

Alcovy River Watershed (HUC10 #0307010307) TMDL Implementation Plan Narrative Gwinnett County, Georgia

Total Maximum Daily Load (TMDL) Implementation Plans are platforms for establishing a course of actions to restore the quality of impaired water bodies in a watershed. They are intended as a continuing process that may be revised as new conditions and information warrant. Procedures will be developed to track and evaluate the implementation of the management practices and activities identified in the plans. Once restored, appropriate management practices and activities will be continued to maintain the water bodies.

The Alcovy River Watershed (HUC10 #0307010307) is located in the upper portion of the Ocmulgee River Basin in the metro Atlanta area. The local governments with interest in the Section 305(b) / Section 303(d) listed stream segments in this HUC10 watershed include: Gwinnett County, and the cities of Lawrenceville and Dacula. The stream segments identified on Georgia Environmental Protection Division's 303(d) list in the Alcovy River HUC10 Watershed include: Cedar Creek, Hopkins Creek, and Shoal Creek. The 303 (d) listed stream segments of Cedar Creek, Hopkins Creek, and Shoal Creek are located in Gwinnett County, Georgia.

All three stream segments are listed for not meeting water quality standards for fecal coliform. Fecal Coliform bacteria are bacteria found in the intestinal tract of humans and animals. Its presence in streams, rivers, and lakes is an indicator of possible harmful pathogens. Data from USGS Monitoring Stations were used to develop the TMDL for each segment.

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 these stream segments in February 2002 that shows a reduction in fecal coliform levels is needed. The required reductions in Fecal Coliform loads are as follows: 52% for Cedar Creek, 53% for Hopkins Creek, and 73% for Shoal Creek.

Gwinnett County Department of Public Utilities staff identified the potential sources of pollution in these watersheds. The following potential pollution sources were identified for all three segments: urban runoff, leaking/failing septic systems, pet waste, hobby farms, wildlife, agriculture, and illicit connections. The Hopkins and Shoal Creek Segments have sanitary sewer service in their watersheds, so in addition to the previously stated potential sources, SSOs could be a potential source.

This implementation plan was developed with the help of representatives from the Gwinnett County Department of Public Utilities, Gwinnett County Board of Health, the City of Lawrenceville Water Department, and the City of Dacula. The Atlanta Regional Commission coordinated the public meetings and the input received from local stakeholders and technical advisory staff. Stakeholders were identified in this plan with the input of local governments and by searching the county's tax records to determine large landowners. We also used the U.S.

EPA's Enforcement and Compliance History Online (ECHO) website to search for large industries in the watershed. Other stakeholders listed in the plan were included because of their interest in the affected watershed at either the March or April public meetings. There were two initial public meetings in March 2003 to educate stakeholders about the TMDL process and to solicit input from local stakeholders. These meetings were followed up with another 2 meetings in April 2003 to discuss the draft implementation plans that were mailed to all the listed stakeholders. Comments and requested revisions to the draft plans have been considered in developing this final draft implementation plan.

The GA EPD will be conducting TMDL monitoring in the Ocmulgee River Basin in 2004. This data will be used to list and possibly delist stream segments. Gwinnett County currently operates a monitoring program as a part of their NPDES MS4 Permit, which includes Fecal Coliform and Dry Weather Screening. In mid-2003, Gwinnett County will begin a Fecal Coliform Monitoring Program to monitor the status of the 303(d) listed stream segments in unincorporated Gwinnett County. This program is based on a monitoring plan that has been approved by GA EPD and meets all requirements for monitoring done to delist a stream segment.

A portion of the county's and cities' management measures such as implementation of the Gwinnett County Stormwater Management Plan are based on their NPDES Phase I Municipal Separate Storm Sewer System (MS4) Permit requirements. Other management measures included in the plan are voluntary such as Gwinnett County's septic to sewer transition program. The Gwinnett County Department of Public Utilities has an extensive public education / outreach program in place to educate the general public about water quality concerns. The program includes a range of activities such as educational bill inserts, educational brochures, and conducting activities for students in the county's school system. In addition Gwinnett County Department of Public Utilities also maintains an educational website (www.gwinnettstormwater.com) and participates in the Clean Water Campaign (www.cleanwatercampaign.com). An active Adopt-A-Stream program and storm drain stenciling program operate in unincorporated Gwinnett County. The Cities of Lawrenceville and Dacula are currently utilizing the educational materials developed by the Gwinnett County Department of Public Utilities in their own educational programs. All of these educational programs are considered on-going projects.

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

**STATE OF GEORGIA
REVISED TMDL IMPLEMENTATION
PLAN
WATERSHED APPROACH**

Local Watershed Governments
ATLANTA REGIONAL COMMISSION
Gwinnett County
City of Lawrenceville
City of Dacula

TMDL Implementation Plans are platforms for establishing a course of action to restore the quality of impaired water bodies in a watershed. They are intended as a continuing process that may be revised as new conditions and information warrant. Procedures will be developed to track and evaluate the implementation of the management practices and activities identified in the plans. Once restored, appropriate management practices and activities will be continued to maintain the water bodies. With input from appropriate stakeholder groups, a TMDL Implementation Plan has been developed for a cluster of impaired water bodies/streams and the corresponding pollutant(s). The following impaired water bodies are located in the same watershed/sub-basin identified by a HUC10 code (Figure 1).

This Implementation Plan addresses an action plan, education/outreach activities, stakeholders, pollutant sources, and potential funding resources affecting the watershed. 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 (*measurable milestones*), (c) a monitoring plan to determine the efficiency of the management measures and measurable milestones, and (d) criteria to determine whether substantial progress is being made towards reducing pollutants in impaired waterbodies. 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. Following this section is information regarding individual impaired streams.

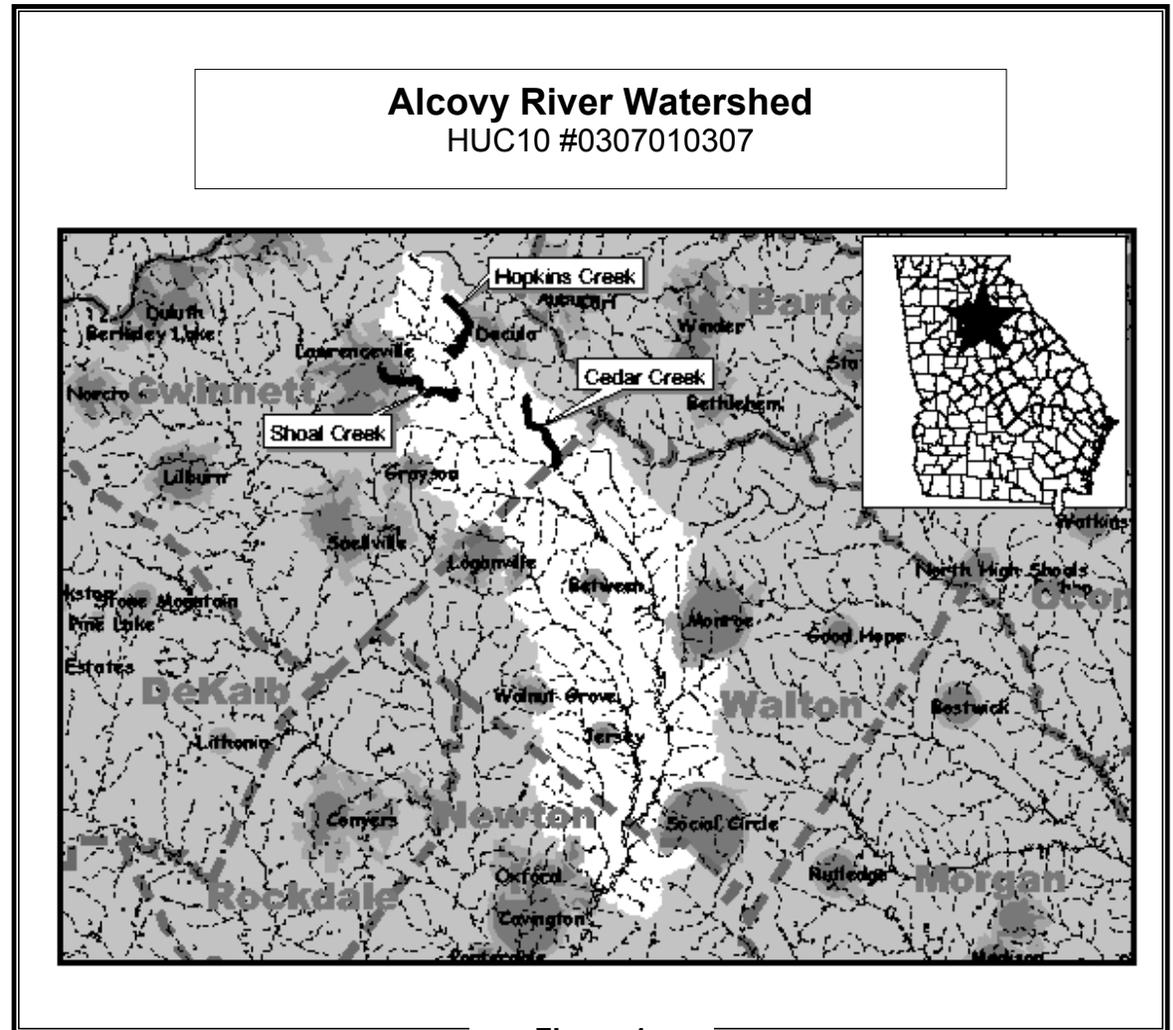


Figure 1

Impaired Waterbody*	Impaired Stream Location	Impairment
1. Cedar Creek	Headwaters to Alcovy River	Fecal Coliform (FC)
2. Hopkins Creek	Headwaters to Alcovy River	Fecal Coliform (FC)
3. Shoal Creek	Headwaters to Alcovy River, Lawrenceville	Fecal Coliform (FC)

*These Waterbody Numbers are referenced throughout the Implementation Plan.

Action Plan for Alcovy River Watershed

Watershed: Alcovy River
HUC10: #0307010307

POLLUTANT:	SOURCE:	EFFECT:	WHAT CAN I DO?	
			At Home: Community, School	At Work: Business, Government
<input type="checkbox"/> Dissolved Oxygen (DO)	<input type="checkbox"/> Industrial	<input type="checkbox"/> Habitat	- Routine & regular maintenance of septic systems - Properly dispose of pet waste	- Routine & regular maintenance of septic systems - Report sewer leaks or septic tank failure if found
<input checked="" type="checkbox"/> Fecal Coliform (FC)	<input checked="" type="checkbox"/> Urban	<input checked="" type="checkbox"/> Recreation		
<input type="checkbox"/> Sediment	<input type="checkbox"/> Agriculture	<input type="checkbox"/> Drinking Water		
<input type="checkbox"/> Metals	<input type="checkbox"/> Forestry	<input type="checkbox"/> Aesthetics		
<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) Urban Runoff, Leaking/Failing Septic Systems, Pet Waste, Hobby Farms, Wildlife, Agriculture, Illicit Connections			

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.

Responsible Organization Or Entity	Description	Impacted Waterbodies*	Target Audience	Anticipated Dates (MM/YY)
Unincorporated Gwinnett County	Stenciling Program	1, 2, 3	General Public	On going (Enacted: 9/98)
Unincorporated Gwinnett County	Utility bill inserts	1, 2, 3	General Public	On going (Enacted: 9/98)
Unincorporated Gwinnett County	Pet Waste Brochure	1, 2, 3	General Public	On going (Enacted: 10/00)
Unincorporated Gwinnett County	Pet Waste Sign Program in Parks	1, 2, 3	General Public	On going (Enacted: 2/03)
Unincorporated Gwinnett County	Adopt A Stream	1, 2, 3	General Public	On going (Enacted: 7/91)
Unincorporated Gwinnett County	Septic Tank Maintenance Folder	1, 2, 3	General Public	On going (Enacted: 12/02)
Unincorporated Gwinnett County	Educational School Activities	1, 2, 3	School age students	On going (Enacted: 9/94)
Unincorporated Gwinnett County	Menu for a Cleaner Environment	1, 2, 3	Restaurants	On going (Enacted: 11/98)
Unincorporated Gwinnett County	Septic Tank Workshop	1, 2, 3	General Public	2/03
Unincorporated Gwinnett County	Watershed Festival	1, 2, 3	General Public	10/01
Unincorporated Gwinnett County	Clean Water Campaign	1, 2, 3	General Public	On going (Enacted: 1/00)
Unincorporated Gwinnett County	Gwinnett County Storm Water Website www.gwinnettstormwater.com	1, 2, 3	General Public, Professional and Industry	On going (Enacted: 8/02)
City of Lawrenceville	Gwinnett County Storm Drain Stenciling Program	3	General population	Quarterly
City of Lawrenceville	Distribution of Gwinnett County stormwater educational information	3	General population	Ongoing
City of Dacula	Distribution of Gwinnett County stormwater educational information	2	General Public	Ongoing

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
GA EPD, Water Protection Branch	4220 International Pkwy, Suite 101	Atlanta	GA	30354	(404) 675-1751	
Gwinnett County Board of Commissioners (Chairman)	75 Langley Drive	Lawrenceville	GA	30045	(770) 822-7000	
Gwinnett County Department of Public Utilities	684 Winder Highway	Lawrenceville	GA	30045-5012	(678) 376-6949	leost@co.gwinnett.ga.us
Gwinnett County Board of Health	240 Oak Street	Lawrenceville	GA	30045-5012	(770) 963-5132	vggoins@dhr.state.ga.us
Gwinnett County Public Schools (Superintendent)	52 Gwinnett Drive	Lawrenceville	GA	30045	(770) 963-8651	
Gwinnett County Extension Service	750 South Perry Street, Suite 400	Lawrenceville	GA	30045	(678) 377-4020	rbrannen@uga.edu
GA Adopt-A-Stream	4220 International Pkwy, Suite 101	Atlanta	GA	30354	(404) 675-1636	

Watershed: Alcovy River
HUC10: #0307010307

Name/Organization	Address	City	State	Zip	Phone	E-Mail
NRCS	P.O. Box 8	Monroe	GA	30655	(770) 267-8363 Ext. 3	jose.pagan@gamonroe.fsc.usda.gov
GA Soil & Water Conservation Comm.	1500 Klondike Rd., Suite A109	Conyers	GA	30094	(770) 761-3020	kshahlaee@gaswcc.org
Dacula City Council	P.O. Box 400	Dacula	GA	30019	(770) 963-7451	daculacityclerk@charter.net
Dacula High School	123 Broad Street	Dacula	GA	30019	770-963-6664	
Lawrenceville City Council	70 South Clayton Street	Lawrenceville	GA	30046	(770) 963-2414	
City of Lawrenceville Department of Planning and Zoning	70 South Clayton Street	Lawrenceville	GA	30046	(770) 963-2414	
City of Lawrenceville Water Department	70 South Clayton Street	Lawrenceville	GA	30046	(770) 822-5741	
Dolco Packaging	252 Hosea Road	Lawrenceville	GA	30045	(770) 963-6191	
SMI Georgia Rebar	251 Hosea Road	Lawrenceville	GA	30045	(770) 963-6251	

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 the streams on the 303(d) list will be provided upon request.

Waterbody Name #1	Location	Miles/Area Impacted	Use Classification	Partially Supporting/ Not Supporting (PS/NS)
Cedar Creek	Headwaters to Alcovy River	4 miles	Fishing	PS
Primary County	Secondary County	Second RDC		Source (Point/ Nonpoint)
Gwinnett				Urban Runoff (UR)
Pollutants	Water Quality Standards	Required Load Reduction	TMDL ID	Date TMDL Established
FC	1,000 per 100 ml (geometric mean Nov-April) and 200 per 100 ml (geometric mean May-Oct)	52%		February 2002
Waterbody Name #2	Location	Miles/Area Impacted	Use Classification	Partially Supporting/ Not Supporting (PS/NS)
Hopkins Creek	Headwaters to Alcovy River	4 miles	Fishing	NS
Primary County	Secondary County	Second RDC		Source (Point/ Nonpoint)
Gwinnett				Urban Runoff (UR)
Pollutants	Water Quality Standards	Required Load Reduction	TMDL ID	Date TMDL Established
FC	1,000 per 100 ml (geometric mean Nov-April) and 200 per 100 ml (geometric mean May-Oct)	53%		February 2002

Waterbody Name #3	Location	Miles/Area Impacted	Use Classification	Partially Supporting/ Not Supporting (PS/NS)
Shoal Creek	Headwaters to Alcovy River, Lawrenceville	5 miles	Fishing	NS
Primary County	Secondary County	Second RDC	Source (Point/ Nonpoint)	
Gwinnett			Urban Runoff (UR)	
Pollutants	Water Quality Standards	Required Load Reduction	TMDL ID	Date TMDL Established
FC	1,000 per 100 ml (geometric mean Nov-April) and 200 per 100 ml (geometric mean May-Oct)	73%		February 2002

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)

Pollutant	Sources of Pollutants	Description of Contribution To Impairment	Impacted Waterbodies*
FC	Urban Runoff	Non-point Source	1, 2, 3
FC	Leaking/Failing Septic Systems	Leakage from septic system as a result of failure	1, 2, 3
FC	Pet Waste	Non-point Source	1, 2, 3
FC	Hobby Farms	Non-point Source	1, 2, 3
FC	Wildlife	Non-point Source	1, 2, 3
FC	Agriculture	Non-point source	1, 2, 3
FC	SSO	Overflow due to grease and trash blockage	2, 3
FC	Illicit Connections	Cross connections of sanitary sewer to storm sewer.	1, 2, 3

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.

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Gwinnett County Storm Water Management Ordinance	Gwinnett County	Ordinance to address non-point source pollution	9/1996	Enforced	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Pet Waste, Urban Runoff	1, 2, 3	Gives the inspectors a way to address non-point source pollution that is discharged into the MS4 system.

Measurable Milestones	Schedule		Comments
	Start	End	
Industrial inspections and illicit discharge investigations	9/96	On-going	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Gwinnett County Development Regulations	Gwinnett County	Regulations modified to include water quality and quantity requirements in response to county's Watershed Protection Plan	1/2001	Enforced	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Non-point source	1, 2, 3	Passing regulations that require developers and contractors to address water quality and quantity issues as they relate to changes in land cover has helped reduce nonpoint source pollution from new developments

Measurable Milestones	Schedule		Comments
	Start	End	
Water quality requirements added in Big Haynes Basin	11/97	1/2001	First county in the State of Georgia to required that water quality be addressed on new developments
Increase requirements for water quality and quantity, along with channel protection requirements	4/1999	1/2001	Modifications to the existing regulations and added channel protection.
Water Quality requirements changed County wide	1/2001	Ongoing	The regulations first adopted in 1997 for the Big Haynes Basin were expanded to include the remaining portions of Unincorporated Gwinnett County.

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Septic to Sewer Transition Program	Gwinnett County Department of Public Utilities	Program to facilitate the connection of subdivisions, currently served by septic systems, to the sanitary sewer.	November 2001	In-progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Failing Septic Systems	1, 2, 3	Provides a procedure for a community to connect to the sanitary sewer

Measurable Milestones	Schedule		Comments
	Start	End	
Passed by Gwinnett County Board of Commissioners. Citizen petitions currently being processed as they are received.	11/01	On-going	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Phase I – MS4 Permit	Gwinnett County Department of Public Utilities	The State of GA has issued Gwinnett County with a permit to operate the County’s Municipal Separate Storm Sewer System (MS4). As a part of this permit the County has developed and is implementing a Storm Water Management Program (SWMP). Major aspects of the permit and the SWMP include public education, illicit discharge detection and elimination, source identification activities, water sampling and reporting.	6-15-1994	In-progress	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Multiple	Non-point sources	1, 2, 3	Program aims to ensure the development and implementation of water quality protection programs, which are directed by the State EPD. Effectiveness is reported on annually by report to EPD.

Measurable Milestones	Schedule		Comments
	Start	End	
Annual reports submitted by anniversary date of permit each year: June 15.	6-15-1994	On-going	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Best Management Practices (BMP) Inspections	Gwinnett County	Inspection of water quality and quantity BMP's to insure they are properly maintained.	4/99	In-progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Non-point sources	1, 2, 3	This program insures that the BMP's are maintained to insure that the water quality and quantity benefits continue.

Measurable Milestones	Schedule		Comments
	Start	End	
Require maintenance agreements and 18 month maintenance bond at the time of construction	2000	On going	Program will help property owners understand that these BMP's must be maintained to continue providing water quality and quantity benefits.
Annual Field Inspections	2002	On going	Annual Inspections are done to insure that required maintenance is being done.

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Watershed Protection Plan	Gwinnett County	Assessment of watersheds and suggested protection measures	5/2000	In-progress	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
FC	Non-point source	1, 2, 3	

Measurable Milestones	Schedule		Comments
	Start	End	
Passed Gwinnett County Board of Commissioner and Approved by the EDP	5/1998	5/2000	Updated Development Regulation and Start Master Planning

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Watershed Master Planning	Gwinnett County	Develop Capital Improvement Plans (CIP) for watersheds	10/2000	In-progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
FC	Non-point source	1, 2, 3	Capital project will identify BMP's for retrofit and streams for restoration which should reduce non-point source pollution.

Measurable Milestones	Schedule		Comments
	Start	End	
Master Planning – 1 basin on average per year	10/2000	On-going	Basin CIP plans to be implemented as funding is available

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Sanitary Sewer Evaluation System	Gwinnett County DPU	Inspection program evaluates condition of manholes, and pipes (smoke test and TV). Walking easements looking for problems.	1987	In-Progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
FC	Sanitary Sewer System	2, 3	Effective in identifying system areas in need of rehabilitation. Rehab. Includes relining, pipe bursting, joint repair and seal, root control and easement clearing. Large reduction in I & I has been seen.

Measurable Milestones	Schedule		Comments
	Start	End	
Inspection Program	1987	On-going	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Grease Trap Inspection Program	Gwinnett County DPU	Inspection of grease traps	6/1999	In-progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
FC	SSO due to excess grease in sanitary sewer lines.	2, 3	Inspections of grease traps should reduce the amount of grease in sanitary sewer system reducing SSO's

Measurable Milestones	Schedule		Comments
	Start	End	
Inspections	7/1999	On-going	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Phase I – MS4 Permit	City of Dacula as Co-permittee	As a Co-permittee with Gwinnett County (GAS000122), the City is required to have a comprehensive stormwater program, which includes public education and participation, illicit discharge detection and elimination, permitting and reporting, and program implementation. Stream inspections are a component of this program.	6-15-1994	In-progress	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Multiple	Non-point sources	2	Program aims to ensure the development and implementation of water quality protection programs, which are directed by the State EPD. Effectiveness is reported on annually by report to EPD.

Measurable Milestones	Schedule		Comments
	Start	End	
Annual reports submitted by anniversary date of permit each year: June 15.	6-15-1994	On-going	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
City of Dacula Development Regulations	City of Dacula	Regulations modified to include water quality and quantity requirements in response to Gwinnett County's Watershed Protection Plan	7/2001	Enforced	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Non-point source	2	Passing regulations that require developers and contractors to address water quality and quantity issues as they relate to changes in land cover has helped reduce nonpoint source pollution from new developments

Measurable Milestones	Schedule		Comments
	Start	End	
Increase requirements for water quality and quantity, along with channel protection requirements	7/2001	Ongoing	Modifications to the existing regulations and added channel protection.

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Best Management Practices (BMP) Inspections	City of Dacula	Inspection of water quality and quantity BMP's to insure they are properly maintained.	7/2001	In-progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Non-point sources	2	This program insures that the BMP's are maintained to insure that the water quality and quantity benefits continue.

Measurable Milestones	Schedule		Comments
	Start	End	
Require maintenance agreements and 18 month maintenance bond at the time of construction	2001	On going	Program will help property owners understand that these BMP's must be maintained to continue providing water quality and quantity benefits.
Annual Field Inspections	2002	On going	Annual Inspections are done to insure that required maintenance is being done.

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Identifying and Rectifying failing Septic Systems using Color Infrared Aerial Photography	Gwinnett County, Gwinnett County Board of Health	319 Grant to identify failing septic systems using color infrared aerial photography.	3/11/2003	In-progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Failing Septic Systems	1, 2, 3	Method has been used effectively in the past by other jurisdictions.

Measurable Milestones	Schedule		Comments
	Start	End	
See 319 Grant document	3/03	7/06	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
IAW O.C.G.A. 290-5-26	Gwinnett County Board of Health.	Rules and regulations for installation and repair of on-site sewage management systems.	June 30, 1980	Enforced	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Septic Systems	1, 2, 3	This program ensures septic systems are installed and repaired in accordance with established procedures and specifications.

Measurable Milestones	Schedule		Comments
	Start	End	
Continue the process of reviewing the installation of septic systems as a part of the development review process	1980	Ongoing	1.) Gwinnett County has approximately 75,000 addresses that utilize onsite wastewater management systems for sewage disposal. The Board of Health has issued more than 92,000 permits for new installations, repairs and additions for these properties. 2.) Only local governments can regulate the number of systems in their communities. Also, only local governments can enact ordinances requiring maintenance of septic systems. Improvements can be attributed to new and less expensive technologies that essentially function as sewage treatment plants. They emit effluent clean enough that some states allow surface discharge. Georgia does not.

Continue to identify and respond to instances of septic system failure. Enforcement responses to failing septic systems are by complaint only. Home and business owners who don't have a complaint lodged against them can consult with Environmental Health about their failing systems and can pay for an onsite assessment for repair.	1980	Ongoing	
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------	---------	--

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Phase I MS4 Municipal Stormwater Permit	City of Lawrenceville	As a Co-permittee with Gwinnett County (GAS000122), the City is required to have a comprehensive stormwater program, which includes public education and participation, illicit discharge detection and elimination, permitting and reporting, and program implementation. Stream inspections are a component of this program.	September 1997	In-progress	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	3	The goals of this program are designed to improve water quality conditions and/or prevent further degradation of water quality and biotic integrity in the impaired stream corridor.

Measurable Milestones	Schedule		Comments
	Start	End	
Municipal inspections to detect and eliminate illicit discharges and connections are performed on a continual basis based on degree of hazard.	09/97	On-going	
Preparation of Annual Report	1998	On-going	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Wellhead Protection Ordinance	City of Lawrenceville Water Department, City of Lawrenceville Department of Planning and Zoning	This ordinance was designed to regulate activities that threaten the quality of the City's groundwater supply, including the negative effects of septic tank failure.	October 2000	Enforced	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff, Leaking Septic Tanks	3	This ordinance is intended to protect the groundwater and control land use in the area surrounding the city's drinking water wellhead.

Measurable Milestones	Schedule		Comments
	Start	End	
Regulate the use of septic tanks and drainfields in the wellhead protection zone.	10/00	On-going	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Small Water Supply Watershed Ordinance	City of Lawrenceville Water Department, City of Lawrenceville Department of Planning and Zoning	Ordinance was designed to protect the City's drinking water supply watershed. This ordinance establishes stream buffers and prohibits the use of septic tanks and drainfields within the stream buffer.	November 2000	Enforced	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff, Leaking Septic Tanks	3	This ordinance is intended to protect the surface drinking water source for the city and control land use in the area surrounding the city's drinking water intake.

Measurable Milestones	Schedule		Comments
	Start	End	
Review of development plans for compliance with stream buffer requirements	11/02	On-going	
Review of development plans for compliance with septic tank drainfield requirements.	11/02	On-going	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
City of Lawrenceville Drainage Regulations of 1989	City of Lawrenceville Water Department, City of Lawrenceville Department of Planning and Zoning	Ordinance was designed to establish storm water management policy for the City; allowing the regulation of activities that threaten the water quality due to storm water runoff.	October 2000	Enforced	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	3	To reduce the amount of prohibited activities in and around the municipal storm sewer system to reduce stormwater pollution.

Measurable Milestones	Schedule		Comments
	Start	End	
Reduce the amount of prohibited activities in and around the storm sewer system through proper review of local development plans.	10/00	On-going	

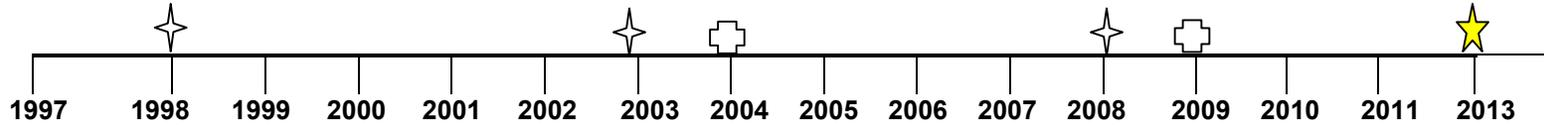
POTENTIAL FUNDING SOURCES

The identification and discussion of dedicated funding is important in determining the economic feasibility of the above-mentioned management measures.

Funding Source	Responsible Authority	Status	Anticipated Funding Amount	Impacted Waterbodies*
Gwinnett County	Gwinnett County Board of Commissioners	On-going	To Be Determined	1, 2, 3
319 Grants	Gwinnett County Board of Commissioners /EPD/EPA	On-going	To Be Determined	1, 2, 3
General Fund	City of Dacula	On-going	To Be Determined	2
General Fund	City of Lawrenceville	On-going	To Be Determined	3

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	
TMDL Monitoring	GA EPD, Water Protection Branch	1, 2, 3	FC	TMDL Evaluation / Monitoring data for Georgia's 305(b)/303(d) List	2004	2005	Proposed
NPDES MS4 Program	Gwinnett County	1, 2, 3	FC	NPDES MS4 Program – includes Fecal monitoring and Dry Weather Screening. MS4 sampling is completed in accordance with the ARC's monitoring plan which was approved by EPD and that includes a QA/QC component.	9/1996	Ongoing	Current
Fecal Coliform Monitoring Program	Gwinnett County	1, 2, 3	FC	Fecal Coliform Monitoring Program. Monitoring under this program is completed in accordance with an EPD approved Sampling and Quality Assurance Plan.	6/2003		Proposed

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) _____

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

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.

- Regulatory controls or activities installed (ordinances, laws) _____

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

COMMENTS

The Cedar Creek listed in this document is located in eastern Gwinnett County on the Walton County line. There is another Cedar Creek located northeast of Lawrenceville. Both Cedar Creeks have been monitored and were found to not meet water quality standards for Fecal Coliform. GA EPD has listed the Cedar Creek near Lawrenceville on the 2002 303(d) list but, US EPA developed a TMDL for the Cedar Creek near Walton County. Based on guidance from GA EPD we developed an implementation plan for the Cedar Creek with a TMDL. We are taking no action on the Cedar Creek near Lawrenceville at this time. GA EPD will be responsible for addressing the Implementation Plan for the Cedar Creek near Lawrenceville, GA. Further explanation of this situation can be obtained through Mary Gazaway at (404) 675-1745.

Watershed: Alcovy River
HUC10: #0307010307

Prepared By: Matthew C. Harper
Agency: Atlanta Regional Commission
Address: 40 Courtland Street, NE
City: Atlanta ST: GA ZIP: 30303
E-mail: mharper@atlantaregional.com
Date Submitted to EPD: April 30, 2003

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.

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

TOGETHER WE CAN MAKE A DIFFERENCE!