REVISED TMDL IMPLEMENTATION PLAN
FOR
BIG SANDY CREEK WATERSHED

FECAL COLIFORM

In

BIG SANDY CREEK
WILKINSON COUNTY, GEORGIA

Developed by

Middle Georgia Regional Development Center

in coordination with the

Big Sandy Creek Advisory Committee

July 11, 2003

Big Sandy Creek Watershed
Revised TMDL Implementation Plan

Overview

The stream segment under study is:

- Big Sandy Creek, Wilkinson County (from Porter Creek to the Oconee River) Please see attached map.

Plan Preparation…Big Sandy Creek

The revised implementation plan for the Big Sandy Creek Watershed was developed by the Middle Georgia Regional Development Center (RDC), with assistance and input from the Big Sandy Creek Advisory Committee. This committee included, but was not limited to, stakeholder representatives from the forestry industry, agriculture, the Georgia Forestry Commission, the Georgia Soil and Water Conservation Commission, the University of Georgia, the Department of Natural Resources, County Commissioners, County staff, Wilkinson Health Department representatives, interested private citizens and property owners who owned 10 acres or more of property contiguous to the affected stream segment. The Middle Georgia RDC was under Georgia Environmental Protection Division (EPD) contract to prepare a TMDL implementation plan.

The Committee met over a series of three meetings to formulate the revised implementation plan. The first meeting and public hearing held on May 19, 2003 at the Wilkinson County Senior Citizen Center in Irwinton was primarily informational in nature (see attached agenda and accompanying minutes). An EPD representative was on hand to give a brief overview of the TMDL process and address some of the more technical aspects of TMDLs. The EPD brochure entitled "Watershed Wisdom – Georgia's TMDL Program" was distributed to attendees. The video of the same title was shown as well. There were 11 persons who attended and participated in this first meeting (see attached sign-in sheet.)

The second meeting was held on June 19, 2003 at the Wilkinson County Senior Citizen Center in Irwinton (see attached agenda and accompanying minutes). In addition, a press release (see attached press release) was sent to the local papers to better inform the general public. The article also further served to spread the word about the committee's activities (see attached article from the June 19, 2003 *Wilkinson County News*). There were 14 persons who attended and participated in this second meeting (see attached sign-in sheet.) Public comments were solicited and input was used to create the draft revised implementation plan. A follow up article from the second meeting was published as well (please see attached article from the June 19, 2003 *Wilkinson County News*).

The third and final meeting was held on July 7, 2003 at the Wilkinson County Senior Citizen Center in Irwinton to allow the committee to make final comments on the draft revised implementation plan before final submittal to EPD (see attached agenda and accompanying minutes.) There were 7 representatives who attended and participated in this third meeting (see attached sign-in sheet.)

Education/Outreach Activities – Big Sandy Creek

There were several possible education and outreach activities identified by the stakeholders through the three meetings:

- Wilkinson County Cooperative Extension Service Agent discussed the possibility of incorporating discussion on relevant issues during various existing outreach workshops;
- Wilkinson County Health Department might also conduct seminar on septic systems concurrently with other offered education efforts;
- Possible institution of an Adopt a Stream program(s) by the various local private and public partners;
- Adopt-A-Stream or similar organization could distribute fliers on proper disposal of carcasses and waste to local deer processing facilities and hunting clubs for hunter education;
- Adopt-A-Stream or similar organization could distribute fliers on water quality through area schools and public events; and
- Press Releases have been distributed as part of the TMDL implementation planning effort.

Background….Big Sandy Creek – Fecal Coliform

The impacted segment of Big Sandy Creek runs from Porter Creek to the Oconee River. This fourteen mile segment of Big Sandy Creek is currently on the 303(d) list in the State of Georgia for violating the water quality standard for Fecal Coliform. The water use classification this segment of Big Sandy Creek is fishing and it is found to be not supporting this designated use. Georgia EPD calculates that an 89 percent reduction in fecal coliform levels is required to bring Big Sandy Creek within the applicable water standard.

According to EPD estimates, land use percentages of note surrounding the Big Sandy Creek segment include 81.0 percent forest uses, 7.6 percent "Pasture/Hay," 4.0 percent "Woody Wetlands," 2.5 percent "Low Intensity Residential, and 2.3 percent "Row Crops." The stakeholder committee did not believe these estimates to be currently accurate, but rather that more of the area was covered in forest uses.

TMDL Data… Big Sandy Creek

Georgia EPD tested samples from Big Sandy Creek from January through December of 1999 to detect the level of fecal coliform at:

- Big Sandy Creek at State Road 112 near Toomsboro, Georgia

For the months of May through October, fecal coliform should not exceed a geometric mean of 200 counts per 100ml on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. In the months of November through April, fecal coliform should not exceed a geometric mean of 1000 counts per 100ml, based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours, and not to exceed a maximum of 4,000 counts per 100ml for any sample.

The data gathered indicated three exceedances of the fecal coliform level during the May through October 1999 testing, with a geometric mean standard of 247 and 319 counts per 100ml during the months of May/June 1999, and August/September 1999, respectively. There were no exceedances of the fecal coliform level during the November/December and January/February 1999 testing with the geometric mean standard of counts per 100ml for the period falling within acceptable levels.

TMDL Data… Fecal Coliform

The presence of fecal coliform bacteria in aquatic environments indicates that the water has been contaminated with the fecal material of man or other animals. At the time this occurred, the source water might have been contaminated by pathogens or disease producing bacteria or viruses, which can also exist in fecal material. Some waterborne pathogenic diseases include typhoid fever, viral and bacterial gastroenteritis and hepatitis A. The presence of fecal contamination is an indicator that a potential health risk exists

for individuals exposed to this water. Fecal coliform bacteria may occur in ambient water as a result of the overflow of domestic sewage or non-point sources of human and animal waste.

Non-point sources of fecal coliform bacteria are diffuse sources that cannot be identified as entering a waterbody through a discrete conveyance at a single location. These sources, generally, but not always, involve accumulation of fecal coliform bacteria on land surfaces and washoff as a result of storm events.

Possible Pollutant Sources… Big Sandy Creek

Stakeholders made an effort to identify possible sources that could be responsible for high fecal coliform levels through the three meetings:

- **Fish Kill in spring of 1999** in spring due to industrial release killed thousands of fish. Decomposing fish may have elevated fecal levels temporarily;
- Soil in County does not percolate well, and thus pollutant levels might be attributable to **stormwater washing across land and picking up septic overflow;**
- **Failing septic systems** from houses located in and above the identified stream segment, although the committee commented that the affected segment area had little housing development;
- **Wildlife** sources, such as feral hogs and deer;
- **Discarding of animal carcasses** by hunters from bridges;
- **Illegal septic dumping** by commercial septic cleaners;
- Hunting clubs with **unregulated septic systems** might be causing problem**;** and
- Elementary/High School **oxidation pond** may possibly dump into associated tributaries.

Regulatory and Voluntary Measures: Big Sandy Creek

In addition to a host of federal and state laws administered by various agencies, there are a number of important local regulatory and voluntary actions, both existing and proposed, that may help to address the possible sources noted above. They include:

- The Wilkinson County Health Department will continue to review locations and plans for septic tank installation to ensure state regulations are being met in their respective jurisdictions. On-site inspections of new septic tanks will be continued to ensure proper installation. As deer camps are reported, inspections will be performed.
- Wilkinson County currently has a solid waste ordinance that covers illegal dumping.
- Wilkinson County adopted the Part V Environmental Criteria as mandated by the Georgia Growth Planning Act during a recent Comprehensive Plan amendment in October of 2000. This action established standards and procedures pertaining to the protection of river corridors, water supply, watersheds/reservoirs, groundwater recharge areas, and wetlands. This

will be reviewed again in 2005 during the next Comprehensive Plan update to ensure compliance.

- Various partners can participate in public education measures, beginning with the TMDL Implementation Plan;
- The implementation of an Adopt-A-Stream program is also a recommendation. The program could be utilized through various organizations and groups throughout the county. The program could provide updates on current stream conditions in the future as the requisite funding and support are developed; and
  - Possible additional city and/or county sampling to better identify and target possible sources of fecal coliform.

Schedule for Implementation… Big Sandy Creek

The following will be tentatively initiated and continued past 2003:

- Various public education measures; and
- Wilkinson County Health Department to continue review of septic tank siting and installation;

The following will be tentatively initiated and continued past 2004:

- Possible Adopt-A-Stream Program established by public/private partners; and
- Possible additional sampling done by AAS, Gordon, County Extension Service and/or Wilkinson County.

The following will be tentatively initiated and continued past 2005:

- Possible Adopt-A-Stream Program established by public/private partners; and
- Possible additional sampling done by AAS, Gordon, County Extension Service and/or Wilkinson County.

Monitoring Plan… Big Sandy Creek

EPD "Stream Team" due to monitor in watershed in 2004. The Wilkinson County Extension agent will coordinate with EPD, local Adopt-A-Stream chapter, County, and other partners to establish a sampling plan that will leverage EPD's efforts with local efforts. This can be done to create more sampling points and generate additional data that will better help to identify the sources of pollutants.

Criteria to Determine Substantial Progress… Big Sandy Creek

- Creation of Adopt-A-Stream Program by various partners;
- Additional testing done on Big Sandy Creek; and
- Decreased levels of pollutants in creeks

Funding Sources… Big Sandy Creek

- **US EPA Section 604(b) funds** - Federal grant funds administered by the Department of Natural Resources for the State of Georgia. Part of these funds allow regional development centers to perform further development of plans to study water quality problems, perform watershed evaluations, conduct strategic monitoring, and characterize pollution sources for 303(d) streams.

- **US EPA Watershed Surveys and Planning Program - Small Watershed Program** – This program provides planning assistance to local agencies for the development of coordinated water and related land resources programs in watersheds and river basins.

- **Clean Water Act Section 319 funds**: grant money which support a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring to assess the success of specific nonpoint source implementation projects.

Conclusion… Big Sandy Creek

Big Sandy Creek does not have any clear culprit for possible elevated pollutant levels. The entire stream segment is relatively sheltered from normal contributors of fecal coliform bacteria, being enveloped by a primarily rural area – however there is an abundance of wildlife. Stakeholders attempted to identify other reasons for the high levels. One anomaly that could account for the elevated levels in 1999 was a fish kill due to an industrial release that spring. The fish carcasses may have increased fecal coliform bacteria. Disposed deer carcasses from hunters could also be a contributing factor. There are not many septic systems in the immediate area, but residential and hunting club septic systems cannot be ruled out either. Additionally, there is an oxidation pond on a tributary of Big Sandy Creek that may have some effect as well, as could possible illegal dumping by a commercial septic cleaner.

Stakeholders also questioned the use of a single monitoring station for the collection of fecal coliform data for Big Sandy Creek, citing that additional stations and data may better reflect actual conditions throughout the fourteen-mile segment, and are willing to leverage local efforts to create more data.

Local officials are concerned about the relative health of Big Sandy Creek and are willing to commit local resources towards additional testing and public education.

STATE OF GEORGIA

TMDL IMPLEMENTATION PLAN
WATERSHED APPROACH
Oconee River Basin

Local Watershed Governments

Middle Georgia RDC
Wilkinson County
City of Irwinton

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.

Big Sandy Creek Watershed
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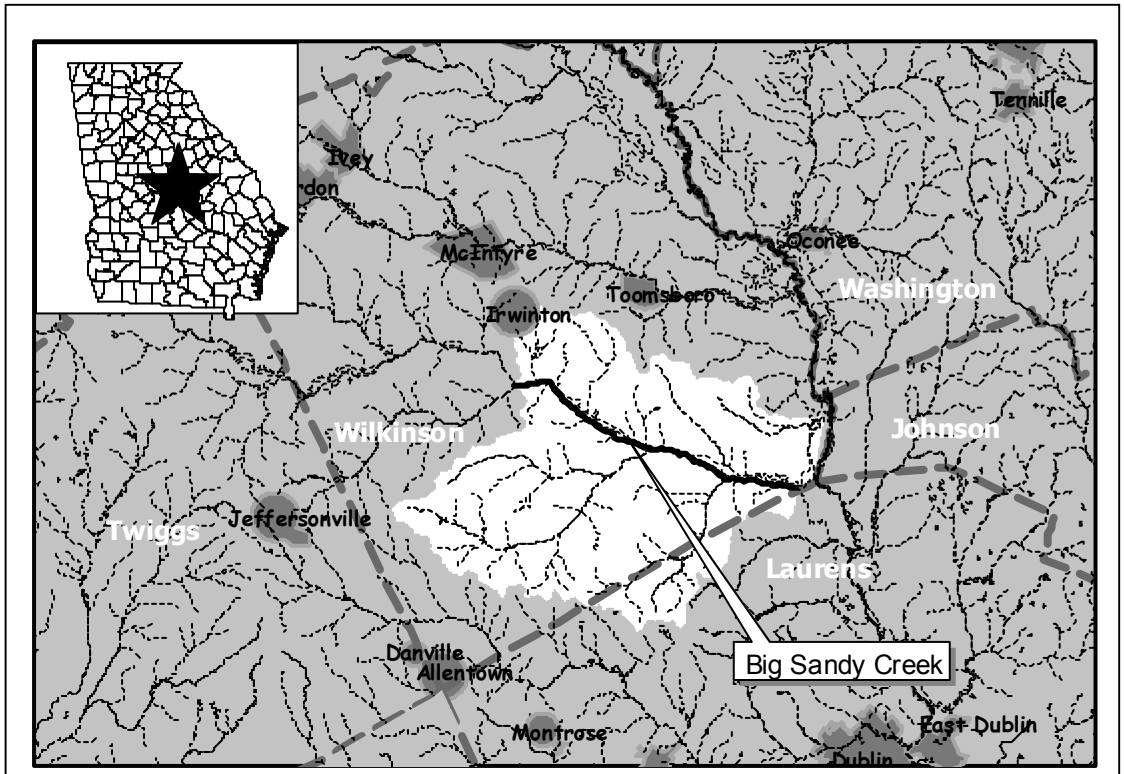

FIGURE 1

Impaired Waterbody*	Impaired Stream Location	Impairment
1. Big Sandy Creek	Porter Creek to Oconee River	Fecal Coliform

*These Waterbody Numbers are referenced throughout the Implementation Plan.

Action Plan for Big Sandy Creek Watershed

Big Sandy Creek Watershed
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POLLUTANT:	SOURCE:	EFFECT:	WHAT CAN I DO?	
			At Home: Community, School	At Work: Business, Government
__ Dissolved Oxygen (DO) X Fecal Coliform (FC) __ Sediment __ Metals __ Fish Consumption Guidelines (FCG) __ Other (Please List)	__ Industrial __ Urban __ Agriculture X Forestry __ Residential X Other (Please List) Wildlife School	X Habitat __ Recreation __ Drinking Water __ Aesthetics __ Other (Please List)	• Regular Maintenance of Septic Tanks • Start or participate in an Adopt-A-Stream program • Keep eyes open for sources of sediment runoff – e.g. poor soil erosion prevention practices in nearby development • Cease mowing stream buffers • Keep eyes open that existing riparian buffers are left undisturbed	• If involved in agriculture, follow related BMPs • If involved in forestry, follow forestry BMPs

INFORMATION/EDUCATION/OUTREACH ACTIVITIES

An education/outreach component will be used to enhance public understanding of and participation in implementing the TMDL Implementation Plan.
List of all previous and planned information/education/outreach activities.

Responsible Organization Or Entity	Description	Impacted Waterbodies*	Target Audience	Anticipated Dates (MM/YY)
Advisory Committee	Public information about all watershed creeks	Big Sandy	County & Region residents	07/03
Wilkinson County Health Department	Discuss water quality issues during outreach workshops, such as on septic systems	Big Sandy	County & City residents	06/04
Local Partners	Establish Adopt-A-Stream programs in Wilkinson County	Big Sandy	County & Region residents	12/05
Local Partners / AAS	Brochures to hunters via processing and hunt clubs	Big Sandy	Hunters	12/03 -
Cooperative Extension Service	Discuss water quality issues during outreach workshops	Big Sandy	Meeting attendees	07/03 -

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, Deputy Exec. Dir GA Soil & Water Conservation Commission	P. O. Box 8024	Athens	GA	30603		
Dennis Brooks NRCS, USDA Service Center	205 East Jeffersonville	Madison	GA	30650	(706) 342-1315	
Ben Brown, Supervisor Piedmont Soil & Water Conservation District	3014 Heritage Road, Suite 1	Milledgeville	GA	31061		
Harriet Bryant Water Resources Branch-Georgia EPD	4220 International Pkwy., Suite 101	Atlanta	GA	30354	(404) 675-1654	Harriet_Bryant@ mail.dnr.state.ga.us
Grady Calvert, Supervisor Piedmont Soil & Water Conservation District	3014 Heritage Road, Suite 1	Milledgeville	GA	31061		
Ralph Crumley, Supervisor Piedmont Soil & Water Conservation District	3014 Heritage Road, Suite 1	Milledgeville	GA	31061		
Joe Duckworth Cattlemen's Association	299 Barrows Ferry Road	Milledgeville	GA	31061		
Brent Dykes Ga. Soil & Water Conservation Commission	3014 Heritage Road, Suite 1	Milledgeville	GA	31061	(478) 445-5766	bdykes@gaswcc.org
Mike Giles Georgia Poultry Federation	P. O. Box 763	Gainesville	GA	30503	(770) 532-0473	mike@gapf.org
John Grimes, Supervisor Piedmont Soil & Water Conservation District	3014 Heritage Road, Suite 1	Milledgeville	GA	31061		
Nathan Klaus 1 Georgia DNR - Nongame Wildlife	16 Rum Creek Drive	Forsyth	GA	31029	994-1438	naklaus@mindspring.com
Drew Marczak The Timber Company	P. O. Box 1069	Watkinsville	GA	30677		
Abit Massey, President Georgia Poultry Federation	Box 763	Gainesville	GA	30503		

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Bill Meaks University of Georgia	Poultry Science Department	Athens	GA	30602	(706) 542-9182	bmeaks@UGA.edu
William J. Moore	355 Monticello Highway	Gray	GA	31032		
Don Morse, Program Dev. Coord. UGA Cooperative Extension Service	1109 Experiment Street Flynt Building, Room 227	Griffin	GA	30223-1797		
David Pitts, Supervisor Piedmont Soil & Water Conservation District	3014 Heritage Road, Suite 1	Milledgeville	GA	31061		
Mark Risse, Extension Engineer UGA Cooperative Extension Service	Driftmier Engineer Building The University of Georgia	Athens	GA	30602		
William Segars, State Water Quality Eng. University of Georgia College of Agriculture/Envir. Sciences	Plant Sciences Building	Athens	GA	30602		
Ronnie Shell, Refuge Manager Piedmont National Wildlife Refuge	718 Juliette Road	Round Oak	GA	31038	(478) 986-5441	piedmont@fws.gov
Robert Shulstead, Asst. Dean & Coord. University of Georgia College of Agriculture/Envir. Sciences	Conner Hall	Athens	GA	30602		
Wayne Tankersley, District Agent UGA Cooperative Extension Service	1109 Experiment Street Flynt Building, Room 227	Griffin	GA	30223-1797		
Mike Tanner, Chief Ranger Georgia Forestry Commission	2692 Highway 441 S.	Milledgeville	GA	31061		
David Thompson Cagles, Inc.	P. O. Box 570	Forsyth	GA	31029	994-5156	CagleFarmInc.@aol.com
Joe Thornton	676 North Cross Road	Gray	GA	31032		
Larry Walker Weyerhauser Company	P. O. Box 238	Oglethorpe	GA	31068	(478) 472-5269	Larry.Walker @Weyerhaeuser.com
Elizabeth Watts	50 Mays Street	Forsyth	GA	31029	994-6688	
Harold West Georgia Forestry Commission	119 Highway 49	Milledgeville	GA	31061	(478) 445-5164	hwest@gfc.state.ga.us
Tiffany Wharton Environmental Code Enforcement	P. O. Box 1359	Gray	GA	31032	986-6084	jcclean@mylink.net
Wayne Williams, President Georgia Cattlemen's Association	1473 Hunting Club Road	Crawfordville	GA	30631		
John Wilson Ocmulgee Riverkeeper	2340 Clayton Street	Macon	GA	31204		

Tom Wooten, Chief Ranger Georgia Forestry Commission	302 Milledgeville Road	Eatonton	GA	31024
Laura Mathis Wilkinson County Manager	P. O. Box 161	Irwinton	GA	31042

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)
Big Sandy Creek	Porter Creek to Oconee River	14	Fishing	NS

Primary County	Secondary County	Second RDC	Source (Point/ Nonpoint)
Wilkinson			Nonpoint

Pollutants	Water Quality Standards	Required Reduction	TMDL ID	Date TMDL Established
Fecal Coliform	1000/100 ml (geometric mean Nov. – April) 200/100 ml (geometric mean May – Oct.)	66%	OCO0000032	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	Wildlife	Deposits feces onto land surfaces where it can be transported during storm events to nearby streams, illegal dumping of animal viscera.	Big Sandy
Fecal Coliform	Failing Septic Systems	Houses and hunting clubs, above and within the stream segment, could have failing septic systems	
Fecal Coliform	Elementary/High School	Oxidation Pond upstream of stream segment may have an impact	
Fecal Coliform	Illegal septic dumping	By commercial septic cleaners upstream in Porter Creek may have an impact	
Fecal Coliform	Illegal dumping	Of Carcasses by hunters	
Fecal Coliform	1999 Fish Kill	Large fish kill occurred in 1999 right before testing, Decomposing fish may have added to higher fecal levels.	

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
Georgia Water Quality Act (OCGA 12-5-20)	Georgia 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	In progress	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform Bio (Sediment)	Point and Non-Point Sources (FC), Commercial and Residential Development (Sediment)	Big Sandy Creek	

Measurable Milestones	Schedule		Comments
	Start	End	
Georgia EPD responsible for enforcement and compliance, for listed sources.	On-going		

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Georgia Growth Planning Act (OCGA 12-2-8) Part V Environmental Criteria	Georgia DNR, DCA, MGRDC, and local units of government	Authorized Georgia 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.	2000	Existing	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Bio (Sediment) & Fecal Coliform	Commercial and Residential development	Big Sandy Creek	

Measurable Milestones	Schedule		Comments
	Start	End	
Georgia Forestry Commission can determine applicability and forestry BMP implementation for. Wilkinson County has already adopted Part V Criteria at next Comprehensive Plan update	On-going		

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Septic Tank Installation & Review	Wilkinson County Health Department	Reviews location and plans for new septic tank installation to ensure state regulations are met. On-site inspection of new septic tanks to ensure proper installation.	N/A	In progress	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Leaking or sub-standard septic systems	Big Sandy Creek	

Measurable Milestones	Schedule		Comments
	Start	End	
Plans and recommendations are reviewed on a case-by-case basis. Unresolved complaints are forwarded on to Ga. EPD for enforcement.	On-going		

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Cooperative Monitoring Program	AAS, local governments, Cooperative Extension	Additional sampling can be performed to better determine the actual sources	2004	Not yet intiated	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Various	Big Sandy Creek	

Measurable Milestones	Schedule		Comments
	Start	End	
Cooperative Extension to sample creeks	2004		
County to fund sampling expense and transportation	2004		

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Wilkinson County Solid Waste Ordinance	Wilkinson County	Similar to Georgia Water Quality Act, this local ordinance outlaws dumping in the County, with particular respect to streams and waterways	2000	Underway	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Animal viscera dumped in stream	Big Sandy Creek	

Measurable Milestones	Schedule		Comments
	Start	End	
Wilkinson County to enforce ordinance	On-going		

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/Voluntary
Creation of an Adopt A Stream Program	Wilkinson County and Big Sandy Creek property owners	Creation of grassroots volunteer organization that will assist in further public awareness and collecting additional stream data	2004	Not yet initiated	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Bio (Sediment) & Fecal Coliform	Various	Big Sandy Creek	

Measurable Milestones	Schedule		Comments
	Start	End	
Organize first meeting	2003		

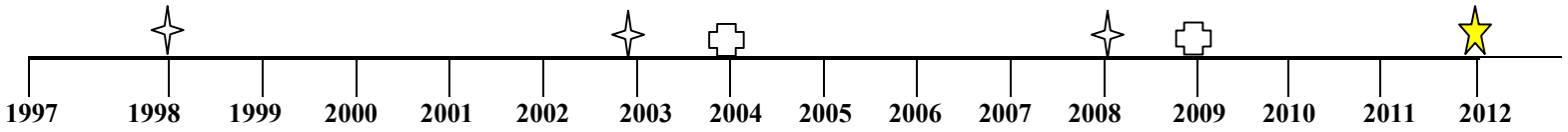
POTENTIAL FUNDING SOURCES

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*
US EPA Section 604(b) grant funds	Georgia DNR/Middle Georgia RDC	Proposed	$5,000	Big Sandy
US EPA Watershed Surveys and Planning Program	US Environmental Protection Agency	Proposed	??	Big Sandy
Section 319 program	US EPA	Proposed	$?	Big Sandy

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	
Additional Sampling	AAS, homeowners' association, local governments	Big Sandy Creek	Fecal Coliform	Cooperative monitoring program could be created to better assess and identify sources, especially in conjunction with the Stream Team's efforts	2004	2004	Proposed
Additional Sampling	EPD "Stream Team"	Oconee River Basin	Fecal Coliform	Stream Team will return to Oconee Basin to perform additional testing	2004	2004	Proposed

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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)

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) Health Department to continue septic tank installation review; Wilkinson County to To enforce the Solid Waste Ordinance.

- Best management practices installed (agricultural, forestry, urban) Creation of an Adopt A Stream program by various partners; additional testing Performed on Big Sandy Creek to obtain more data to make better decisions; Decreased levels of pollutants in creeks.

COMMENTS

Big Sandy Creek Watershed
HUC 10 - 0307010207

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Date Submitted to EPD: July 11, 2003

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

TOGETHER WE CAN MAKE A DIFFERENCE!