

STATE OF GEORGIA
TIER 2 TMDL IMPLEMENTATION PLAN REVISION #1
 Whitewater Creek Watershed
 Flint River Basin

Fulton County, Fayette County, and the cities of Fairburn, Union City and Tyrone

I. INTRODUCTION

Total Maximum Daily Load (TMDL) Implementation Plans are platforms for evaluating and tracking water quality protection and restoration. These plans have been designed to accommodate continual updates and revisions as new conditions and information warrant. In addition, field verification of watershed characteristics and listing data has been built into the preparation of the plans. The overall goal of the plans is to define a set of actions that will help achieve water quality standards in the state of Georgia.

This implementation plan addresses the general characteristics of the watershed, the sources of pollution, stakeholders and public involvement, and education/outreach activities. In addition, the plan describes regulatory and voluntary practices/control actions (*management measures*) to reduce pollutants, milestone schedules to show the development of the management measures (*measurable milestones*), and a monitoring plan to determine the efficiency of the management measures.

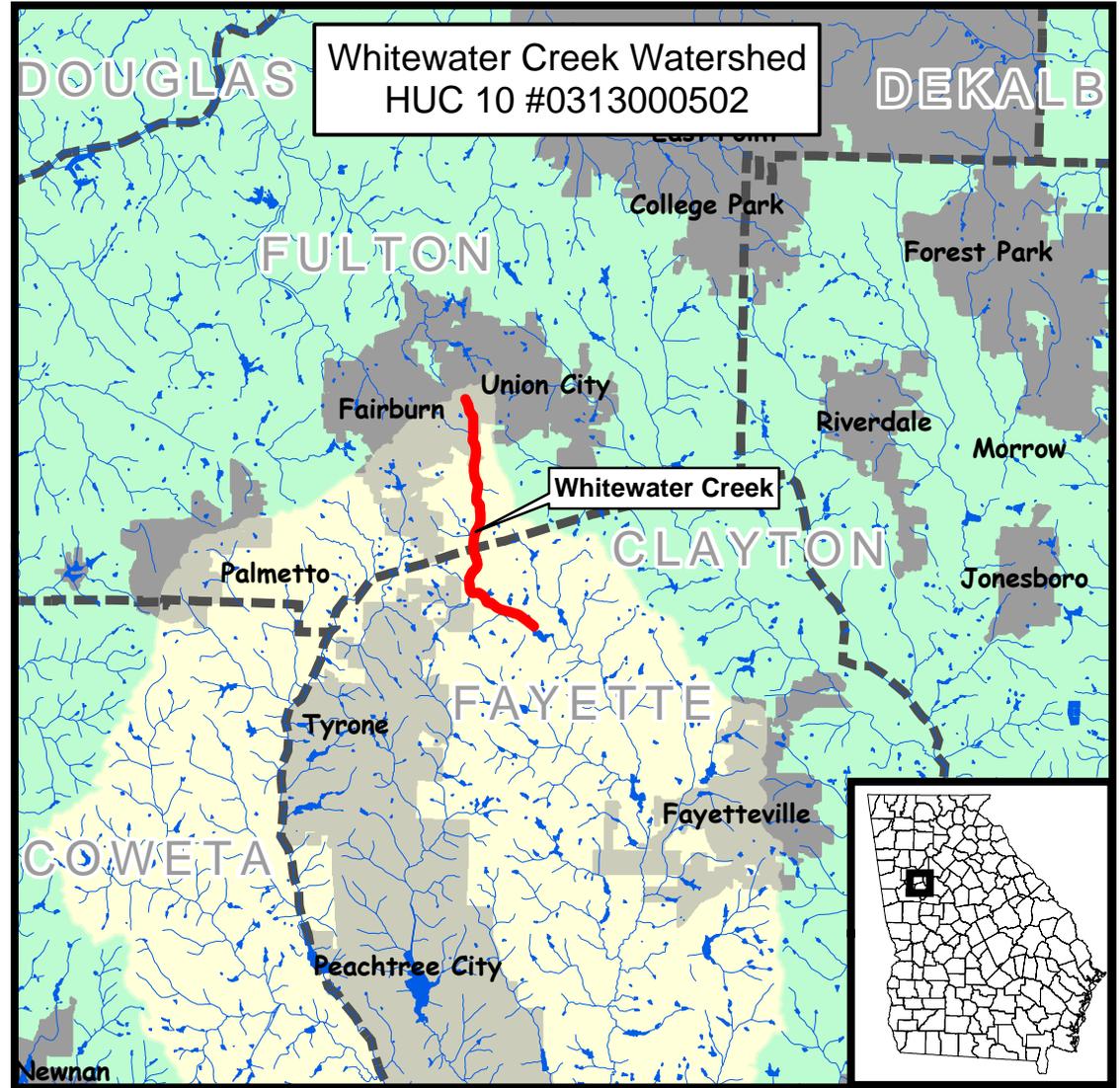


Table 1. IMPAIRMENTS

IMPAIRED STREAM SEGMENT	IMPAIRED SEGMENT LOCATION	IMPAIRMENT
Whitewater Creek	Upstream Lees Lake	Biota (sediment)
Flat Creek*	Lake Peachtree to Line Creek, Peachtree City	Dissolved Oxygen

* Plan will be written by GA EPD

II. GENERAL INFORMATION ABOUT THE WATERSHED

Write a narrative describing the watershed, HUC 10# 0313000502. Include an updated overview of watershed characteristics. Identify new conditions and verify or correct information in the TMDL document using the most current data. Include the size and location of the watershed, political jurisdictions, and physical features which could influence water quality. Describe the source and date of the latest land cover/use for the watershed. Describe and quantify major land uses and activities which could influence water quality. See the instructions for more information on what to include.

The Whitewater Creek Watershed (HUC10 #0313000502) is located in the upper portion of the Flint River Basin in the metro Atlanta area. The land area for HUC 10 # 0313000502 is 157,925 acres. Interstate 85 runs across the northern boundary of this HUC10 and the Whitewater Creek TMDL stream segment. The 2001 ARC land cover data shows a small amount of commercial use in this northern portion of the HUC10 but appears to be primarily forested with a small amount of residential uses. The local governments with interest in the Section 305(b) / Section 303(d) listed stream segment in this HUC10 watershed include: Fulton, Fayette, and the cities of Fairburn, Union City, and Tyrone. The Whitewater Creek (Upstream Lees Lake) stream segment identified on Georgia Environmental Protection Division's 303(d) list is the only stream segment in this HUC10 watershed for which ARC has developed an implementation plan. The 303 (d) listed stream segment of Whitewater Creek begins in the city limits of Union City and Fairburn and then flows through Unincorporated Fulton County and finally ending in Fayette County at Lees Lake.

The Whitewater Creek TMDL segment watershed has a smaller land area than the entire HUC10 watershed that affects the actual TMDL stream segment. We have included below a table describing the land cover for the Whitewater Creek TMDL stream segment watershed. The land cover data used to develop this table is data developed by the Atlanta Regional Commission in 2001. The 2003 TMDL used land cover data that was based on satellite imagery from 1995. The land cover data found in the TMDL shows that forested areas make up approximately 66.9% of the Whitewater Creek TMDL segment watershed. The 2001 data used by ARC shows that Forest/Open Space accounts for 41.27% of the watershed area. The data found in the TMDL shows that Pasture/Hay and Row Crops combined make up 12.5% of the Whitewater Creek TMDL segment watershed. Whereas the ARC 2001 data shows Agricultural Lands make up 20.01% of the whitewater creek TMDL Watershed. The data found in the TMDL shows that Low Intensity Residential accounts for 8.7% of the Whitewater Creek TMDL segment watershed. The 2001 ARC data shows that Low-Density Residential accounts for 9.86% of the watershed area. Aerial imagery from 2003 also reveals evidence of recent land disturbing activities in the Whitewater Creek TMDL segment watershed. The acreage totals found in the below table reflects the watershed boundary ARC has updated. This updated TMDL stream segment watershed boundary will be provided to GA EPD. This table also defines how ARC has aggregated the ARC Land cover codes into simplified groupings similar to those found in the TMDL. An additional table has been added to the last page of this document that defines the Aggregated ARC Land Cover Codes.

ARC 2001 Land Cover for Whitewater Creek TMDL Segment Watershed

Land Cover Classification	Area (Acres)	% of Total Area	Aggregated ARC Land Cover Codes
Forest/Open Space	2840.26	41.27%	40, 171, 172, 173
Agricultural Lands	1377.49	20.01%	21, 22, 23, 24
Low-Density Residential	678.50	9.86%	111
Commercial	555.18	8.07%	12, 15, 121
Medium-Density Residential	531.47	7.72%	112
Water/Wetland	396.43	5.76%	51, 53, 60
High-Density Residential	227.38	3.30%	113, 117, 119
Transitional & Extractive Lands	213.29	3.10%	17, 74, 75, 76
Transportation and Utilities	62.46	0.91%	14, 145
Total Acres	6882.45	100.00%	

This stream segment is identified as not supporting designated use (i.e. 303(d) listed as Biota Impacted) due to sedimentation. As described by US EPA in the Sediment TMDL document dated January 2003 the Biota Impacted designation indicates that studies have shown a modification of the biological community, more specifically, fish. In 1990, 1998, 1999 and 2000, the Department of Natural Resources (DNR) Wildlife Resource Division (WRD) conducted studies of fish populations. WRD used the Index of Biotic Integrity (IBI) and modified Index of Well-Being (IWB) to identify affected fish populations. The IBI and IWB values were used to classify the population as Excellent, Good, Fair, Poor, or Very Poor. Stream segments with fish populations rated as Poor or Very Poor were included in the partially supporting list.

For each waterbody on the 303(d) list, the U.S. Clean Water Act requires a TMDL be developed for each pollutant. A TMDL is a calculation of the maximum amount of a pollutant, from both point and non-point sources that a waterbody can receive and still meet water quality standards. The U.S. EPA developed a TMDL for this stream segment in January 2003 that shows a 0% reduction in sediment loads is needed. Based on the above land cover data and review of 2003 aerial photography GA EPD has decided that an implementation plan is needed for Whitewater Creek.

Fulton County Department of Public Works and Fayette County Engineering Department staff identified the potential sources of sediment in this watershed. The following potential sediment sources were identified for this segment: urban runoff, agriculture, unpaved road surfaces and stream bank erosion. The Georgia Forestry Commission (GFC) has been contracted by GA EPD to monitor active silvicultural operations in the Whitewater Creek stream segment watershed and the GFC has identified silviculture as a potential sediment source.

This implementation plan was developed with the help of representatives from Fulton County Department of Public Works, Fayette County Engineering Department, Fayette County Water System, and the Cities of Fairburn, and Union City. The Atlanta Regional Commission coordinated the public meetings and the input received from local stakeholders and technical advisory staff. Comments and requested revisions to the draft plan have been considered in developing this final draft implementation plan.

The Georgia Forestry Commission has proposed to conduct monthly aerial reconnaissance of the watershed and monitor all active sites to provide for “reasonable assurance” that BMPs are implemented on these sites. Cases of noncompliance will be turned over to EPD for enforcement.

A portion of the management measures listed in this implementation plan were included by Georgia Environmental Protection Division staff. Those programs include: Federal Clean Water Act Section 404, Federal Farm Bill, a memo to the field relating to the establishment of pine plantations, GA Growth Planning Act, GA Water Quality Control Act (OCGA 12-5-20), GA Forestry Commission BMPs, Land Disturbing Activities Training & Certification Program and Ordinance Revisions. Fulton County has included a portion of their Watershed Protection Plan in this implementation plan. Fayette County’s management measures are based on their NPDES Phase II Municipal Separate Storm Sewer System (MS4) Permit requirements as well as a Soil Erosion and Sedimentation Control Ordinance. The City of Fairburn’s management measures are based on their NPDES Phase II Municipal Separate Storm Sewer System (MS4) Permit requirements. The Metropolitan North Georgia Water Planning District has developed a Watershed Management Plan which requires large communities to adopt stormwater ordinances. The City of Union City has included the following management measures in this implementation plan: Open Space Conservation Overlay District, Post Development Storm Water Runoff Ordinance, Illicit Discharge Ordinance, and a Flood Plain Management & Damage Prevention Ordinance. The Fulton County and Fayette County Government both have an extensive public education / outreach program planned for educating the public about water quality concerns. These programs include a range of activities such as watershed workshops and activities for schools age students. The Georgia Forestry Commission conducts educational training for foresters and landowners. The City of Fairburn produces a newsletter which discusses stormwater issues.

The purpose of this implementation plan is to reduce or eliminate the sources of sediment contributing to these stream segments in order to meet the water quality standard. The water quality attainment date will be ten years from the time the implementation plan is approved.

Whitewater Creek

COMPLETE THE FOLLOWING TABLES FOR AND NARRATIVES ABOUT EACH IMPAIRED STREAM IN THE WATERSHED.

STREAM SEGMENT NAME	LOCATION	MILES/AREA	DESIGNATED USE	PS/NS
Whitewater Creek	Upstream Lees Lake (Fayette Co.)	6 miles	Fishing	PS

III. SOURCES AND CAUSES OF STREAM SEGMENT IMPAIRMENT LISTED IN TMDLs

After reviewing the TMDLs written for this stream, complete the following tables with **the information found in the TMDLs**. List each parameter for which the stream segment is impaired and the water quality standard violated. See the instructions for the water quality standards. Describe the sources and causes of each violation identified in the TMDLs.

Table 2. SOURCES OF IMPAIRMENT AS INDICATED IN TMDLs

PARAMETER 1	WQ STANDARD	SOURCES OF IMPAIRMENT	NEEDED REDUCTION FROM TMDL
Sediment (Biota Impacted)	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.	Urban Runoff (UR)	0%

IV. IDENTIFICATION AND RANKING OF POTENTIAL SOURCES OR CAUSES OF IMPAIRMENT

INVESTIGATE AND EVALUATE the sources of impairment for each parameter listed in Table 2. Write a narrative describing efforts made or procedures used to verify the significance and extent of the sources or causes of each impairment listed in the TMDLs. Include:

- Involvement of stakeholder group
 - Field surveys
 - Review of land cover data
 - Evaluation of sources
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A meeting was held in March 2004 with local city and county staff to review the TMDL segment and discuss potential sources of pollution. In May 2004 public meetings were held to solicit general stakeholder involvement. Large presentation size maps using 2003 aerial imagery were developed for the public meetings as a tool to help locate sources. The stakeholders were asked for their input on any potential sources of pollution in the area. In addition to reviewing aerial imagery ARC staff will review the most recent landuse data available (year 2001) for the area and will be updating the watershed description found in the TMDLs. This process involved first verifying that the correct watershed was used in the development of the TMDL. ARC staff has updated watershed delineations and will provide the updated watershed boundaries to GA EPD.

In addition to the efforts stated above the City of Fairburn has an Erosion & Sedimentation inspection program to inspect all land disturbing activities on a regular basis. The City of Fairburn Code Enforcement Officer is responsible for the inspection program that targets all construction projects within the City limits. The inspections include checking all erosion and sediment control measures for compliance with the approved E&S plans and NPDES permit. The authority for such inspections follows from the City's Soil Erosion and Sedimentation Control Ordinance. If, upon inspection, a construction site is found to be in non-compliance with its approved E&S plan, NPDES permit, and the minimum requirements of the E&S ordinance, the Code Enforcement Officer will be responsible for enforcing the provisions of the Soil Erosion and Sedimentation Control Ordinance. Enforcement measures can include: notices of violation, stop work orders, and fines.

Fairburn staff, or contracted consultant, shall conduct a comprehensive site inspection after land disturbing activities commence to verify compliance with all applicable E&S requirements. All sites that have an LDA permit will be inspected at the start of land disturbing activities to ensure that the ESCP has been effectively implemented. An inspection will also be conducted after land disturbing activities have ceased to ensure that the site has been adequately stabilized and that all excess materials have been removed. Inspections will be conducted on a regular basis during the construction process and will be prioritized as follows:

- Evidence of poor housekeeping
- History of poor compliance
- Evidence of absent or malfunctioning controls
- Citizen complaints

Additionally, follow-up inspections by City staff, or consultant will take place to verify that corrective measures have been taken for previously documented deficiencies.

Deficiencies noted during such inspections will formally be documented with an inspection log that contains detailed descriptions of deficiencies and a coded site map that illustrates their locations. The inspection log will be made available to the City's Code Enforcement Officer so that corrective action can be taken. Additionally, follow-up inspections by City representatives will take place to verify corrective measures have been taken for previously documented deficiencies.

The Line Creek Association of Fayette County has conducted a macroinvertebrate study on this stream segment during the last few years. In a report provided to ARC the Line Creek Association has stated that the samples they have taken "are in general agreement with the Georgia EPD concern over a depressed biotic condition."

To the extent possible, identify sources and quantify the extent of pollution in the stream segment for each of the parameters listed in Table 2 and evaluate the likely impact on the parameter load to the stream. This should follow research performed and described in preceding narrative and should correct or add information to the TMDLs. **The SOURCES SHOULD BE RANKED** from those having the most impact to those having the least impact. The estimated extent of contribution can be expressed as the area of the watershed affected, the stream miles affected, or the number of activities contributing to the problem. The magnitude of contribution should be estimated to be large, moderate, small, or negligible.

Table 3. CONCLUSIONS MADE OF POTENTIAL SOURCES OF STREAM SEGMENT IMPAIRMENT

PARAMETER 1	POTENTIAL SOURCES	ESTIMATED EXTENT OF CONTRIBUTION	ESTIMATED MAGNITUDE OF CONTRIBUTION	COMMENTS
Sediment	Urban Runoff	Entire Reach	Moderate	Non-point Source: Nonpoint sources of sediment are diffuse sources that cannot be identified as entering the water body at a single location. These sources generally involve land use activities that contribute sediment to streams during a rainfall runoff event.
Sediment	Stream Bank Erosion	Sporadically throughout the segment	Moderate	Caused by increased flow due to urban runoff
Sediment	Unpaved Road Surfaces	Limited	Small	Non-point Source
Sediment	Agriculture	Sporadically throughout the segment	Small	Non-point Source
Sediment	Silviculture	Limited	Small	Possible introduction of sediment from normal practices and stream crossings when BMPs are not followed.

Fayette County staff has included the following description of the estimated extent of contribution from the above potential pollution sources. The below information refers only to the Fayette County portion of the stream segment watershed.

Stream Bank Erosion - Prevalent throughout stream channel and along tributaries. Estimated magnitude of contribution: Moderate

Urban Runoff - There are three businesses within the Fayette County portion of the watershed. Estimated magnitude of contribution: Small

Agriculture - Most of the land within the Fayette County portion of the watershed is residential – agricultural activities is limited in this area. Estimated magnitude of contribution: Small

Unpaved Road Surfaces - There are several gravel roads within the Fayette County portion of the watershed. Estimated magnitude of contribution: Small

Silviculture - Limited area within the Fayette County portion of the watershed. Estimated magnitude of contribution: Negligible

V. STAKEHOLDERS

PUBLIC INVOLVEMENT AND THE ACTIVE PARTICIPATION OF STAKEHOLDERS is essential to the process of preparing TMDL implementation plans and improving water quality. Stakeholders can provide valuable information and data regarding their community, impaired water bodies, potential causes of impairments, and management practices and activities which may be employed to reduce the impacts of the causes of impairment.

Describe outreach activities to advise and engage stakeholders in the TMDL implementation plan preparation process. Describe the stakeholder group employed or formed to address the impaired segments in the watershed. Summarize the results of the number of attendees and meetings and describe major findings, recommendations, and approvals.

As a first step an initial meeting was held in March 2004 with local government agencies to determine possible sources of pollution as well as any preventative / corrective measures in place or planned for the area. The local government agencies in the advisory group for this segment are listed in Table 4.

The most important part of developing these implementation plans is locating stakeholders in this area. ARC staff searched for stakeholders listed on existing mailing lists (Home Owner Associations, Adopt-A-Stream, Watershed Alliance groups, etc.) to invite to the public meetings. The staff also gathered tax assessment information on landowners who owned more than 50 acres in the county. These stakeholders were considered large landowners and included public, private, and commercial types of property. Businesses listed on EPA's Enforcement & Compliance History Online (ECHO) website (www.epa.gov/echo) that were located in the area were also invited to the public meetings. A list of elected officials, chambers of commerce, parks & recreation departments, NRCS, GA Soil & Water Conservation Commission, and National Park Service representatives were also invited to the public meetings. ARC staff also included schools, libraries, and large apartment complexes in the public meeting mailing list.

The next outreach activity was to develop a website for this project (www.atlantaregional.com/cleanerstreams). The website provided a variety of information and access opportunities for the TMDL Implementation Plan process. The website identified the local government participants, provided a list and map of the TMDL stream segments. The TMDL documents, the 303(d) list and other background information was available on this website. An online sign-up and feed-back form was included on the website so that people could sign up to be a stakeholder. These stakeholder names and other stakeholders can be found in Appendix A. In an effort to provide further detailed information on the TMDL stream segments and their watersheds, an interactive GIS map was developed as a part of the website. This interactive mapping technology allows individuals to zoom in to the area they are interested in and print out maps. The website also included access to a 10-minute video and slide presentation that explains the implementation plan development process and provides online feedback thus creating a virtual stakeholder public meeting and involvement process. This video resource was made available from May 3, 2004 to August 3, 2004. During this three month period a total of 129 visitors accessed the virtual public meeting. It was confirmed that public libraries in the area have high speed internet access and that the virtual public meeting could be viewed on computers at any public library in the metro Atlanta area.

The next step in this process involved holding 4 initial public meetings in May 2004 to educate stakeholders about this process and solicit input. A total of 43 persons attended the public meetings.

Methods used to inform the general public about the implementation plan development process and the public meetings include: having major environmental groups send out meeting notices in their electronic newsletters, distributing press releases, purchasing newspaper advertising space, sending out numerous e-mails announcing the initial meetings and finally mailing out 3500 meeting announcements to local groups (home owner associations, watershed alliances, etc.), businesses, large landowners, elected officials, Chambers of Commerce, Parks & Recreation Departments, NRCS, and the National Park Service.

After input had been received from our local government advisory group and stakeholders a draft implementation plan was developed. This draft document was made available to all stakeholders for discussion and input at the 4 public meetings held in June 2004. A total of 37 persons attended the public meetings.

List the watershed or advisory committee members of the stakeholder group for this segment in the following table.

Table 4. COMMITTEE MEMBERS

NAME/ORG	ADDRESS	CITY	STATE	ZIP	PHONE	E-MAIL
GA EPD, Water Protection Branch	4220 International Pkwy, Suite 101	Atlanta	GA	30354	(404) 675-1751	
GA Adopt-A-Stream	4220 International Pkwy, Suite 101	Atlanta	GA	30354	(404) 675-1636	
Georgia Soil and Water Conservation Commission	1500 Klondike Road Suite A109	Conyers	GA	30094	770-761-3020	kshahlaee@gaswcc.org
Fulton County Public Works (Nick Ammons)	141 Pryor St., S.W., Suite 6001	Atlanta	GA	30303	404-730-7589	
NRCS	678 South Cobb Drive, Suite 150	Marietta	GA	30060	770-792-0594	
Fulton County Cooperative Extension Service	141 Pryor St., Suite 1031	Atlanta	GA	30303	404-730-7000	
Fayette County Water System (Tony Parrott)	245 McDonough Road	Fayetteville	GA	30215	770-461-1146	tonyp@admin.co.fayette.ga.us
Fayette County Engineering Department	140 Stonewall Avenue West Suite 203	Fayetteville	GA	30214	770-460-5730	pmallon@admin.co.fayette.ga.us
City of Fairburn / Jim Williams	56 Malone Street	Fairburn	GA	30213	(770) 964-2244	mgr@fairburn.com
City of Fairburn / Troy Besseche	56 Malone Street	Fairburn	GA	30213		troy@fairburn.com
Ron Feldner / Integrated Science & Engineering	275 S. Lee Street	Fayetteville	GA	30214	770-461-4292	
William Landrum / City of Union City	5047 Union Street	Union City	GA	30291	770-306-6855	blandrum@unioncityga.org

In Appendix A, list the names, addresses, telephone numbers, and e-mail addresses for local governments, agricultural or commercial forestry organizations, significant landholders, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

VI. MANAGEMENT MEASURES AND ACTIVITIES

Describe any management measures or activities that have been put into place or will be put into place including regulatory or voluntary actions or other controls by governments or individuals that specifically apply to the pollutant that will help achieve water quality standards. Include who will be responsible for the measure, how it will be funded, the status, the date it will be or was initiated, and a short description of how effective the measure is or will be.

Table 5. MANAGEMENT MEASURES AND ACTIVITIES

MEASURE	RESPONSIBILITY	DESCRIPTION	SOURCE OF FUNDING	STATUS	ENACTED/ IMPLEMENTED	EFFECTIVENESS (Very, Moderate, Weak)
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Federal Clean Water Act Section 404 (Ag and Forestry)	EPA (situations involving forestry are normally referred to the GFC to determine compliance with this regulation)	Requires normal ongoing agricultural and silvicultural practice to adhere to BMPs and 15 baseline provisions for road construction and maintenance in and across waters of the US including lakes, rivers, perennial and intermittent streams, wetlands, sloughs in order to qualify for the exemption from the permitting process.		Current	June 6, 1988	EPA identifies silviculture as the lowest contribution source of nonpoint pollution
Memo to the Field: Application of BMPs to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast (Silviculture)	EPA/ US Army Corps of Engineers - (cases normally referred to GFC to make initial determination)	Identifies certain bottomland hardwood wetlands that should be subject to permitting if converting to pine plantations.		Current	November 1995	
Federal Farm Bill (Swampbuster, Ag)	US Department of Agriculture Natural Resource Conservation Service	Prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture		Current		
GA Growth Planning Act (OCGA 12-2-8)	GA DNR, Department of Community Affairs, and local units of government	Authorized GA DNR to develop minimum planning standards and procedures that local jurisdictions could adopt and enforce pertaining to the protection of river corridors, mountain tops, water supply watersheds/reservoirs, groundwater recharge areas, and wetlands. Silvicultural activities may be exempted from permitting requirements provided the activity complies with BMPs			1991	
Georgia Forestry Commission Monthly BMP Assurance Examination	Georgia Forestry Commission (matters involving enforcement are generally referred to GA EPD)	In an effort to document "reasonable assurance" that water quality will be proactively protected during regular ongoing silvicultural operations, the GCF will offer a monthly BMP assurance examination of active sites. All active of ongoing sites will be identified either through monthly air patrol flights, courthouse records, riding the roads, notification or by landowners. Sites located within watersheds of specific biota (sediment) impaired streams will be given a higher priority to identify and conduct examinations.		Current	1/1/03	EPA identifies silviculture as the lowest contribution source of nonpoint pollution
Georgia Water Quality Control Act (OCGA 12-5-20)	GA DNR EPD	Makes it unlawful to discharge excessive pollutants (sediments, nutrients, pesticides, animal waste, etc.) into waters of the State in amounts harmful to public health, safety, or welfare, or to animals, birds, or aquatic life or the physical destruction of stream habitats.		Current	1964	

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Georgia's Best Management Practices	Georgia Forestry Commission (matters involving enforcement are generally referred to GA EPD)	Inform landowners, foresters, timber buyers, loggers site preparation and reforestation contractors and others involved with silvicultural operations about commonsense, economical effective practices to minimize nonpoint source and thermal pollution.		Current	1989, 1997	EPA identifies silviculture as the lowest contribution source of nonpoint pollution
Land Disturbance Activities Training and Certification Program	Local County Government	Develop a training and certification program for individuals involved with land disturbance activities. The program should include local engineers, developers, contractors, builders, county personnel, landscape architects, and others who intend to perform similar construction.		Georgia Erosion & Sediment Control Act 2003 Amendment	December 2006	A certification program for erosion and sediment control and stormwater management ensures everyone involved in land disturbing activities is aware of proper construction, maintenance, and importance of sediment and erosion control measures and stormwater management facilities.
Ordinance Revisions	Local County Government	Review the current Erosion & Sediment control ordinance and modify as appropriate. Include requirements for professionals involved in erosion and sediment control design and construction to be certified by the county. Include requirements for pollution prevention at the construction site through the preparation of an Erosion, Sedimentation & Pollution Control Plan to address issues such as trash, construction debris, leaking vehicles, storage of chemicals, etc.		Georgia Erosion & Sediment Control Act 2003 Amendment	July 2004	Changes made in 2003 to the state's erosion and sediment control program. Channel protection and conservation subdivision ordinances will provide further guidelines for construction activities.
Reduction in agricultural land use through conversion to developed property	Fulton County	Refer to Fulton County Watershed Protection Plan (June 2002)	Private Development	Ongoing	1808	Moderate
Soil Erosion and Sedimentation Control Ordinance	Fayette County Engineering Department	The ordinance requires the site-specific design and implementation of Best Management Practices to minimize soil erosion and sedimentation during land disturbing activities. Fayette County is a Local Issuing Authority and, as such, reviews and approves ESC plans and performs field inspections to enforce compliance.	General Funds and collection of a Disturbed Acre fee	Ongoing	Original adoption in 1990, the ordinance was mostly recently revised in February 2004.	Very

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Phase II MS4 NPDES Permit	Fayette County	This program requires the implementation of six minimum control measures designed to maintain or improve water quality. The permit is applicable to the "urbanized", unincorporated portions of the County; however, many of the management practices should have beneficial impacts throughout the County.	General Funds	The control measures are currently being developed and implemented .	The General Permit was effective 12/9/02. Fayette County's Draft NOI was submitted to the State EPD in March 2003	Unknown - This program is in the initial stages of implementation and the overall program effectiveness can not be determined at this time.
NPDES Phase I Permit # GAS000115	City of Fairburn	MS4 Permit: The State of GA has issued the City of Fairburn with a permit to operate the City's Municipal Separate Storm Sewer System (MS4). Major aspects of the permit include public education, illicit discharge detection and elimination, source identification activities, water sampling and reporting.	General Funds	Current	1994	Very
District-Wide Watershed Management Plan	Metropolitan North Georgia Water Planning District and Local Governments in 16 county District Area	As a part of this watershed management plan MS4 Phase I and Phase II communities will be required to adopt the following ordinances: Post Development Storm Water Management for New Development and Redevelopment, Illicit Discharge and Illegal Connection, and Stream Buffer Protection. As well as establishing municipal Good Housekeeping Practices.	Local Funds	Ongoing	2004 & 2005	Very
Open Space Conservation Overlay District	City of Union City	Part of Metropolitan North Georgia Water Planning District's effort to improve water quality.	local	Current	2004	unknown
Post Development Storm Water Runoff Ordinance	City of Union City	Part of Metropolitan North Georgia Water Planning District's effort to improve water quality.	local	Current	2004	unknown
Illicit Discharge Ordinance	City of Union City	Part of Metropolitan North Georgia Water Planning District's effort to improve water quality.	local	Current	2004	unknown
Flood Plain Management & Damage Prevention Ordinance	City of Union City	Part of Metropolitan North Georgia Water Planning District's effort to improve water quality.	local	Current	2004	unknown

VII. MONITORING PLAN

The purposes of monitoring are to obtain more data, to determine the sources of pollution, to describe baseline conditions, and to evaluate the effects of management and activities on water quality. Describe any sampling activities or other surveys - active, planned or proposed - and their intended purpose. Reference the development and submission of a Sample Quality and Assurance Plan (SQAP) if monitoring for delisting purposes.

Table 6. MONITORING PLAN

PARAMETER(S) TO BE MONITORED	ORGANIZATION	STATUS (CURRENT, PROPOSED, PLANNED)	TIME FRAME		PURPOSE (If for delisting, date of SQAP submission)
			START	END	
Sediment	GFC	Current			BMP Education
Sediment	GFC	Current			Complaint Investigation
Sediment	GFC	Proposed			BMP Monitoring monthly Assurance Exams
Sediment	GA EPD, Wildlife Resources Division	Previous	1999	1999	Index of Biotic Integrity (IBI) & Index of Well-Being (IWB) fish population monitoring that placed the stream on Georgia's 305(b) & 303(d) list.
Sediment	GA EPD	Previous	1999	1999	Modeling done to determine Sediment TMDLs
Sediment	Fairburn	current	1995	Ongoing	NPDES MS4 Program Dry weather screening

VIII. PLANNED OUTREACH FOR IMPLEMENTATION

List and describe outreach activities which will be conducted to support this plan and the implementation of it.

Table 7. PLANNED OUTREACH

RESPONSIBILITY	DESCRIPTION	AUDIENCE	DATE
Georgia Soil & Water Conservation Commission	The Georgia Soil & Water Conservation Commission is conducting NPDES Storm Water Permit (Phase II) training to comply with provisions in the 2003 Amendment to the Georgia Erosion & Sedimentation Control Act. Permit requirements apply to developers, builders, contractors and local and state governments and their contractors: All owners and operators must have "Qualified Personnel " on-site to perform daily construction-activity inspections. The Georgia S&WCC are providing one-day workshops to train stakeholders in HB 285; NPDES Permit Requirements; Inspecting, Monitoring and Sampling; Reporting Compliance Requirements; Requirements of the Erosion, Sedimentation and Pollution Control Plan; Vegetative and Structural Measures for Erosion and Sedimentation Control. A "Qualified Personnel Certificate" will be awarded upon completion to each attendee and will remain valid until December 31, 2006.	Developers, builders, contractors and local and state governments and their contractors	
Georgia Forestry Commission	Conduct forestry Best Management Practices educational training at Master Timber Harvester and continuing logger education programs, civic programs, and landowner meetings.	Foresters, timber buyers and loggers, site preparation contractors, landowners	Continuous
Fayette County Cooperative Extension Service	The following programs are underway as part of the County's MS4 NPDES permit: elementary school training, residential yard maintenance, non-point source pollution, residential septic tank maintenance, water conservation, and illicit discharge and waste disposal	Homeowners, businesses, elementary schools, environmental groups, County employees	Full implementation by 1/2005
Fulton County	Clean Water Campaign	General Public	Ongoing
Fulton County	Community watershed workshops	General Public	Ongoing
Fulton County	Stream clean ups	General Public	Ongoing
Fulton County	Adopt-A-Stream	General Public	Ongoing
Fulton County	Citizens participation program	General Public	Ongoing
Fulton County	Develop & submit print ads/public service announcements/press releases.	General Public	Ongoing
Fulton County	Conduct workshops at community meetings, reaching homeowners.	General Public	Ongoing
Fulton County	Conduct classroom demonstrations, reaching students.	General Public	Ongoing
City of Fairburn	"Fairburn Focus " City Newsletter covering stormwater issues	General Public	Continuous

IX. MILESTONES/ MEASURES OF PROGRESS OF BMPs AND OUTREACH

This table will be used to **track and report progress of management measures including BMPs and outreach**. Record milestone dates for:

- Accomplishment of management practices or activities
- Outreach activities
- Installation of BMPs

to attain water quality standards. Comment on the effectiveness of the management measure, how much support the measure was given by the community, what was learned, how the measure might be improved in the future, and any other observations made. This table can be "pulled out" of this template and used to report and track progress.

Table 8. MILESTONES

MANAGEMENT MEASURE	RESPONSIBLE ORGANIZATIONS	STATUS		COMMENT
		PROPOSED	INSTALLED	

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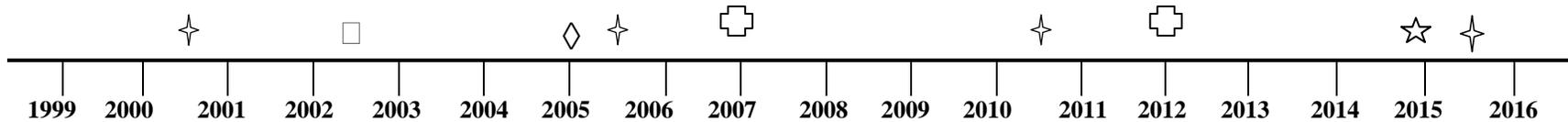
Federal Clean Water Act Section 404 (Ag and Forestry)	EPA (situations involving forestry are normally referred to the GFC to determine compliance with this regulation)		Continuous	GFC can report status on accomplishments or complaints investigated involving this act to the RDC as needed.
Memo to the Field: Application of BMPs to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast (Silviculture)	EPA/ US Army Corps of Engineers - (cases normally referred to GFC to make initial determination)		Continuous	GFC can provide status reports as needed
Federal Farm Bill (Swampbuster, Ag)	US Department of Agriculture Natural Resource Conservation Service		Continuous	Status reports can be provided as needed
GA Growth Planning Act (OCGA 12-2-8)	GA DNR, Department of Community Affairs, and local units of government		Continuous	GFC can determine applicability and BMP implementation for local units of government.
Georgia Forestry Commission Monthly BMP Assurance Examination	Georgia Forestry Commission (matters involving enforcement are generally referred to GA EPD)		Continuous	Status reports can be provided as needed
Georgia Water Quality Control Act (OCGA 12-5-20)	GA DNR EPD		Continuous	GFC investigates and mediates silvicultural complaints on behalf of EPD. Unresolved complaints are turned over to EPD for enforcement. Status reports can be provided to RDC as needed.
Georgia's Best Management Practices	Georgia Forestry Commission (matters involving enforcement are generally referred to GA EPD)		Continuous	
Adopted Georgia SWCC Model Erosion Control Ordinance	Fayette County Engineering Department		Feb 2004	Ordinance revision
District-Wide Watershed Management Plan	Metropolitan North Georgia Water Planning District and Local Governments in 16 county District Area		2004 & 2005	Refer to the District-wide Watershed Management Plan
Phase I Permit # GAS000115	City of Fairburn		1995	Refer to Annual Report
Phase II MS4 NPDES Permit	Fayette County		The General Permit was effective 12/9/02. Fayette County's Draft NOI was submitted to the State EPD in March 2003	Refer to Annual Report

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Phase II MS4 NPDES Permit	Fayette County Cooperative Extension Service		Full implementation by 1/2005	The following programs are underway as part of the Fayette County's MS4 NPDES permit: elementary school training, residential yard maintenance, non-point source pollution, residential septic tank maintenance, water conservation, and illicit discharge and waste disposal
Clean Water Campaign	Fulton County		Ongoing	

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 Georgia EPD.



- Scheduled EPD basin Group Monitoring ✦
- TMDL Completed □
- TMDL Implementation Plan Accepted ◇
- Evaluation of implementation plan/water quality improvement ⊕
- Project Attainment ☆

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Date Submitted to EPD:	August 30, 2004	Revision:	#1

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 or Section 604(b) of the Federal Water Pollution Control Act, as amended.

APPENDIX A
STAKEHOLDERS

List the names, addresses, telephone numbers, and e-mail addresses for local governments, agricultural or commercial forestry organizations, significant landholders, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

NAME/ORG	ADDRESS	CITY	STATE	ZIP	PHONE	E-MAIL
Town of Tyrone	881 Senoia Road	Tyrone	GA	30290	770-487-4038	
Charles Jarrard / CHCA	13175 Hutcheson Ferry Road	Palmetto	GA	30268	770-463-4451	vbjaar@wmconnect.com
David Nebergall / Tyrone Plan. Comm.	100 Meadowood Lane	Tyrone	GA	30290		david.nebergall@worldspan.com
Ray Clark / Pavestone Company	169 Peggy Lane	Tyrone	GA	30290	770-306-9691	ray.clark@pavestone.com
Dennis Chase / Line Creek Assoc. of Fayette County	290 Crabapple Road	Fayetteville	GA	30215	770-719-8425	dechase65@hotmail.com
Ron Feldner / ISE					770-461-4292	rfeldner@intse.com
Andrea Pinabell / Stormwater Management Inc.	430 Lindbergh Drive #F3	Atlanta	GA	30305	404-846-5785	andreap@stormwaterinc.com
Ben R. Jordan / The Coca-Cola Company	P.O. Box 1734	Atlanta	GA	30301		bjordan@na.ko.com
Bruce W. Thurlby / Archaea Solutions, Inc.	100 Lloyd Avenue, Suite D	Tyrone	GA	30290	770-487-5303	bruce.thurlby@archaseasolutions.com
Bryan Barrett / USDA	355 East Hancock Ave	Athens	GA	30601	706-546-2039	bryan.barrett@ga.usda.gov
Buddy Belflower / USDA/NRCS	734 Crescent Dr	Gainesville	GA	30501	770-536-6981	buddy.belflower@ga.usda.gov
Chad Knudsen / Ecological Solutions					770-998-7848	chadknudsen@ecologicalsolutions.net
Chrissy Marlowe / GA DCA	225 West Broad St.	Athens	GA	30601	706-425-3077	cmarlowe@dca.state.ga.us
Chuck Budinger / Corporate Env. Risk Management	2116 Monroe Drive, Suite 110	Atlanta	GA	30324	678-999-0173	cbudinger@cerm.com
David Smith	740 Hunterhill Court	Roswell	GA	30075	770-641-3096	davidsmith@ecologicalsolutions.net
David Smith / Ecological Solutions	630 Colonial Park Drive, Suite 200	Roswell	GA	30075	770-998-7848	davidsmith@ecologicalsolutions.net
Duncan Cottrell / Adopt-A-Stream Coordinator / Upper Etowah River Alliance					770-735-2778	duncancottrell@yahoo.com
Geneva Nelson / Foundation for Global Community	899 Chippendale Lane	Norcross	GA	30093	770-564-2730	genevaan@yahoo.com
Jason Barringer	2446 Fallview Terrace	East Point	GA	30344		forrain2@hotmail.com
Kevin Johnson / The Trust for Public Land	1447 Peachtree Street Suite 601	Atlanta	GA	30309	404.873.7306	kevin.johnson@tpl.org

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Kimberly Aji / Jordan Jones and Goulding	6801 Governors Lake Parkway	Norcross	GA	30071	6783330232	kaji@jig.com
Linda MacGregor / McKenzie MacGregor Incorporated	3455 Lawrenceville Suwanee Road, Suite A	Suwanee	GA	30024	678-546-9450	lmacgregor@mckmacg.com
Max Walker	941 Pine Roc Drive	Stone Mountain	GA	30083	770/469/4786	MAXWALKER@mindspring.com
Rose Mary Seymour / UGA - Griffin Campus	1109 Experiment St	Griffin	GA	30223	770 229-3214	rseymour@griffin.uga.edu
Georgia Forestry Commission	P.O. Box 819	Macon	GA	31202	478-751-3485	
Georgia Forestry Association	500 Pinnacle Court, Ste. 505	Norcross	GA	30071	770-416-7621	
Southeastern Wood Producers	P.O. Box 9	Hilliard	FL	32046	904-845-7133	
American Forest & Paper Assoc.	1111Nineteenth Street, NW, Suite 800	Washington	DC	20036	1800-878-8878	info@afandpa.org

APPENDIX B
UPDATES TO THIS PLAN

Describe any updates made to this plan. Include the date, section or table updated, and a summary of what was changed and why.

TMDL Watershed Land Cover Matrix (Aggregated ARC Land Cover Categories)

Aggregated Category	Description of Original ARC Categories	ARC Land Cover Code
<i>Commercial</i>	Commercial and Services	12
	Industrial and Commercial Complexes	15
	Intensive Institutional	121
<i>Industrial/Institutional</i>	Industrial	13
<i>Transportation & Utilities</i>	Transportation, Communication & Utilities	14
	Limited Access Highways	145
<i>Agricultural Lands</i>	Agriculture-Cropland and Pasture	21
	Agriculture-Orchards, Vineyards and Nurseries	22
	Agriculture-Confined Feeding Operations	23
	Agriculture-Other	24
<i>Forest / Open Space</i>	Forest	40
	Golf Courses	171
	Cemeteries	172
	Parks	173
<i>Water / Wetlands</i>	Rivers	51
	Reservoirs, Lakes, and Ponds	53
	Wetlands	60
<i>Transitional & Extractive Lands</i>	Other Urban	17
	Bare Exposed Rocks	74
	Quarries, Gravel Pits, and Strip Mined	75
	Transitional Areas	76
<i>Low-Density Residential</i>	Low Density Single Family Residential	111
<i>Medium-Density Residential</i>	Medium Density Single Family Residential	112
<i>High-Density Residential</i>	High Density Residential	113
	Multifamily Residential	117
	Mobile Home Parks	119