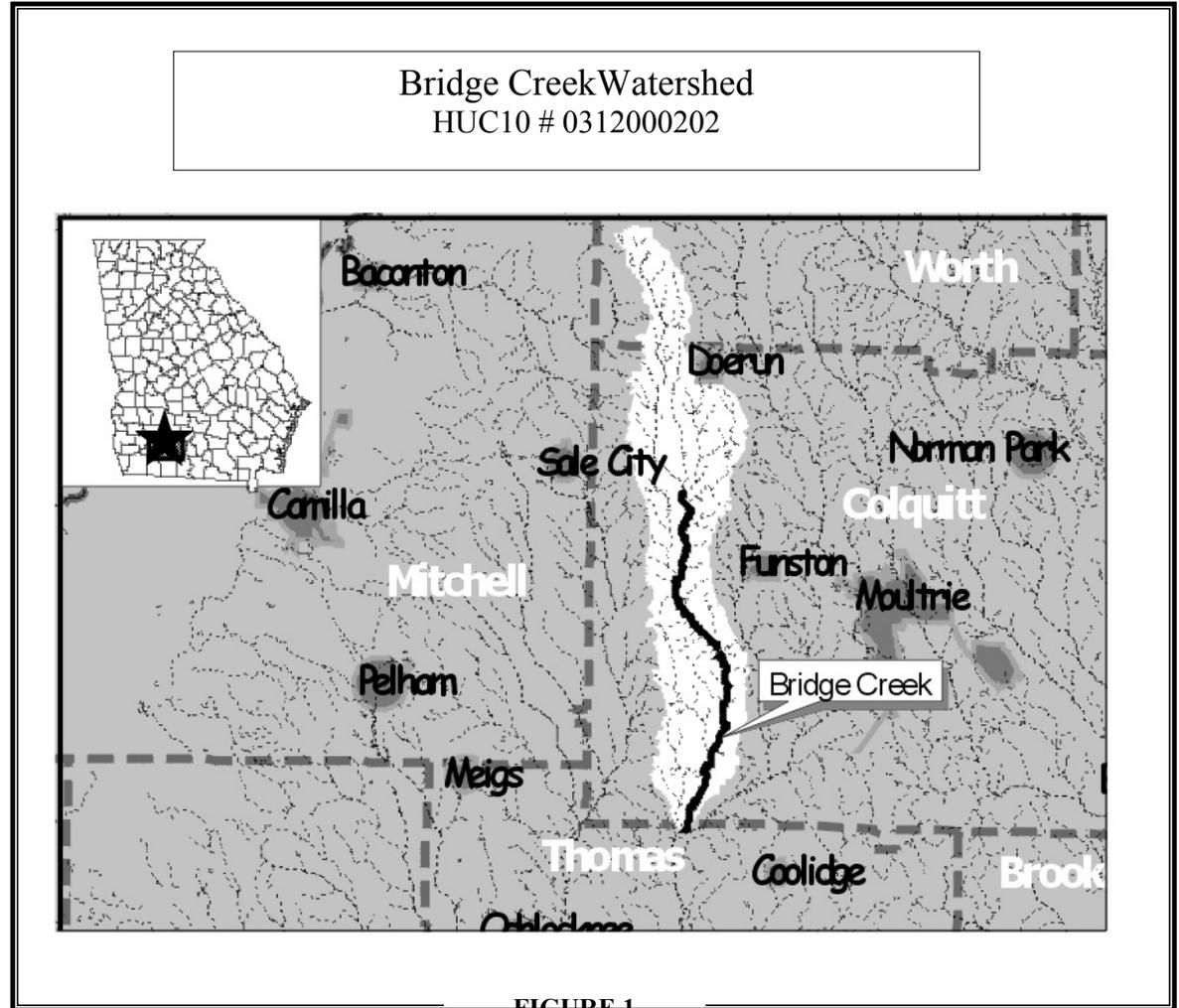
**STATE OF GEORGIA**  
**TMDL IMPLEMENTATION PLAN**  
**WATERSHED APPROACH**  
**OCHLOCKONEE RIVER BASIN**

**Local Watershed Governments**

- Colquitt County
- City of Moultrie
- Other \_\_\_\_\_

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. **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. Bridge Creek	Mill Cr. to upstream Ga. Hwy. 111 near Moultrie	Dissolved Oxygen, Fecal Coliform Bacteria
2. Bridge Creek	Upstream Ga. Hwy. 111 near Moultrie to Ochlockonee River	Dissolved Oxygen

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

# Action Plan for Bridge Creek Watershed

POLLUTANT:	SOURCE:	EFFECT:	WHAT CAN I DO?	
			At Home: Community, School	At Work: Business, Government
<input checked="" type="checkbox"/> Dissolved Oxygen (DO)	<input type="checkbox"/> Industrial	<input checked="" type="checkbox"/> Habitat	Do not let water and/or chemicals run off your property.	Monitor the quality of water above and below your property.
<input checked="" type="checkbox"/> Fecal Coliform (FC)	<input type="checkbox"/> Urban	<input type="checkbox"/> Recreation	Do not dump trash, appliances, or dead animals off the bridges.	Install/maintain buffers to protect the wetlands.
<input type="checkbox"/> Sediment	<input type="checkbox"/> Agriculture	<input type="checkbox"/> Drinking Water	Participate in river educational Events.	Follow the Georgia Best Management Practices in land management.
<input type="checkbox"/> Metals	<input type="checkbox"/> Forestry	<input type="checkbox"/> Aesthetics	Use the Georgia Best Management Practices in land management	Support educational activities in your community.
<input type="checkbox"/> Fish Consumption Guidelines (FCG)	<input type="checkbox"/> Residential	<input type="checkbox"/> Other (Please List)		
<input type="checkbox"/> Other (Please List)	<input checked="" type="checkbox"/> Other (Please List) Natural	Fishing		Be sure that your employees and contractors follow the BMPs.

## INFORMATION/EDUCATION/OUTREACH ACTIVITIES

An education/outreach component will be used to enhance public understanding of and participation in implementing the TMDL Implementation Plan.

List of all previous and planned information/education/outreach activities.

Entity	Description	Impacted Waterbodies*	Target Audience	Anticipated Dates (MM/YY)
Georgia EPD	Adopt-A-Stream	Entire Basin	All Residents	11/02
Friends of the Ochlockonee River	No-profit organization serving the stakeholders	Entire Basin	All Residents	11/02
Ga Forestry Commission	Field Day for Land Owners to demonstrate Georgia BMPs	Entire Basin	All Landowners	02 or 03/03
Thomas University	Develop and Implement educational materials	Entire Basin	All School Children & TV audiences	Pre-proposal: 12/02

## STAKEHOLDERS

EPD encourages public involvement and the active participation of stakeholders in the process of improving water quality. Stakeholders can provide valuable information and data regarding their community and the impaired water bodies and can provide insight and/or implement management measures.

List of local governments, agricultural organizations or significant landholders, commercial forestry organizations, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

Name/Organization	Address	City	State	Zip	Phone	E-Mail
Georgia EPD	4220 Inter. Pkwy Suite 101	Atlanta	GA	30254	404.675.1614	<a href="mailto:Ted_Mikalson@mail.dnr.state.ga.us">Ted_Mikalson@mail.dnr.state.ga.us</a>
Colquitt County	P.O. Box 517	Moultrie	GA	31776	229.985.4029	
Worth County	201 N. Main St.	Sylvester	GA	31791	229.776.8200	
City of Moultrie	P.O. Box 3368	Moultrie	GA	31776	229.985.1974	
City of Doerun	P.O. Box 37	Doerun	GA	31744	229.782.5444	
The Nature Conservancy	18 North Main St.	Moultrie	GA	31768	229.958.8117	<a href="http://www.Georgiaconservancy.org">www.Georgiaconservancy.org</a>
Tall Timbers Research Station	13093 Henry Beadel Dr.	Tallahassee	FL	32312	850.893.4153	<a href="http://www.talltimbers.org">www.talltimbers.org</a>
International Paper	719 Southlands Rd.	Bainbridge	GA	31717	229.246.3642	<a href="mailto:Rebecca.winn@paper.com">Rebecca.winn@paper.com</a>
Friends of the Ochlockonee	1501 Millpond Rd.	Thomasville	GA	31792	229.226.1621	
Ga. Forestry Commission	3561 Highway 112	Camilla	GA	31730	229.522.3580	<a href="mailto:gfindley@gfc.state.ga.us">gfindley@gfc.state.ga.us</a>
Southwest Georgia RDC	30 West Broad St.	Camilla	GA	31730	229.522.3552	<a href="mailto:amacdonald@swgrdc.org">amacdonald@swgrdc.org</a>
USDA-NRCS	350 E. ByPass NE	Moultrie	GA	31788	229.985.5399	<a href="mailto:Randall.Odum@gamoultrie.fsa.usda.gov">Randall.Odum@gamoultrie.fsa.usda.gov</a>
Richard Royal	P.O. Box 607	Camilla	GA	31730	229.336.7339	
Roger King	2 12 <sup>th</sup> Avenue S	Moultrie	GA	31778	229.985.0034	
Johnny Smoak	1628 Evergreen Rd.	Sylvester	GA	31791	Unlisted	<a href="mailto:jmoak@peanut.org">jmoak@peanut.org</a>
Sherry Chambers	406 W. King St.	Sylvester	GA	31791	229.776.8625	<a href="mailto:schambers@peanut.org">schambers@peanut.org</a>
Steven Cox	8296 Ga Highway 133 S	Doerun	GA	31744	229.776.2926	
Misty Nemeth	955 Circle Road	Moultrie	GA	31768		
Rhonda Walters	P.O. Box 172	Doerun	GA	31744	229.782.5223	
Susan Bannister	P.O. Box 1397	Thomasville	GA	31799	229.227.7000	<a href="mailto:SusanB@Thomasville.org">SusanB@Thomasville.org</a>
Worth County Health Dept.	1012 W. Franklin St.	Sylvester	GA	31791	229.777.2150	
Worth County Schools	504 E. Price St.	Sylvester	GA	31791	229.777.8600	
Sylvester Public Library	205 E. Pope St.	Sylvester	GA	31791	229.776.2096	
Randy Bannister	P.O. Box 517	Moultrie	GA	31776	229.985.4459	
Colquitt County Schools	P.O. Box 2708	Moultrie	GA	31776	229.890.6200	<a href="http://www.colquitt.k12.go.us">www.colquitt.k12.go.us</a>
Whelchel, Carlton, & Walker	48 Cherokee Rd.	Moultrie	GA	31768		
Fallin and McIntosh	39 N. Main St.	Moultrie	GA	31776	229.985.5881	
Beadles Lumber Company	Box 3457	Moultrie	GA	31776	229.985.6996	

## WATER BODIES/STREAMS COVERED IN THIS PLAN:

These impaired streams are located in the same sub-basin identified by a HUC10 code. Most of the information contained in this section comes from the 303(d) list and has been completed by employees of the EPD Water Protection Branch. Data that placed stream on 303(d) list will be provided upon request

NAME	LOCATION	MILES/AREA IMPACTED	CLASSIFICATION	PARTIALLY SUPPORTING/ NON SUPPORTING (PS/NS)
Bridge Creek	Mill Cr. to upstream Ga. Hwy. 111 near Moultrie	7	Fishing	NS
PRIMARY COUNTY	SECONDARY COUNTY	SECOND RDC	SOURCE (POINT/NON-POINT)	

Colquitt

Nonpoint

<b>POLLUTANTS</b>	<b>WATER QUALITY STANDARDS</b>	<b>REQUIRED REDUCTION</b>
Dissolved Oxygen	5mg/l (daily average) 4 mg/l (minimum) Natural DO lower than state standard. Calculated DO 2.66 mg/l.	42% TOC (lb/yr) 42% TN (lb/yr) 42% TP (lb/yr)
Fecal Coliform Bacteria	1,000 per 100 ml (geometric mean Nov-April) 200 per 100 ml (geometric mean May-Oct)	77%

<b>TMDL ID #</b>	<b>DATE TMDL ESTABLISHED</b>
	12/2001
	6/2000

<b>NAME</b>	<b>LOCATION</b>	<b>MILES/AREA IMPACTED</b>	<b>CLASSIFICATION</b>	<b>PARTIALLY SUPPORTING/ NON SUPPORTING (PS/NS)</b>
Bridge Creek	Upstream Ga. Hwy. 111 near Moultrie to Ochlockonee River	10	Fishing	NS

<b>PRIMARY COUNTY</b>	<b>SECONDARY COUNTY</b>	<b>SECOND RDC</b>	<b>SOURCE (POINT/NON-POINT)</b>
Colquitt			Nonpoint

<b>POLLUTANTS</b>	<b>WATER QUALITY STANDARDS</b>	<b>REQUIRED REDUCTION</b>
Dissolved Oxygen	5mg/l (daily average) 4 mg/l (minimum) Natural DO lower than state standard. Calculated target DO 3.29 mg/l.	41% TOC (lb/yr) 41% TN (lb/yr) 41% TP (lb/yr)

<b>TMDL ID #</b>	<b>DATE TMDL ESTABLISHED</b>
	12/2001

## POLLUTANT SOURCES

It is important to recognize the potential source(s) causing water quality impairment. Each source must be controlled to comply with target TMDL/Load Allocations for each pollutant. Included is a description of how the sources contribute to the impairment and the waterbody that is impaired.

List of major nonpoint source categories and sub-categories or individual sources (Urban Runoff, Agriculture, Forestry, Municipal Sewage Treatment Plant )

<b>Pollutant</b>	<b>Sources of Pollutants</b>	<b>Description of Contribution To Impairment</b>	<b>Impacted Waterbodies*</b>
FC	Agriculture Non Point	Runoff (?) Failure to prevent runoff from farming operations from entering the creeks	Bridge Creek
FC	Failing Septic Tanks	Malfunctioning septic tanks causing surface water contamination with bacteria.	Bridge Creek
DO	Agriculture Non Point	Runoff (?) Failure to prevent runoff from farming operations from entering the creeks	Bridge Creek
Low DO	Natural	Stream below critical conditions: High temperatures and low flow contribute to low levels of dissolved oxygen in the stream.	

## MANAGEMENT MEASURES, MEASURABLE MILESTONES AND SCHEDULE

**(i.e. Local codes and ordinances, Erosion and Sedimentation Control, Storm Water Management, Local water resource monitoring)**

The following table lists management measures that have been or will be implemented to achieve water quality standards and the load reductions established in the TMDL. The management measures, including regulatory or voluntary actions or other controls by governments or individuals, specifically apply to the pollutant and the waterbody for which the TMDL was written. A description is provided of how these management measures are/will be accomplished through reliable and effective delivery mechanisms, and how these management measures are/will help achieve the target TMDL. Included is the source of the pollutant, anticipated/past effectiveness

of the management measure (very effective, somewhat effective, not effective), the current status (i.e. enforced, in-progress, planning), and measurable milestones and schedule. Milestones are used to measure progress in attaining water quality standards and to determine whether management measures are being implemented.

<b>Regulation/Ordinance or Management Measure</b>	<b>Responsible Government, Organization or Entity</b>	<b>Description</b>	<b>Enacted/ Projected Date</b>	<b>Status</b>	<b>Regulatory/ Voluntary</b>
Forestry Best Management Practices	GA Forestry Commission GA EPD if enforcement	Protect streamside management zones and maintain canopy during harvesting	Current	In-progress	Voluntary (Violations of "Georgia Water Quality Act" may be pursued)

<b>Pollutant(s) Affected</b>	<b>Sources of Pollutant(s)</b>	<b>Impacted Waterbodies*</b>	<b>Anticipated or Past Effectiveness</b>
DO, FC	nonpoint	Bridge Creek 1 & 2	EPA identifies silviculture as the lowest contribution source of nonpoint pollution

<b>Measurable Milestones</b>	<b>Schedule</b>		<b>Comments</b>
	<b>Start</b>	<b>End</b>	
Increase in concentration of DO Decrease in concentration of FC	01/03	01/05	Education of Land owners & buffer funding requests & adaptive monitoring
Bridge Creek 1- DO > target of 2.66 mg/L FC < 200 gm/100 mL Bridge Creek 2- DO > target of 3.29 mg/L	01/05	01/12	Continued efforts of land owners and mining operations

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/Voluntary
USDA programs applicable to protecting riparian corridors such as the Conservation Reserve Program, Wetlands Reserve Program and Conservation Buffer Initiatives	USDA/NRCS	These programs serve to protect or restore riparian buffers which. These buffers may contain canopies that reduce sunlight penetration, stream warming and reduction of oxygen saturation. The buffers also filter fertilizer and organic wastes from runoff, which may in turn cause excessive algae growth and eventually depressed dissolved oxygen levels. By removing organic wastes, such as manure, the possibility of pathogen introduction is also reduced.	Current	In Progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
FC, DO	Non point	Aucilla R & Olive Ck	

Measurable Milestones	Schedule		Comments
	Start	End	
Increase in concentration of DO Decrease in concentration of FC	01/03	01/05	Education of Land owners & buffer funding requests & adaptive monitoring
Bridge Creek 1- DO > target of 2.66 mg/L FC < 200 gm/100 mL	01/05	01/12	Continued efforts of land owners and mining operations
Bridge Creek 2- DO > target of 3.29 mg/L			

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/Voluntary
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Reduce Dumping off bridges	Colquitt & Worth Counties	Reduce trash and carcasses being dumped into the river tributaries-Education and Enforcement programs	Thomas 10/02 Grady & Mitchell Cty ??	In progress & proposed	Regulatory
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<b>Pollutant(s) Affected</b>	<b>Sources of Pollutant(s)</b>	<b>Impacted Waterbodies*</b>	<b>Anticipated or Past Effectiveness</b>
DO, FC	Oils, greases, carcasses	Bridge Creek 1 & 2	Not effective

<b>Measurable Milestones</b>	<b>Schedule</b>		<b>Comments</b>
	<b>Start</b>	<b>End</b>	
Reduction of trash observed	01/03	01/05	Educational programs, signs. monitoring via photography
Continued reduction of trash observed	01/05	01/12	Continue above actions

<b>Regulation/Ordinance or Management Measure</b>	<b>Responsible Government, Organization or Entity</b>	<b>Description</b>	<b>Enacted/ Projected Date</b>	<b>Status</b>	<b>Regulatory/ Voluntary</b>
Reduce runoff from bridges	Colquitt & Worth Counties	Implement measures to reduce runoff from unimproved and improved county roads	01/05	In planning	Voluntary

<b>Pollutant(s) Affected</b>	<b>Sources of Pollutant(s)</b>	<b>Impacted Waterbodies*</b>	<b>Anticipated or Past Effectiveness</b>
DO, FC	Runoff from roads	Bridge Creeks 1 & 2	Unknown

<b>Measurable Milestones</b>	<b>Schedule</b>		<b>Comments</b>
	<b>Start</b>	<b>End</b>	
Experimental designs started Begin monitoring test sites 01/05	01/05	01/08	Application EPA Wetlands protection grant -pre-proposal 12/02

<b>Regulation/Ordinance or Management Measure</b>	<b>Responsible Government, Organization or Entity</b>	<b>Description</b>	<b>Enacted/ Projected Date</b>	<b>Status</b>	<b>Regulatory/ Voluntary</b>
Georgia Planning Act	GA DNR, Local governments	To help prevent groundwater contamination, the Georgia Planning Act identifies groundwater recharge areas as critical natural resources and directs steps to help prevent contamination of groundwater. DNR has established minimum criteria for protection of groundwater recharge areas. DNR's minimum standards are to be used in developing and implementing local comprehensive plans. Local governments are directed to incorporate provisions for protection of groundwater recharge areas in local comprehensive plans and to adopt protective ordinances at least as stringent as the state standards developed by DNR. This protection of groundwater recharge should also have a positive although indirect impact on surface water quality.	ASAP	Planning	Regulatory

<b>Pollutant(s) Affected</b>	<b>Sources of Pollutant(s)</b>	<b>Impacted Waterbodies*</b>	<b>Anticipated or Past Effectiveness</b>
FC, DO	Runoff & over well pumping	All streams in the basin	Unknown

<b>Measurable Milestones</b>	<b>Schedule</b>		<b>Comments</b>
	<b>Start</b>	<b>End</b>	
Regulation are enforced	ASAP		

<b>Regulation/Ordinance or Management Measure</b>	<b>Responsible Government, Organization or Entity</b>	<b>Description</b>	<b>Enacted/ Projected Date</b>	<b>Status</b>	<b>Regulatory/ Voluntary</b>
Adaptive monitoring and watershed assesment	Thomas University	Collecting samples upstream from established sites to isolate and identify sources of pollution. EPD will contract with USGS to sample sites initially sampled in 1998. They will employ revised protocols to sample sites to avoid the impacts of extreme low flow or ponding which may have influenced DO samples collected in 1998 and the subsequent assessments for listing on the 303(d).	01/03	In planning	Voluntary

<b>Pollutant(s) Affected</b>	<b>Sources of Pollutant(s)</b>	<b>Impacted Waterbodies*</b>	<b>Anticipated or Past Effectiveness</b>
DO, FC	To be determined	Entire basin	Anticipated- very effective

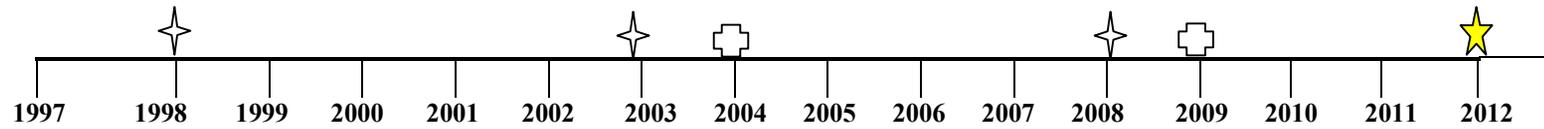
<b>Measurable Milestones</b>	<b>Schedule</b>		<b>Comments</b>
	<b>Start</b>	<b>End</b>	
Adaptive monitoring 1 <sup>st</sup> cycle completed	01/03	01/04	Individuals, local govts, and EPD will be notified of the results
Decrease in concentration of FC Increase in concentration of DO	01/04	01/12	

**POTENTIAL FUNDING SOURCES** The identification and discussion of dedicated funding is important in determining the economic feasibility of the above-mentioned management measures

<b>Funding Source</b>	<b>Responsible Authority</b>	<b>Status</b>	<b>Anticipated Funding Amount</b>	<b>Impacted Waterbodies*</b>
Georgia EPD	Thomas University	In Planning	??	Entire basin
Archebold hospital Foundation	Friends of the Ochlockonee River	In Planning	??	Entire basin
EPA Wetlands Protection Program Grant	Thomas University	Preliminary Proposal Due on 02/12/02	To be determined	Entire basin
EPA 319 Grant	Thomas University & Local Govts	In Planning	To be Determined	Entire Basin
Williams Family Foundation	Friends of the Ochlockonee River	In Planning	To be Determined	Entire Basin
Woodruff Foundation	Thomas University To develop educational Materials	In Planning	To Be Determined	Entire Basin

## PROJECTED ATTAINMENT DATE

The projected date to attain and maintain water quality standards in this watershed is 10 years from acceptance of the TMDL Implementation Plan by EPD.



EPD Monitoring   
 Evaluate TMDL & Attainment Date   
 Project Attainment 

## MONITORING PLAN

The purpose of this monitoring plan is to determine the effectiveness of the target TMDL and the management measures being implemented to meet water quality standards. List of previous, current or planned/proposed sampling activities or other surveys. (Monitoring data that placed stream on 303(d) list will be provided if requested.)

Name Of Regulation / Ordinance Or Management Measure	Organization	Impacted Waterbodies*	Pollutants	Purpose/Description	Time Frame		Status (Previous, Current, Proposed)
					Start	End	
Initial monitoring	USGS/EPD	Entire Basin	DO & FC	To establish TMDLs	01/98	12/98	Previous
Selective Monitoring	Thomas University	Entire Basin	DO & FC	To develop monitoring Protocols And establish new monitoring sited	09/02	12/03	Current
EPD Monitoring	Thomas University	Established Sites	DO & FC/EC	To monitor the effectiveness of the above plans	01/03	01/04	Proposed
Adaptive Monitoring	Thomas University	303b streams	DO,FC, Turbidity Nutrients, ets	Identify and locate sources of pollutants in each identified stream	01/03	??	Proposed
Individual Industries	Industries	Various	DO, FC, Turbidity Nutrients	Monitor the affected steam above and below the industry for water quality	01/03	??	Voluntary program

## CRITERIA TO DETERMINE WHETHER SUBSTANTIAL PROGRESS IS BEING MADE

The following set of criteria will be used to determine whether any substantial progress is being made towards reducing pollutants in impaired waterbodies and attaining water quality standards. Discussion on each criteria is recorded in the space provided. Additional relevant criteria are presented in comments.

Percent of concentration or load change (monitoring program) Increasing trend of DO over a period of one year

If monitoring results show that it is unlikely that the TMDL will be adequate to meet water quality standards, revision of the TMDL may be necessary.

- Categorical change in classification of the stream (delisting the stream is the goal)

DO in Bridge Creek 1 exceeds target of 2.66 mg/L & FC is less than state standard.

DO in E. Bridge Creek 2 exceeds the target of 3.29mg/L.

- Regulatory controls or activities installed (ordinances, laws)

Antidumping ordinances enacted by all counties, (similar to those in Thomas County) BMPs for agriculture, forestry, and land disturbing activities integrated into all county ordinances,

- Best management practices installed (agricultural, forestry, urban)

Forestry BMPs being followed – data from courtesy visits of the district forester,

Agricultural BMPs being followed- data from stream buffer initiative and NRCS data; Urban BMPs being followed- increased DO downstream from cities

### COMMENTS

Before definitive actions can be taken, specific, offenders, land owners, and industries must be identified. The proposed adaptive monitoring procedures will aid in identifying the specific sources of pollutants in streams that have non point pollution sources. With this knowledge, local and state governments will be able to enact or enforce existing statutes to correct the problem..

Prepared By:	<u>Dan Sanford</u>
Agency:	<u>Thomas University</u>
Address:	<u>1501 Millpond Rd.</u>
City:	<u>Thomasville</u> ST: <u>GA</u> ZIP: <u>31792</u>
E-mail:	

The preparation of this report was financed in part through a grant from the U.S. Environmental Protection Agency under the provisions of Section 106 of the Federal Water Pollution Control Act, as amended.

Date Submitted to EPD: 12/19/02 as per EPD modifications

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

**TOGETHER WE CAN MAKE A DIFFERENCE!**

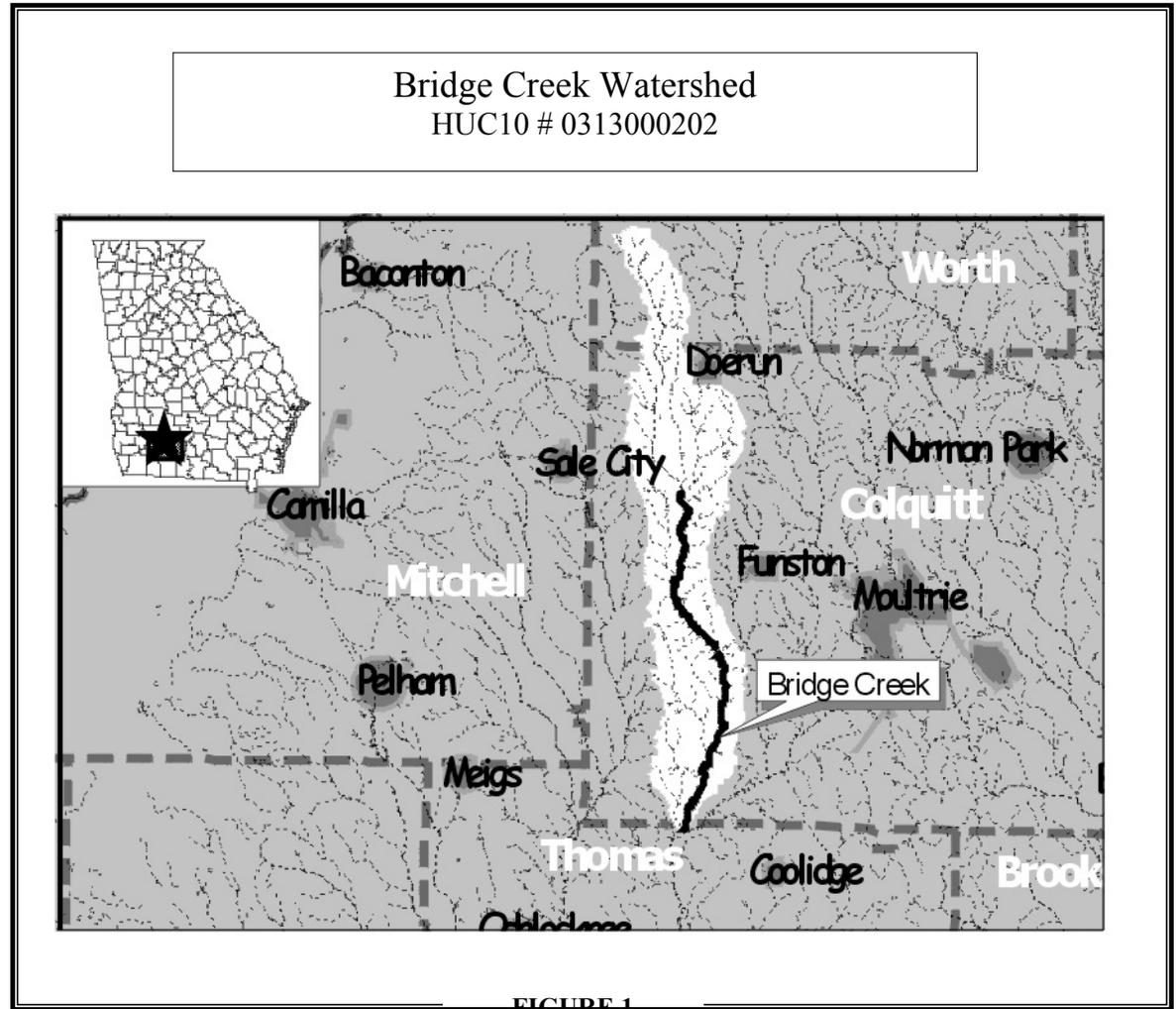
ATTACHMENT A:  
STREAM APPROACH

**STATE OF GEORGIA  
TMDL IMPLEMENTATION PLAN  
OCHLOCKONEE RIVER BASIN**

**STREAM APPROACH**

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**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.



Impaired Waterbody*	Location	Impairment
1. Bridge Creek	Mill Cr. to upstream Ga. Hwy. 111 near Moultrie	Dissolved Oxygen, Fecal Coliform Bacteria
2. Bridge Creek	Upstream Ga. Hwy. 111 near Moultrie to Ochlockonee River	Dissolved Oxygen

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

Ochlockonee River Basin  
TMDL Implementation Plan  
Bridge Creek Watershed  
HUC 10 0312000203

**Bridge Creek**

<b>NAME</b>	<b>LOCATION</b>	<b>MILES/AREA IMPACTED</b>	<b>CLASSIFICATION</b>	<b>PARTIALLY SUPPORTING/ NON SUPPORTING (PS/NS)</b>
Bridge Creek	Mill Cr. to upstream Ga. Hwy. 111 near Moultrie	7	Fishing	NS
<b>PRIMARY COUNTY</b>	<b>SECONDARY COUNTY</b>	<b>SECOND RDC</b>	<b>SOURCE (POINT/NON-POINT)</b>	
Colquitt			Nonpoint	

<b>POLLUTANTS</b>	<b>WATER QUALITY STANDARDS</b>	<b>REQUIRED REDUCTION</b>
Dissolved Oxygen	5mg/l (daily average) 4 mg/l (minimum) Natural DO lower than state standard. Calculated DO 2.66 mg/l.	42% TOC (lb/yr) 42% TN (lb/yr) 42% TP (lb/yr)
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<b>TMDL ID #</b>	<b>DATE TMDL ESTABLISHED</b>
	12/2001
	6/2000

Ochlockonee River Basin  
TMDL Implementation Plan  
Bridge Creek Watershed  
HUC 10 0312000203

**SIGNIFICANT STAKEHOLDERS**

<b>Name/Organization</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>	<b>Phone</b>	<b>E-Mail</b>
Georgia EPD	4220 Inter. Pkwy Suite 101	Atlanta	GA	30254	404.675.1614	<a href="mailto:Ted_Mikalson@mail.dnr.state.ga.us">Ted_Mikalson@mail.dnr.state.ga.us</a>
Colquitt County	P.O. Box 517	Moultrie	GA	31776	229.985.4029	
Worth County	201 N. Main St.	Sylvester	GA	31791	229.776.8200	
City of Moultrie	P.O. Box 3368	Moultrie	GA	31776	229.985.1974	
City of Doerun	P.O. Box 37	Doerun	GA	31744	229.782.5444	
The Nature Conservancy	18 North Main St.	Moultrie	GA	31768	229.958.8117	<a href="http://www.Georgiaconservancy.org">www.Georgiaconservancy.org</a>
Tall Timbers Research Station	13093 Henry Beadel Dr.	Tallahassee	FL	32312	850.893.4153	<a href="http://www.talltimbers.org">www.talltimbers.org</a>
International Paper	719 Southlands Rd.	Bainbridge	GA	31717	229.246.3642	<a href="mailto:Rebecca.winn@paper.com">Rebecca.winn@paper.com</a>
Friends of the Ochlockonee	1501 Millpond Rd.	Thomasville	GA	31792	229.226.1621	
Ga. Forestry Commission	3561 Highway 112	Camilla	GA	31730	229.522.3580	<a href="mailto:gfindley@gfc.state.ga.us">gfindley@gfc.state.ga.us</a>
Southwest Georgia RDC	30 West Broad St.	Camilla	GA	31730	229.522.3552	<a href="mailto:amacdonald@swgrdc.org">amacdonald@swgrdc.org</a>
USDA-NRCS	350 E. ByPass NE	Moultrie	GA	31788	229.985.5399	<a href="mailto:Randall.Odum@gamoultrie.fsa.usda.gov">Randall.Odum@gamoultrie.fsa.usda.gov</a>
Richard Royal	P.O. Box 607	Camilla	GA	31730	229.336.7339	
Roger King	2 12 <sup>th</sup> Avenue S	Moultrie	GA	31778	229.985.0034	
Johnny Smoak	1628 Evergreen Rd.	Sylvester	GA	31791	Unlisted	<a href="mailto:jmoak@peanut.org">jmoak@peanut.org</a>
Sherry Chambers	406 W. King St.	Sylvester	GA	31791	229.776.8625	<a href="mailto:schambers@peanut.org">schambers@peanut.org</a>
Steven Cox	8296 Ga Highway 133 S	Doerun	GA	31744	229.776.2926	
Misty Nemeth	955 Circle Road	Moultrie	GA	31768		
Rhonda Walters	P.O. Box 172	Doerun	GA	31744	229.782.5223	
Susan Bannister	P.O. Box 1397	Thomasville	GA	31799	229.227.7000	<a href="mailto:SusanB@Thomasville.org">SusanB@Thomasville.org</a>
Worth County Health Dept.	1012 W. Franklin St.	Sylvester	GA	31791	229.777.2150	
Worth County Schools	504 E. Price St.	Sylvester	GA	31791	229.777.8600	
Sylvester Public Library	205 E. Pope St.	Sylvester	GA	31791	229.776.2096	
Randy Bannister	P.O. Box 517	Moultrie	GA	31776	229.985.4459	
Colquitt County Schools	P.O. Box 2708	Moultrie	GA	31776	229.890.6200	<a href="http://www.colquitt.k12.go.us">www.colquitt.k12.go.us</a>
Whelchel, Carlton, & Walker	48 Cherokee Rd.	Moultrie	GA	31768		
Fallin and McIntosh	39 N. Main St.	Moultrie	GA	31776	229.985.5881	
Beadles Lumber Company	Box 3457	Moultrie	GA	31776	229.985.6996	

**EDUCATION/OUTREACH ACTIVITIES**

<b>Responsible Organization Or Entity</b>	<b>Description</b>	<b>Impacted Waterbodies*</b>	<b>Target Audience</b>	<b>Anticipated Dates (MM/YY)</b>
Georgia EPD	Adopt-A-Stream	Entire Basin	All Residents	11/02
Friends of the Ochlockonee River	No-profit organization serving the stakeholders	Entire Basin	All Residents	11/02
Ga Forestry Commission	Field Day for Land Owners to demonstrate Georgia BMPs	Entire Basin	All Landowners	02 or 03/03
Thomas University	Develop and Implement educational materials	Entire Basin	All School Children & TV audiences	Pre-proposal: 12/02

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**POLLUTANT SOURCES**

<b>Pollutant</b>	<b>Sources of Pollutants</b>	<b>Description of Contribution To Impairment</b>	<b>Impacted Waterbodies*</b>
FC	Agriculture Non Point	Runoff (?) Failure to prevent runoff from farming operations from entering the creeks	Bridge Creek
FC	Failing Septic Tanks	Malfunctioning septic tanks causing surface water contamination with bacteria.	Bridge Creek
DO	Agriculture Non Point	Runoff (?) Failure to prevent runoff from farming operations from entering the creeks	Bridge Creek
Low DO	Natural	Stream below critical conditions: High temperatures and low flow contribute to low levels of dissolved oxygen in the stream.	Bridge Creek

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

<b>Regulation/Ordinance or Management Measure</b>	<b>Responsible Government, Organization or Entity</b>	<b>Description</b>	<b>Enacted/ Projected Date</b>	<b>Status</b>	<b>Regulatory/ Voluntary</b>
Forestry Best Management Practices	GA Forestry Commission GA EPD if enforcement	Protect streamside management zones and maintain canopy during harvesting	Current	In-progress	Voluntary (Violations of "Georgia Water Quality Act" may be pursued)

<b>Pollutant(s) Affected</b>	<b>Sources of Pollutant(s)</b>	<b>Impacted Waterbodies*</b>	<b>Anticipated or Past Effectiveness</b>
DO, FC	nonpoint	Bridge Creek 1	EPA identifies silviculture as the lowest contribution source of nonpoint pollution

<b>Measurable Milestones</b>	<b>Schedule</b>		<b>Comments</b>
	<b>Start</b>	<b>End</b>	
Increase in concentration of DO Decrease in concentration of FC	01/03	01/05	Education of Land owners & buffer funding requests & adaptive monitoring
Bridge Creek 1- DO > target of 2.66 mg/L FC < 200 gm/100 mL	01/05	01/12	Continued efforts of land owners and mining operations

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Measure or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
USDA programs applicable to protecting riparian corridors such as the Conservation Reserve Program, Wetlands Reserve Program and Conservation Buffer Initiatives	USDA/NRCS	These programs serve to protect or restore riparian buffers which. These buffers may contain canopies that reduce sunlight penetration, stream warming and reduction of oxygen saturation. The buffers also filter fertilizer and organic wastes from runoff, which may in turn cause excessive algae growth and eventually depressed dissolved oxygen levels. By removing organic wastes, such as manure, the possibility of pathogen introduction is also reduced.	Current	In Progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
FC, DO	Non point	Bridge Creek	

Measurable Milestones	Schedule		Comments
	Start	End	
Increase in concentration of DO Decrease in concentration of FC	01/03	01/05	Education of Land owners & buffer funding requests & adaptive monitoring
Bridge Creek 1- DO > target of 2.66 mg/L  FC < 200 gm/100 mL	01/05	01/12	Continued efforts of land owners and mining operations
Bridge Creek 2- DO > target of 3.29 mg/L			

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<b>Regulation/Ordinance or Management Measure</b>	<b>Responsible Government, Organization or Entity</b>	<b>Description</b>	<b>Enacted/ Projected Date</b>	<b>Status</b>	<b>Regulatory/ Voluntary</b>
Reduce Dumping off bridges	Colquitt & Worth Counties	Reduce trash and carcasses being dumped into the river tributaries-Education and Enforcement programs	Thomas 10/02 Grady & Mitchell Cty ??	In progress proposed	Regulatory

<b>Pollutant(s) Affected</b>	<b>Sources of Pollutant(s)</b>	<b>Impacted Waterbodies*</b>	<b>Anticipated or Past Effectiveness</b>
DO, FC	Oils, greases, carcasses	Bridge Creek 1	Not effective

<b>Measurable Milestones</b>	<b>Schedule</b>		<b>Comments</b>
	<b>Start</b>	<b>End</b>	
Reduction in the amount of trash observed	01/03	01/05	Educational programs, signs. monitoring via photography
Continued reduction of trash observed	01/05	01/12	Continue above actions

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Reduce runoff from bridges	Colquitt & Worth Counties	Implement measures to reduce runoff from unimproved and improved county roads	01/05	In planning	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
DO, FC	Runoff from roads	Bridge Creeks 1	Unknown

Measurable Milestones	Schedule		Comments
	Start	End	
Experimental designs started Begin monitoring test sites 01/05	01/05	01/08	Application EPA Wetlands protection grant –pre-proposal 12/02

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Georgia Planning Act	GA DNR, Local governments	To help prevent groundwater contamination, the Georgia Planning Act identifies groundwater recharge areas as critical natural resources and directs steps to help prevent contamination of groundwater. DNR has established minimum criteria for protection of groundwater recharge areas. DNR's minimum standards are to be used in developing and implementing local comprehensive plans. Local governments are directed to incorporate provisions for protection of groundwater recharge areas in local comprehensive plans and to adopt protective ordinances at least as stringent as the state standards developed by DNR. This protection of groundwater recharge should also have a positive although indirect impact on surface water quality.	ASAP	Planning	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
FC, DO	Runoff & over well pumping	All streams in the basin	Unknown

Measurable Milestones	Schedule		Comments
	Start	End	
Regulation are enforced	ASAP		

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Adaptive monitoring and watershed assesment	Thomas University	Collecting samples upstream from established sites to isolate and identify sources of pollution. EPD will contract with USGS to sample sites initially sampled in 1998. They will employ revised protocols to sample sites to avoid the impacts of extreme low flow or ponding which may have influenced DO samples collected in 1998 and the subsequent assessments for listing on the 303(d).	01/03	In planning	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
DO, FC	To be determined	Entire basin	Anticipated- very effective

Measurable Milestones	Schedule		Comments
	Start	End	
Adaptive monitoring 1 <sup>st</sup> cycle completed	01/03	01/04	Individuals, local govts, and EPD will be notified of the results
Decrease in concentration of FC Increase in concentration of DO	01/04	01/12	

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**POTENTIAL FUNDING SOURCES**

<b>Funding Source</b>	<b>Responsible Authority</b>	<b>Status</b>	<b>Anticipated Funding Amount</b>	<b>Impacted Waterbodies*</b>
Georgia EPD	Thomas University	In Planning	??	Entire basin
Archebold hospital Foundation	Friends of the Ochlockonee River	In Planning	??	Entire basin
EPA Wetlands Protection Program Grant	Thomas University	Preliminary Proposal Due on 02/12/02	To be determined	Entire basin
EPA 319 Grant	Thomas University & Local Govts	In Planning	To be Determined	Entire Basin
Williams Family Foundation	Friends of the Ochlockonee River	In Planning	To be Determined	Entire Basin
Woodruff Foundation	Thomas University To develop educational Materials	In Planning	To Be Determined	Entire Basin

**MONITORING PLAN**

<b>Name Of Regulation / Ordinance Or Management Measure</b>	<b>Organization</b>	<b>Impacted Waterbodies*</b>	<b>Pollutants</b>	<b>Purpose/Description</b>	<b>Time Frame</b>		<b>Status (Previous, Current, Proposed)</b>
					<b>Start</b>	<b>End</b>	
Initial monitoring	USGS/EPD	Entire Basin	DO & FC	To establish TMDLs	01/98	12/98	Previous
Selective Monitoring	Thomas University	Entire Basin	DO & FC	To develop monitoring Protocols And establish new monitoring sited	09/02	12/03	Current
EPD Monitoring	Thomas University	Established Sites	DO & FC/EC	To monitor the effectiveness of the above plans	01/03	01/04	Proposed
Adaptive Monitoring	Thomas University	303b streams	DO,FC, Turbidity Nutrients, ets	Identify and locate sources of pollutants in each identified stream	01/03	??	Proposed
Individual Industries	Industries	Various	DO, FC, Turbidity Nutrients	Monitor the affected steam above and below the industry for water quality	01/03	??	Voluntary program

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COMMENTS: Before definitive actions can be taken, specific offenders, land owners, and industries must be identified. The proposed adaptive monitoring procedures will Aid in identifying the specific sources of pollutants in streams that have non point pollution sources. With this knowledge, local and state governments will be able to enact or enforce existing statutes to correct the problem..

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**Bridge Creek**

<b>NAME</b>	<b>LOCATION</b>	<b>MILES/AREA IMPACTED</b>	<b>CLASSIFICATION</b>	<b>PARTIALLY SUPPORTING/ NON SUPPORTING (PS/NS)</b>
Bridge Creek	Upstream Ga. Hwy. 111 near Moultrie to Ochlockonee River	10	Fishing	NS
<b>PRIMARY COUNTY</b>	<b>SECONDARY COUNTY</b>	<b>SECOND RDC</b>	<b>SOURCE (POINT/NON-POINT)</b>	
Colquitt			Nonpoint	

<b>POLLUTANTS</b>	<b>WATER QUALITY STANDARDS</b>	<b>REQUIRED REDUCTION</b>	<b>TMDL ID #</b>	<b>DATE TMDL ESTABLISHED</b>
Dissolved Oxygen	5mg/l (daily average) 4 mg/l (minimum) Natural DO lower than state standard. Calculated target DO 3.29 mg/l.	41% TOC (lb/yr) 41% TN (lb/yr) 41% TP (lb/yr)		12/2001

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**SIGNIFICANT STAKEHOLDERS**

Name/Organization	Address	City	State	Zip	Phone	E-Mail
Georgia EPD	4220 Inter. Pkwy Suite 101	Atlanta	GA	30254	404.675.1614	<a href="mailto:Ted_Mikalson@mail.dnr.state.ga.us">Ted_Mikalson@mail.dnr.state.ga.us</a>
Colquitt County	P.O. Box 517	Moultrie	GA	31776	229.985.4029	
Worth County	201 N. Main St.	Sylvester	GA	31791	229.776.8200	
City of Moultrie	P.O. Box 3368	Moultrie	GA	31776	229.985.1974	
City of Doerun	P.O. Box 37	Doerun	GA	31744	229.782.5444	
The Nature Conservancy	18 North Main St.	Moultrie	GA	31768	229.958.8117	<a href="http://www.Georgiaconservancy.org">www.Georgiaconservancy.org</a>
Tall Timbers Research Station	13093 Henry Beadel Dr.	Tallahassee	FL	32312	850.893.4153	<a href="http://www.talltimbers.org">www.talltimbers.org</a>
International Paper	719 Southlands Rd.	Bainbridge	GA	31717	229.246.3642	<a href="mailto:Rebecca.winn@paper.com">Rebecca.winn@paper.com</a>
Friends of the Ochlockonee	1501 Millpond Rd.	Thomasville	GA	31792	229.226.1621	
Ga. Forestry Commission	3561 Highway 112	Camilla	GA	31730	229.522.3580	<a href="mailto:gfindley@gfc.state.ga.us">gfindley@gfc.state.ga.us</a>
Southwest Georgia RDC	30 West Broad St.	Camilla	GA	31730	229.522.3552	<a href="mailto:amacdonald@swgrdc.org">amacdonald@swgrdc.org</a>
USDA-NRCS	350 E. ByPass NE	Moultrie	GA	31788	229.985.5399	<a href="mailto:Randall.Odum@gamoultrie.fsa.usda.gov">Randall.Odum@gamoultrie.fsa.usda.gov</a>
Richard Royal	P.O. Box 607	Camilla	GA	31730	229.336.7339	
Roger King	2 12 <sup>th</sup> Avenue S	Moultrie	GA	31778	229.985.0034	
Johnny Smoak	1628 Evergreen Rd.	Sylvester	GA	31791	Unlisted	<a href="mailto:jmoak@peanut.org">jmoak@peanut.org</a>
Sherry Chambers	406 W. King St.	Sylvester	GA	31791	229.776.8625	<a href="mailto:schambers@peanut.org">schambers@peanut.org</a>
Steven Cox	8296 Ga Highway 133 S	Doerun	GA	31744	229.776.2926	
Misty Nemeth	955 Circle Road	Moultrie	GA	31768		
Rhonda Walters	P.O. Box 172	Doerun	GA	31744	229.782.5223	
Susan Bannister	P.O. Box 1397	Thomasville	GA	31799	229.227.7000	<a href="mailto:SusanB@Thomasville.org">SusanB@Thomasville.org</a>
Worth County Health Dept.	1012 W. Franklin St.	Sylvester	GA	31791	229.777.2150	
Worth County Schools	504 E. Price St.	Sylvester	GA	31791	229.777.8600	
Sylvester Public Library	205 E. Pope St.	Sylvester	GA	31791	229.776.2096	
Randy Bannister	P.O. Box 517	Moultrie	GA	31776	229.985.4459	
Colquitt County Schools	P.O. Box 2708	Moultrie	GA	31776	229.890.6200	<a href="http://www.colquitt.k12.go.us">www.colquitt.k12.go.us</a>
Whelchel, Carlton, & Walker	48 Cherokee Rd.	Moultrie	GA	31768		
Fallin and McIntosh	39 N. Main St.	Moultrie	GA	31776	229.985.5881	
Beadles Lumber Company	Box 3457	Moultrie	GA	31776	229.985.6996	

**EDUCATION/OUTREACH ACTIVITIES**

Responsible Organization Or Entity	Description	Impacted Waterbodies*	Target Audience	Anticipated Dates (MM/YY)
Georgia EPD	Adopt-A-Stream	Entire Basin	All Residents	11/02
Friends of the Ochlockonee River	No-profit organization serving the stakeholders	Entire Basin	All Residents	11/02
Ga Forestry Commission	Field Day for Land Owners to demonstrate Georgia BMPs	Entire Basin	All Landowners	02 or 03/03
Thomas University	Develop and Implement educational materials	Entire Basin	All School Children & TV audiences	Pre-proposal: 12/02

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**POLLUTANT SOURCES**

<b>Pollutant</b>	<b>Sources of Pollutants</b>	<b>Description of Contribution To Impairment</b>	<b>Impacted Waterbodies*</b>
DO	Agriculture Non Point	Runoff (?) Failure to prevent runoff from farming operations from entering the creeks	Bridge Creek
Low DO	Natural	Stream below critical conditions: High temperatures and low flow contribute to low levels of dissolved oxygen in the stream.	

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

<b>Regulation/Ordinance or Management Measure</b>	<b>Responsible Government, Organization or Entity</b>	<b>Description</b>	<b>Enacted/ Projected Date</b>	<b>Status</b>	<b>Regulatory/ Voluntary</b>
Forestry Best Management Practices	GA Forestry Commission GA EPD if enforcement	Protect streamside management zones and maintain canopy during harvesting	Current	In-progress	Voluntary (Violations of "Georgia Water Quality Act" may be pursued)

<b>Pollutant(s) Affected</b>	<b>Sources of Pollutant(s)</b>	<b>Impacted Waterbodies*</b>	<b>Anticipated or Past Effectiveness</b>
DO	nonpoint	Bridge Creek 2	EPA identifies silviculture as the lowest contribution source of nonpoint pollution

<b>Measurable Milestones</b>	<b>Schedule</b>		<b>Comments</b>
	<b>Start</b>	<b>End</b>	
Increase in concentration of DO of 0.5	01/03	01/05	Education of Land owners & buffer funding requests & adaptive monitoring
Bridge Creek 2- DO > Target of 3.29 mg/L	01/05	01/12	Continued efforts of land owners and mining operations

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
USDA programs applicable to protecting riparian corridors such as the Conservation Reserve Program, Wetlands Reserve Program and Conservation Buffer Initiatives	USDA/NRCS	These programs serve to protect or restore riparian buffers which. These buffers may contain canopies that reduce sunlight penetration, stream warming and reduction of oxygen saturation. The buffers also filter fertilizer and organic wastes from runoff, which may in turn cause excessive algae growth and eventually depressed dissolved oxygen levels. By removing organic wastes, such as manure, the possibility of pathogen introduction is also reduced.	Current	In Progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
FC, DO	Non point	Bridge Creek	

Measurable Milestones	Schedule		Comments
	Start	End	
Increase in concentration of DO Decrease in concentration of FC	01/03	01/05	Education of Land owners & buffer funding requests & adaptive monitoring
Bridge Creek 1- DO > target of 2.66 mg/L  FC < 200 gm/100 mL Bridge Creek 2- DO > target of 3.29 mg/L	01/05	01/12	Continued efforts of land owners and mining operations

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Reduce Dumping off bridges	Colquitt & Worth Counties	Reduce trash and carcasses being dumped into the river tributaries-Education and Enforcement programs	Thomas 10/02 Grady & Mitchell Cty ??	In progress proposed	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
DO	Oils, greases, carcasses	Bridge Creeks 2	Not effective

Measurable Milestones	Schedule		Comments
	Start	End	
Reduction in the amount of trash observed	01/03	01/05	Educational programs, signs. monitoring via photography
Continued reduction of trash observed	01/05	01/12	Continue above actions

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Reduce runoff from bridges	Colquitt & Worth Counties	Implement measures to reduce runoff from un-improved and improved county roads	01/05	In planning	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
DO	Runoff from roads	Bridge Creeks 2	Unknown

Measurable Milestones	Schedule		Comments
	Start	End	
Experimental designs started Begin monitoring test sites 01/05	01/05	01/08	Application EPA Wetlands protection grant -pre-proposal 12/02

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Georgia Planning Act	GA DNR, Local governments	To help prevent groundwater contamination, the Georgia Planning Act identifies groundwater recharge areas as critical natural resources and directs steps to help prevent contamination of groundwater. DNR has established minimum criteria for protection of groundwater recharge areas. DNR's minimum standards are to be used in developing and implementing local comprehensive plans. Local governments are directed to incorporate provisions for protection of groundwater recharge areas in local comprehensive plans and to adopt protective ordinances at least as stringent as the state standards developed by DNR. This protection of groundwater recharge should also have a positive although indirect impact on surface water quality.	ASAP	Planning	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
FC, DO	Runoff & over well pumping	All streams in the basin	Unknown

Measurable Milestones	Schedule		Comments
	Start	End	
Regulation are enforced	ASAP		

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Adaptive monitoring and watershed assesment	Thomas University	Collecting samples upstream from established sites to isolate and identify sources of pollution. EPD will contract with USGS to sample sites initially sampled in 1998. They will employ revised protocols to sample sites to avoid the impacts of extreme low flow or ponding which may have influenced DO samples collected in 1998 and the subsequent assessments for listing on the 303(d).	01/03	In planning	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
DO	To be determined	Entire basin	Anticipated- very effective

Measurable Milestones	Schedule		Comments
	Start	End	
Adaptive monitoring 1 <sup>st</sup> cycle completed	01/03	01/04	Individuals, local govts, and EPD will be notified of the results
Increase in concentration of DO	01/04	01/12	

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**POTENTIAL FUNDING SOURCES**

<b>Funding Source</b>	<b>Responsible Authority</b>	<b>Status</b>	<b>Anticipated Funding Amount</b>	<b>Impacted Waterbodies*</b>
Georgia EPD	Thomas University	In Planning	??	Entire basin
Archebold hospital Foundation	Friends of the Ochlockonee River	In Planning	??	Entire basin
EPA Wetlands Protection Program Grant	Thomas University	Preliminary Proposal Due on 02/12/02	To be determined	Entire basin
EPA 319 Grant	Thomas University & Local Govts	In Planning	To be Determined	Entire Basin
Williams Family Foundation	Friends of the Ochlockonee River	In Planning	To be Determined	Entire Basin
Woodruff Foundation	Thomas University To develop educational Materials	In Planning	To Be Determined	Entire Basin

**MONITORING PLAN**

<b>Name Of Regulation / Ordinance Or Management Measure</b>	<b>Organization</b>	<b>Impacted Waterbodies*</b>	<b>Pollutants</b>	<b>Purpose/Description</b>	<b>Time Frame</b>		<b>Status (Previous, Current, Proposed)</b>
					<b>Start</b>	<b>End</b>	
Initial monitoring	USGS/EPD	Entire Basin	DO & FC	To establish TMDLs	01/98	12/98	Previous
Selective Monitoring	Thomas University	Entire Basin	DO & FC	To develop monitoring Protocols And establish new monitoring sited	09/02	12/03	Current
EPD Monitoring	Thomas University	Established Sites	DO & FC/EC	To monitor the effectiveness of the above plans	01/03	01/04	Proposed
Adaptive Monitoring	Thomas University	303b streams	DO,FC, Turbidity Nutrients, ets	Identify and locate sources of pollutants in each identified stream	01/03	??	Proposed
Individual Industries	Industries	Various	DO, FC, Turbidity Nutrients	Monitor the affected steam above and below the industry for water quality	01/03	??	Voluntary program

COMMENTS: Before definitive actions can be taken, specific, offenders, land owners, and industries must be identified. The proposed adaptive monitoring procedures will aid in identifying the specific sources of pollutants in streams that have non point pollution sources. With this knowledge, local and state governments will be able to enact or enforce existing statutes to correct the problem..

Ochlockonee River Basin  
TMDL Implementation Plan  
Bridge Creek Watershed  
HUC 10 0312000203

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