

**Revised TMDL Implementation Plan
HUC 0307010307 - Alcovy River and Big Flat Creek
January, 2003**

HUC 0307010307 is located in portions of Gwinnett, Walton, and Newton counties and the cities of Monroe, Social Circle, Loganville, Between, Walnut Grove, and Jersey.

The stream segments of concern in this TMDL implementation plan include the Alcovy River from Cedar Creek to Bay Creek and Big Flat Creek from its headwaters to the confluence with Flat Creek. The primary jurisdictions that drain to the segments of concern include Walton and Gwinnett counties and the cities of Loganville and Between.

The pollutant of concern in all cases is fecal coliform. The streams are listed as “not supporting” its designated use for fishing (Big Flat Creek) or fishing/drinking water (Alcovy River).

The streams were listed on the Georgia 303(d) list of impaired water bodies after sampling events in 1999. A Total Maximum Daily Load was established by EPA for the Upper Ocmulgee river in February, 2002, that recommends a reduction in the fecal coliform loading on the stream of 57% on the Alcovy River and 15% on Big Flat Creek.

Land use in the watershed is primarily forest and pasture, but the area is undergoing rapid urbanization with increasing subdivision development.

Input from stakeholders indicated the following information about the watershed:

- Approximately 10% to 20% of agricultural cattle operations have animals fenced out of the streams. This is part of the EQIP program and the development of Nutrient Management Plans (NMP). It is expected that another 20% will be added within the next five years, depending on resources from the agricultural support agencies (NRCS, Agricultural Extension, etc.). It is expected that approximately 50% of existing farms will be phased out with the aging of the owner-operators, because there is little interest among the next generation in continuing economically viable agriculture in the area.
- There are many smaller “hobby farms” in the basin that generally do not receive attention from, and do not seek out the assistance of, the agricultural support agencies. They are not susceptible to matching grant programs or the NMP program because they are not operated for profit, so there is no payback of investment in fencing, feeding facilities, etc.
- Poultry farms usually have stack houses, NMP’s, utilize advice on land application rates of chicken manure, and setbacks and buffers on streams. About 80% of farms comply with these BMP’s, and education is continuing. Regulation of chicken litter distribution is expected soon.

- New rules on confined animal feeding operations (CAFO's) mandate a waste management plan and, for some, lagoons for treating waste. The rules were submitted for public review in November, 2002, and should become effective this year for a five-year period.
- It is not known how many illicit connections to storm drains, failed septic tanks, or cases of outright lack of treatment there may be in the basin.
- There are no local ordinances regulating the management of household pets or kennel waste.

Implementation

There are several on-going actions either in place or planned by the communities. Besides the agricultural initiatives mentioned above, local governments are in the midst of changing their management of storm water runoff. These actions include the following.

Walton County has adopted, within the past year, new land development ordinances that include several items known to reduce fecal coliform runoff and pollution:

- A storm water management ordinance and revised sedimentation control ordinance.
- Increased stream buffers from 25 ft to 50 ft county wide and to 100 ft on streams in small water supply watersheds, including the Alcovy River.
- Detention facilities capable of treating runoff from all new development, based on the Georgia Stormwater Manual.
- Regulated design of parking lot islands to maximize infiltration and minimize runoff.
- Maximum impervious surface limitations in small water supply watersheds, including the Alcovy.

Many of these revisions were brought about through the partial implementation of the Alcovy River Watershed Protection Plan, produced in 2000 by a multi-county cooperative project involving Gwinnett, Walton, Newton, and Jasper counties.

The City of Loganville has undertaken, or plans to undertake, significant water quality initiatives. These actions include the following:

- NPDES Phase II Storm Water planning and implementation. The plan is under way.
- The city has an Infiltration and Inflow prevention program involving active surveys for leaks. As part of the program, streams in the City of Loganville are being surveyed. Several illicit discharges and sources of pollution have been discovered and removed.
- An infrastructure mapping project to identify all sewer and storm sewer locations and facilities is being planned.

- A watershed assessment and protection plan is being prepared as a requirement for their recently updated NPDES waste water discharge permit.
- Development of a storm water utility to fund storm water treatment facilities is under discussion.
- Some method of required septic tank inspections is under discussion.

Gwinnett County has developed TMDL implementation strategies that include:

- Implementation of NPDES Phase I and Phase II Stormwater permit implementation.
- Storm water management ordinance
- Revised land development ordinances emphasize water quality
- Sewer line leak detection and repair
- Failed septic tank detection project

The Metropolitan North Georgia Water District has adopted a suite of water quality ordinances for incorporation into a district water quality management plan. Walton County and its cities are within the District, and therefore will be adopting the ordinances within the time frame of this implementation plan. Ordinances include Post Development Storm Water Management, Floodplain Management, Open Space, Illicit Discharge and Illegal Connection, and Litter Control. The District will also adopt a strategy for implementation of required and recommended actions. It will include a water quality monitoring plan to measure the success of the plan. The Watershed Management and Implementation Plan can be found at its web site <http://www.northgeorgiawater.org>.

Walton County operates a Clean and Beautiful office, which is active in educating schools, civic groups, and the general public on water-quality related issues. The program sponsors an Adopt-a-Stream program.

The Atlanta Regional Commission is simultaneously undertaking development of TMDL Implementation Plans for stream segments and drainages in its counties. ARC's approach differs somewhat from the Northeast Georgia Approach, in that the activities are being undertaken county by county, i.e. all of the relevant watersheds in each county are addressed at once. Gwinnett County's TMDL implementation activities have not been developed at this time. They will be incorporated into this plan as they are developed.

It was the consensus of stakeholders that the specific sources of fecal coliform must be identified before action is required. Likely sources of fecal coliform identified were failed or absent septic tanks, leaking sewer lines, agricultural runoff, agricultural pollution from cattle with direct access to streams, pet and kennel discharges, "hobby farms" keeping large animals in direct contact with the streams, and miscellaneous runoff from storm water from urbanized areas. The stakeholders recommended that the extent of the contribution from specific sources be identified before "remedial" action is advised.

The plan therefore identifies the following steps for load reduction:

- Continued implementation of recent and proposed ordinance adoptions and revisions.
- Detailed sampling of the streams to localize the sources of pollutant, beginning with a general survey and following on with more and more localized and detailed sampling until specific sources can be identified.
- Implementation of BMP's specific to the identified sources, including septic tank maintenance, sewer leak detection, Nutrient Management Plan implementation on the remaining agricultural operations, a kennel ordinance, a large-animal density ordinance (or equivalent provisions in existing zoning ordinances).
- The development of a storm water utility to fund BMP's for existing and future development was discussed, but not adopted as part of the plan at this time.
- Implementation of a stream monitoring program based on the regime to be adopted by the North Georgia Metropolitan Water District and the Alcovy River Watershed Protection Plan.
- Ongoing educational efforts will proceed under the auspices of Walton County, the NRCS, Agricultural Extension, and the cities. These will include identifying and contacting "hobby farm" owners and educating them about stream buffers and limiting access; continued promotion of agricultural BMP's; distribution of brochures on septic tank maintenance; continuous activities of the Walton County Clean and Beautiful and Adopt-a-Stream programs involving citizens and the community.
- The effectiveness of the implementation plan should be evaluated after five years by incorporating the implementation activities that have taken place, updated land use information, and additional monitoring data into the BASINS model with which the TMDL was prepared.
- The proposal was made to re-form the multi-county Upper Ocmulgee Soil and Water Conservation District, or some council of a similar kind, to coordinate water quality activities in Newton, Butts, Rockdale, Henry, and Walton counties. No specific action was decided on at this time.

**STATE OF GEORGIA
REVISED TMDL
IMPLEMENTATION PLAN
WATERSHED APPROACH
Ocmulgee River Basin**

Local Watershed Governments
Northeast Georgia RDC
Walton County
City of Loganville

TMDL Implementation Plans are platforms for establishing a course of actions to restore the quality of impaired water bodies in a watershed. They are intended as a continuing process that may be revised as new conditions and information warrant. Procedures will be developed to track and evaluate the implementation of the management practices and activities identified in the plans. Once restored, appropriate management practices and activities will be continued to maintain the water bodies. **With input from appropriate stakeholder groups, a TMDL Implementation Plan has been developed for a cluster of impaired streams and the corresponding pollutants.** The impaired streams are located in the same 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 sources affecting the sub-basin. 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 segments.

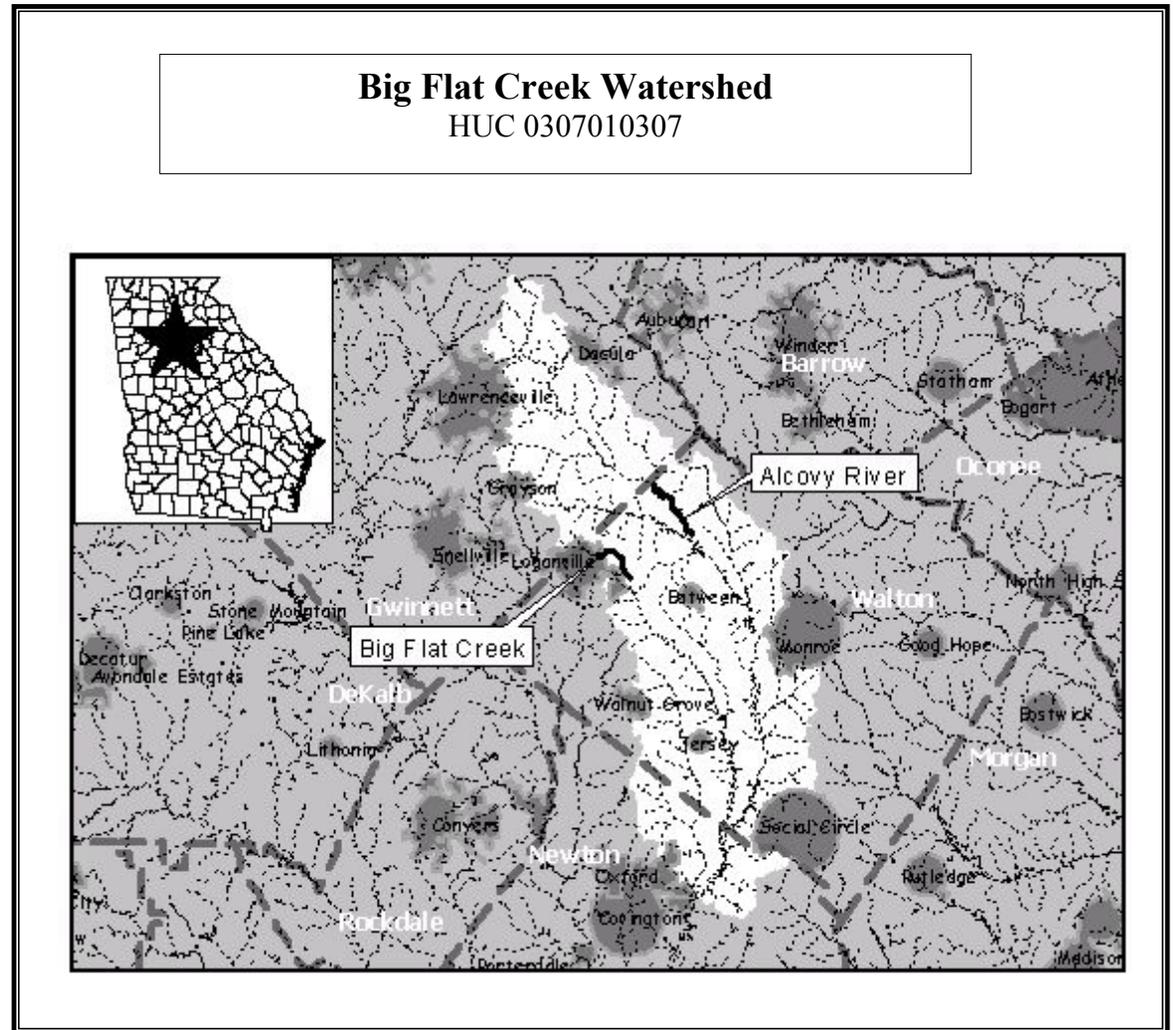


FIGURE 1

Impaired Waterbody*	Impaired Stream Location	Impairment
1. Alcovy River	Cedar Creek to Bay Creek	Fecal Coliform
2. Big Flat Creek	Headwaters to Flat Creek	Fecal Coliform

*These Waterbody Numbers are referenced throughout the Implementation Plan.

Revised Action Plan for Big Flat Creek Watershed

Big Flat Creek Watershed
HUC 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		
<input checked="" type="checkbox"/> Fecal Coliform (FC)	<input checked="" type="checkbox"/> Urban	<input checked="" type="checkbox"/> Recreation		
<input type="checkbox"/> Sediment	<input checked="" 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 checked="" type="checkbox"/> Residential	<input type="checkbox"/> Other (Please List)		
<input type="checkbox"/> Other (Please List)	<input type="checkbox"/> Other (Please List)			

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)
Natural Resource Conservation Service (NRCS)	Provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment	1, 2	Private land owners	Continuous
Walton County Clean & Beautiful	Provides educational programs on water quality for the public and schools in Walton County. Promotes Adopt-a-Stream program	1,2	Schools, civic groups, public	Continuous
Walton Soil and Water Conservation District	Has ongoing programs to educate property owners about best management practices; reviews soil erosion & sedimentation plans	1,2	Developers, private land owners	Continuous

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
David Bennett/ Walton SWCD	c/o Walton EMC, PO Box 260	Monroe	GA	30655	770-267-6253	
William L Brown/Walton SWCD	1669 Pleasant Valley Rd. NE	Monroe	GA	30655	770-267-5192	
William Carlan/Walton Coop Ext Ser.	PO Box 151	Monroe	GA	30655		
Bob Cowan/Walton Planning & Devel	126 Court St, Annex 1	Monroe	GA	30655	770-267-1485	
Clifton Harrison/Walton SWCD	1189 Criswell Rd SE	Monroe	GA	30655		
George N Malcom/Walton SWCD	1210 Pleasant Valley Rd	Monroe	GA	30655		
Jose Pagan/NRCS	PO Box 8	Monroe	GA	30655	770-267-8363	
John H Redding/Walton SWCD	713 East Spring St, PO Box 409	Monroe	GA	30655	770-267-5283	
Ray Spencer/NRCS	205 E. Jefferson St	Madison	GA	30650	800-593-3192	
Roy L. Varner/Upper Ocmul SWCD	11093 Hwy 36	Covington	GA	30209	770-786-3667	
Julie Owens/GA-EPD	4220 International Pkwy, Ste 101	Atlanta	GA	30354	404-675-1651	
Walton County Clean & Beautiful	2051 Leroy Anderson Rd.	Monroe	GA	30655	770-267-1443	
Gwinnett County, various departments	75 Langley Drive	Lawrenceville	GA	30245-6900	770-822-7000	
Chris Yancey, City of Loganville Public Utilities Dept.	P.O. Box 39	Loganville	GA	30249	770-466-1306	

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.

Waterbody Name #1	Location	Miles/Area Impacted	Use Classification	Partially Supporting/ Not Supporting (PS/NS)
Alcovy River	Cedar Creek to Bay Creek	4	Fishing/Drinking Water	Not Supporting
Primary County	Secondary County	Second RDC	Source (Point/ Nonpoint)	
Walton			Nonpoint	
Pollutants	Water Quality Standards	Required Reduction	TMDL ID	Date TMDL Established
Fecal Coliform	1,000 per 100 ml (geometric mean Nov-April) 200 per 100 ml (geometric mean May-Oct)	57%		February 2002

Waterbody Name #2	Location	Miles/Area Impacted	Use Classification	Partially Supporting/ Not Supporting (PS/NS)
Big Flat Creek	Headwaters to Flat Creek	13	Fishing	Not Supporting
Primary County	Secondary County	Second RDC	Source (Point/ Nonpoint)	
Walton			Nonpoint (Urban Runoff) Point Source (Municipal)	
Pollutants	Water Quality Standards	Required Reduction	TMDL ID	Date TMDL Established
Fecal Coliform	1,000 per 100 ml (geometric mean Nov-April) 200 per 100 ml (geometric mean May-Oct)	15%		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*
Fecal coliform	Urban areas	Failed septic tanks cause runoff from pooled sewage; infiltration of untreated material through soils or erosion channels.	1,2
Fecal coliform	Urban areas	Illicit discharges: intentional or negligent discharge of sewage directly into streams or indirectly via storm sewers.	1,2
Fecal coliform	Agriculture	Unrestricted access of cattle to streams	1,2
Fecal coliform	Urban areas	Pet kennels and unrestricted deposition by pets onto surfaces, especially impervious surfaces	1,2
Fecal coliform	Suburban and transitional areas	“Hobby farms” with unrestricted animal access to streams	1,2
Fecal coliform	Urban areas	Leaking sewer systems	1,2
Fecal coliform	Agriculture	Chicken litter deposited for fertilization	1,2
Fecal coliform	Municipal Sewage Treatment Plant	Permitted discharge as background loading of stream; spills and leaks	1,2

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
Enhanced development ordinance and storm water ordinance	Walton County; City of Loganville	Incorporates wider buffers, impervious surface limits, requires detention facilities, parking lot design standards, et al. Imposes storm water detention facilities on most new development.	Present/Ongoing	Enforced	Regulatory
Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness		
Fecal coliform	Urban runoff	1,2	Very effective		
Measurable Milestones	Schedule		Comments		
	Start	End			
All new development will be regulated	Previous	Ongoing	Acres under development must be recorded and data maintained.		

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Stream sampling	Walton County; City of Loganville	Use E. coli or fecal coliform sampling scheme to identify specific sources	2003/2004	Planned	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal coliform	Unknown	1,2	Very effective

Measurable Milestones	Schedule		Comments
	Start	End	
Survey sampling of the streams and their tributaries	2003	2004	Preliminary geographic coverage to identify tributaries or reaches of concern
Detailed sampling of streams and tributaries	2003	2004	Detailed geographic coverage of tributaries and reaches of concern to identify specific sources

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
NRCS and Ag Extension BMPs	NRCS, USDA	Education about, and cost-shared implementation of agricultural BMPs to minimize introduction of fecal material to streams	Ongoing	Active	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal coliform	Agriculture	1,2	Very effective

Measurable Milestones	Schedule		Comments
	Start	End	
Measure percent of animals in watershed restricted from direct access and under a nutrient management plan	2003	2007	Expectation is that 10-20% of current cattle population is under management plans in 2003, 40% of current population will be under NMP by 2007, and 50% of current population will be removed from the watershed by 2007.

Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Stream monitoring	USGS	Implement stream monitoring as specified in the MNGWD TMDL and Water Quality Implementation Plans	2004/Ongoing	Active	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal coliform	All	TBD	Somewhat effective

Measurable Milestones	Schedule		Comments
	Start	End	
Water quality as measured at designated stations to be determined	2004	Ongoing	The water quality predicted by the MNGWD water quality models should improve over the course of this implementation time frame.

Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
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	1964	Enforced	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal coliform			

Measurable Milestones	Schedule		Comments
	Start	End	
EPD acts on complaints from affected parties	Ongoing	Ongoing	

Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Ocmulgee River Basin Management Plan	Georgia EPD	Detailed management plan for the Ocmulgee River Basin. The purpose of the plan is to develop and implement a river basin planning program to protect, enhance, and restore waters for the State of Georgia, which will provide for effective monitoring, allocation, use, regulation, and management of water resources.			

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal coliform	Multiple	1,2	Very effective

Measurable Milestones	Schedule		Comments
	Start	End	
• Prepare/Update Draft River Basin Plan	2003	2003	Plan is in draft form; will be available mid-2003

Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
NPDES Phase II Implementation	City of Loganville	Detailed storm water management plan including BMP's for water quality protection.	2004	Planned	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal coliform	Multiple	1,2	Very effective

Measurable Milestones	Schedule		Comments
	Start	End	
• Implementation of approved Phase II Stormwater Plan	2003	Ongoing	Planning is in progress.

Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Infiltration & Inflow Inspections and Repair	City of Loganville	Regular inspection and monitoring of sewer lines to detect and repair leakages	2003	Ongoing	Voluntary
Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness		
Fecal coliform	Sewer line leakage	1, 2	Very effective		
Measurable Milestones	Schedule		Comments		
	Start	End			

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	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
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	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 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	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
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			
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
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	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
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	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	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
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	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	

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) _____
The fecal coliform load on the impaired water bodies should be decreased by 57% (Alcovy River) and 15% (Big Flat Creek). Incorporation of updated land use data, features of the implementation plan put in place, and further monitoring should be incorporated into the TMDL model to determine if the goal is met. Analysis should take place in 2007 (five years) and subsequently every five years to monitor effectiveness.

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) _____

- Regulatory controls or activities installed (ordinances, laws) _____
The Walton County ordinances governing Post Development Storm Water Management, Floodplain Management, Open Space, Illicit Discharge and Illegal Connection, and Litter Control, and Land Development will be monitored for the acreage affected. The ordinances should affect 100% of new development following their adoption.

- Best management practices installed (agricultural, forestry, urban) _____
Existing agricultural BMP's, plus additional installed BMP's, in combination with the replacement of agriculture with residential and commercial development, is expected to result in 80% of active agricultural enterprises using recommended BMP's by 2007.

COMMENTS

Prepared By: Joseph Tichy
Agency: Northeast Georgia Regional Development Center
Address: 305 Research Drive
City: Athens ST: GA ZIP: 30605
E-mail: jtichy@negrdc.org
Date Submitted to EPD: 1/31/03

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.**