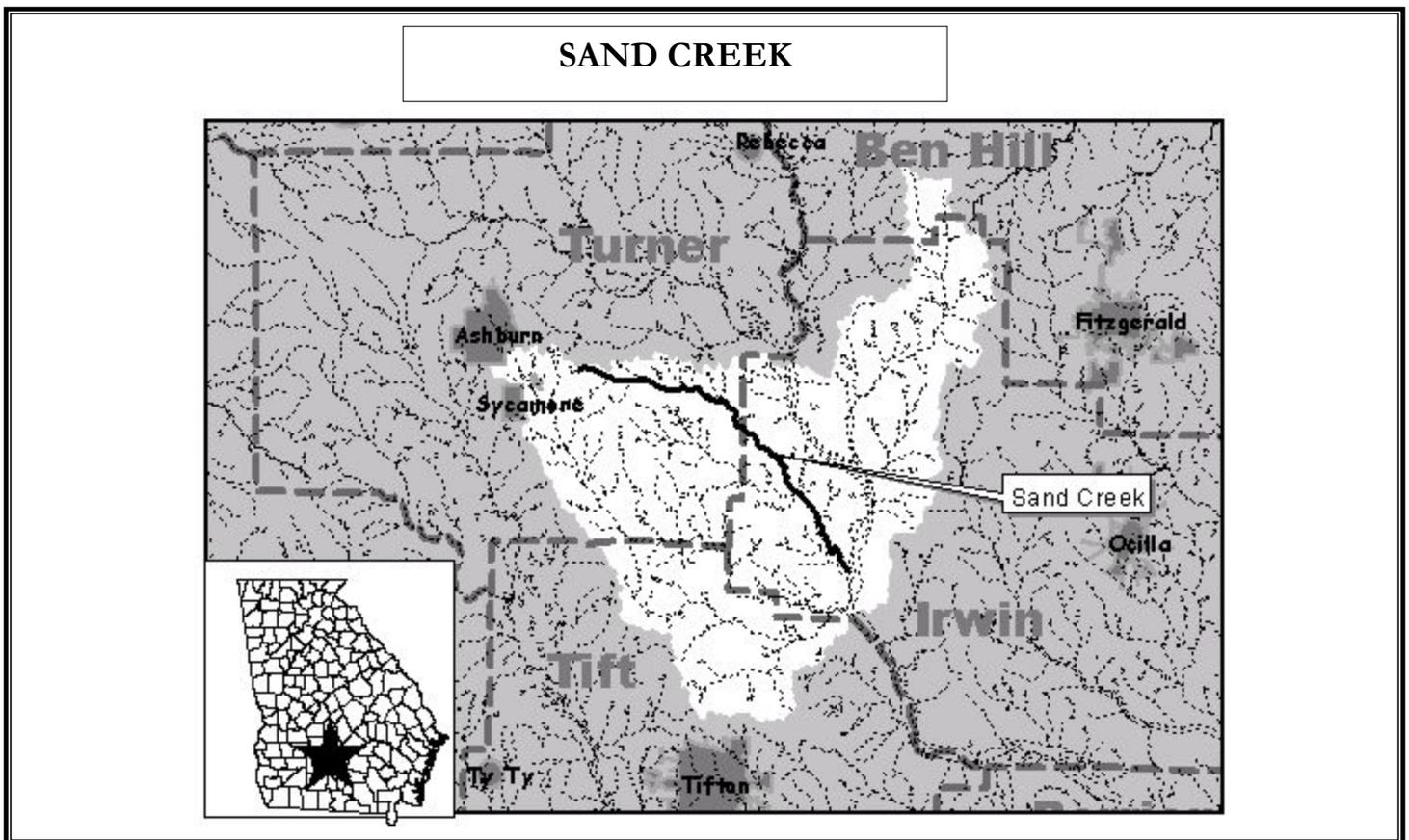


**STATE OF GEORGIA
TMDL IMPLEMENTATION PLAN**

**SAND CREEK
(Fecal Coliform)**

Prepared by
**The Georgia Department of Natural Resources
Environmental Protection Division
Atlanta, GA**

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 overall goal of the Plan is to define a set of actions that will help achieve water quality standards in the state of Georgia. This plan was originally prepared as an implementation inventory by the South Georgia RDC with a Section 604(b) Grant. TMDL load allocation information has been updated to reflect the approved TMDL.



Impaired Waterbody*	Impaired Stream Location	River Basin	Miles/Area Impacted	Partially Supporting/ Not Supporting
Sand Creek	Tributary to Alapaha River, East of Sycamore	Suwannee	14 miles	Partially Supporting

SAND CREEK
TMDL Implementation Plan
Irwin/Turner County, Georgia

Background

Sand Creek originates in western Turner County and meanders into Irwin County. The 14-mile segment impacts primarily agricultural land uses. It is currently listed as an impaired stream segment by the Georgia Environmental Protection Division. Sand Creek has a water use classification of “fishing” and, according to the Georgia 303(d) data which placed it on the Georgia 1996 303(d) list, Sand Creek is “partially supporting” this designated classification.

Existing Land Use

Within Turner and Irwin Counties, Sand Creek flows through agricultural areas, which are served by well and septic systems. The land uses within these portions of Turner County and Irwin County are almost entirely agricultural in nature with farming being the primary use.

Monitoring Data

This TMDL is based on the limited fecal coliform data that was readily available and used to put the stream segment on the 303(d) list. No watershed or stream specific modeling data were collected. This TMDL should be considered a level 1 TMDL that is useful in making screening level decisions, used as one factor to priority rank the watersheds for additional monitoring or for planning the implementation of pollution controls, and/or determine additional intensive monitoring needs to better define the cause and effect relationships.

Existing Regulatory or Voluntary Actions

Currently, Irwin County has several ordinances in place designed to regulate and limit stream pollutants. They are:

- The County Sanitary Code-Regulates the installation of on-site septic systems;
- County Zoning Ordinances;
- County Part V Environmental Regulations, namely Protected River Corridors; Groundwater Recharge Areas and Wetlands Protection District;
- Erosion Control and Sedimentation Act-Construction code to reduce pollutants to navigable waters.

Recommended Regulatory or Voluntary Actions

It is recommended that the Turner and Irwin Counties conduct periodic monitoring for fecal coliform of the impaired stream segments. This will be done on a monthly basis to determine when, if any, impairment is at its peak levels. The Counties could also conduct thirty day monitoring periods at least once a year. This would be instrumental to determine if the action plans should be more proactive or re-active.

It should be noted that the Upper Suwannee River Watershed Initiative (USRW) is a citizen-led coalition partnered with public and private agencies to bring together residents of the USRW to identify and solve water quality basin problems that affect their water, soils, and forests. The main goal of this basin-planning group is to address potential problems early and help avoid costly and

continuous battles over limited financial resources.

Schedule For Implementing Management Measures

The schedule for implementing such a monumental plan as this should be as follows:

Year One

- Stakeholders Group is formed identifying major constituents that would be impacted by the impaired stream segment.
- Organize implementation work with stakeholders and local officials to identify remedial measures and potential funding sources. (*this would continue for the entire five year period*)
- Identify sources of TMDL parameters (*this would continue into year two*)
- Develop management programs to control runoff including identification and implementation of BMPs. (*this would continue into year two*)
- Organize and implement education and outreach programs. (*this would continue into year three*)

Year Two

- Monitor and evaluate results.

Year Three

- Evaluate additional management controls needed. (*this would continue into year five*)
- Provide periodic status reports on implementation of remedial activities.

Year Four

- Reassess TMDL allocations. (*this would continue into year five*)
- Monitor and evaluate results.

Year Five

- Provide periodic status reports on implementation of remedial activities.
- Monitor and evaluate results.

There are three particular aspects of the plan that need to be addressed separately because of their importance. First, it is important to determine if fecal coliform levels still warrant listing the branch on the 303(d) list. This needs to be done as soon as possible. Second, if monitoring determines fecal coliform levels still exceed acceptable limits, the stream segment should be monitored in several different locations to identify a source of the contamination. Then, the necessary measures can be taken to decrease the fecal coliform levels and have the stream taken off the 303(d) list. Finally, after the sources of the fecal coliform contamination have been determined and measures have been taken to abate the impairment, periodic monitoring needs to be done to ensure the integrity of the segment has remained below the acceptable fecal coliform levels.

It should be noted, however, these measures will require proper funding and coordination from specialized groups to ensure the measures are implemented correctly.

Funding

It is recommended that if preliminary monitoring shows no significant reduction in levels of fecal coliform, funding should be sought for extensive long term monitoring to identify sources of the pollutants and also to determine proper action to reduce levels of fecal coliform. Funds could be used not only for water quality monitoring, but also for the “proper” checking of on-site sewage

systems. It could also be used to monitor ground water for potential contamination beyond the surface level of the streams. This would help ensure quality of water both above and below the surface.

Conclusion

It has been determined that more extensive monitoring and up-to-date data collection needs to be done before determining the specific cause and source of impairment of the stream segment. Once this has been completed, then the proper actions can be taken to ensure the highest quality of sustainability for our waters.

STATE OF GEORGIA

TMDL IMPLEMENTATION PLAN FOR: Sand Creek F.C. RIVER BASIN: Suwannee
 (STREAM) (PARAMETER) PLAN DATE: _____

Prepared by: <u>South Georgia RDC</u> <u>South Georgia</u> Regional Development Center Address: <u>327 West Savannah Ave.</u> City: <u>Valdosta</u> State: <u>GA</u> Zip: <u>31601</u> e-mail: _____ Date Submitted to EPD: <u>9/31/2001</u>		Or Prepared By: _____ Address: _____ City: _____ State: _____ Zip: _____ e-mail: _____ Date Submitted to EPD: _____	
General Information		Significant Stakeholders	
Obtain this information from the TMDL document or other information. When completed, this document will be a self-contained report independent of the TMDL document.		Identify local governments, agricultural organizations or significant land holders, commercial forestry organizations, businesses and industries, and local organizations including environmental groups with a major interest in this water body.	
TMDL ID (to be entered by EPD)	SUW0000007	Name/Organization	Mr. Armond Morris, Chairman, Irwin Co. Comm.
Water body name	Sand Creek	Address	207 S. Irwin Ave.
HUC basin name	Suwannee	City	Ocilla State GA Zip 31774
HUC number	03110202	Phone	(229) 468-9441 e-mail
Primary county	Irwin	Name/Organization	Irwin County Health Department
Secondary county	Turner	Address	West 4 th Street
Primary RDC	South Georgia	City	Ocilla State GA Zip 31774
Secondary RDC	N/A	Phone	(229) 468-5003 e-mail
Water body location	Tributary to Alapaha River	Name/Organization	U.S. Fish and Wildlife Service
	East of Sycamore	Address	1875 Century Blvd. Suite 400
Miles or area impacted	14 Miles	City	Atlanta State GA Zip 30345-3319
Parameter addressed in plan	Fecal Coliform	Phone	(404) 679-4000 e-mail
Water use classification	Fishing	Name/Organization	Mr. Deral Dukes, Chairman, Turner Co. Comm.
Degree of impairment	Partially supporting use <input checked="" type="checkbox"/>	Address	P.O. Box 191
	Not supporting use <input type="checkbox"/>	City	Ashburn State GA Zip 31714
Date TMDL approved by EPD	June 2000	Phone	(229) 567-4313 e-mail
Impairment due to	Point sources <input type="checkbox"/>	Name/Organization	Natural Resources Conservation Service
	Nonpoint sources <input checked="" type="checkbox"/>	Address	1468 South Carpenter Road
	Both <input type="checkbox"/>	City	Tifton State GA Zip 31793
Point source-Form A; Nonpoint source-Form B; Both-Form A+B+C		Phone	(229) 382-4776 e-mail

If more, add to comments on last page.

FORM B

SUMMARY OF ALLOCATION MODEL RESULTS FROM TMDL DOCUMENT (existing load, target TMDL, and needed reduction)

EXISTING LOAD	TARGET TMDL	NEEDED REDUCTION
2.46*10 ¹²	1.43*10 ¹²	42%

I. IDENTIFY **NONPOINT SOURCE** CATEGORIES AND SUBCATEGORIES OR INDIVIDUAL SOURCES WHICH MUST BE CONTROLLED TO IMPLEMENT LOAD ALLOCATIONS:

List major nonpoint sources contributing to impairment including those identified in TMDL document.

SOURCE	DESCRIPTION OF CONTRIBUTION TO IMPAIRMENT	RECOMMENDED LOAD REDUCTION (FROM TMDL)
Agriculture/Pasture Land Uses	Major Sources Include:	42%
	Cattle farming	
	Wildlife	
	Leaking septic systems	

II. DESCRIBE ANY REGULATORY OR VOLUNTARY ACTIONS INCLUDING MANAGEMENT MEASURES OR OTHER CONTROLS BY GOVERNMENTS OR INDIVIDUALS THAT SPECIFICALLY APPLY TO THE POLLUTANT AND THE WATERBODY FOR WHICH THE TMDL WAS WRITTEN, THAT WILL BE ACCOMPLISHED THROUGH RELIABLE AND EFFECTIVE DELIVERY MECHANISMS, AND THAT WILL HELP ACHIEVE THE LOAD ALLOCATIONS IN THE TMDL:

See the attachment for more instructions.

Existing or required regulatory actions

RESPONSIBLE GOVERNMENT, ORGANIZATION OR ENTITY	NAME OF REGULATION/ORDINANCE	DESCRIPTION	ENACTED OR PROJECTED DATE (mm/yy)	STATUS
Irwin County Health Dept.	Sanitary Code	Installation of on-site sewerage systems	1980's	In-force
Irwin County	Zoning Ordinance	Part V: Environmental Standards	2000	In-force
Irwin County	State of Georgia Soil & Sedimentation Control Act	Construction code to reduce pollutants to navigable waters	1980's	In-force

Existing voluntary actions

RESPONSIBLE ORGANIZATION OR ENTITY	NAME OF ACTION	DESCRIPTION	ENACTED OR PROJECTED DATE (mm/yy)	STATUS
Forestry and Agricultural Stakeholders	Best Management Practices	Soil and Sedimentation Control Ordinance	Ongoing	Ongoing

Note: All organizations listed in tables are considered stakeholders.

Additional recommended regulatory or other measures which should be implemented to reduce the loads of the TMDL parameter

ENTITY/ORGANIZATION RESPONSIBLE	NAME OF PROPOSED REGULATION/ORDINANCE/ OTHER	DESCRIPTION	ENACTED OR PROJECTED DATE (mm/yy)	STATUS
Irwin County	Periodic Monitoring	Monitor impaired stream segments for fecal Coliform	2003	Pending Funding
Upper Suwannee River Basin Management Plan	Water Quality Management Plan	Implement regulatory/voluntary activities to meet water quality goals	2005	Ongoing

III. SCHEDULE FOR IMPLEMENTING MANAGEMENT MEASURES OR OTHER CONTROL ACTIONS:

These must be implemented as expeditiously as practicable within five years of when the implementation plan is accepted by EPD.

IMPLEMENTATION ACTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Form stakeholders group	X				
Organize implementation work with stakeholders and local officials to identify remedial measures and potential funding sources	X	X	X	X	X
Identify sources of TMDL parameter	X	X			
Develop management programs to control runoff including identification and implementation of BMPs (Phase I):	X	X			
Agriculture					
Forestry					
Urban					
Mining					
Organize and implement education and outreach programs	X	X	X		
Detect and eliminate illicit discharges					
Evaluate additional management controls needed			X	X	X
Monitor and evaluate results		X		X	X
Reassess TMDL allocations				X	X
Provide periodic status reports on implementation of remedial activities			X		X
If needed, begin process for Phase II (next 5 years) and subsequent phases					

IV. PROJECTED ATTAINMENT DATE AND BASIS FOR THAT PROJECTION:

The projected attainment date is 10 years from acceptance of the implementation plan by EPD.

V. MEASURABLE MILESTONES:

- Number of management controls and activities already implemented _____4_____
- Number of management controls and activities proposed in five-year work program _____2_____
- Number of management controls and activities actually implemented in five-year work period _____ (to be completed after 5 years)
- Stream sampled to identify areas of concern See monitoring plan
- Other _____
- Other _____

VI. MONITORING PLAN:

Monitoring data that placed stream on 303(d) list will be provided if requested.

Describe previous or current sampling activities or other surveys to detect sources or to measure effectiveness of management measures or other controls.

ORGANIZATION	TIME FRAME	PARAMETERS	PURPOSE	STATUS
???-Funding must be identified	As soon as possible	Fecal Coliform	Determine if fecal coliform levels still warrant listing the branch on the 303(d) list	Funding for monitoring must be identified
???-Funding must be identified	If additional monitoring determines F.C. levels exceed limits	Fecal Coliform	Monitor branch at several different points to identify source of contamination. Implement necessary measures to decrease F.C. load	Not to be done if stream is not delisted; Funding must be identified.
???-Funding must be identified	After sources are determined and measures to abate are implemented	Fecal Coliform	Periodic monitoring to determine if implemented measures are successful	Need to be done if stream is not delisted; Funding must be identified.

Describe any planned or proposed sampling activities or other surveys. (Scheduled EPD sampling can be found in the Basin Planning document.)

ORGANIZATION	TIME FRAME	PARAMETERS	PURPOSE	STATUS
EPD	2003-2004	Fecal Coliform	basin planning	N/A
Irwin County	2003	Fecal Coliform	Test for impairment	N/A

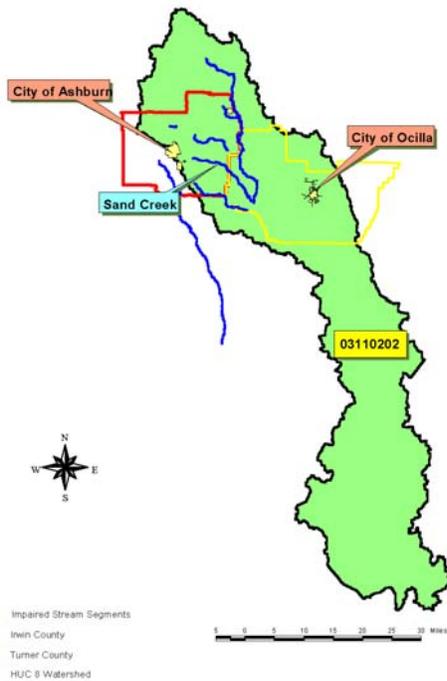
VII. CRITERIA TO DETERMINE WHETHER SUBSTANTIAL PROGRESS IS BEING MADE:

- % concentration or load change (monitoring program)
- Categorical change in classification of the stream (delisting the stream is the goal)
- Regulatory controls or activities installed (ordinances, laws)
- Best management practices installed (agricultural, forestry, urban)

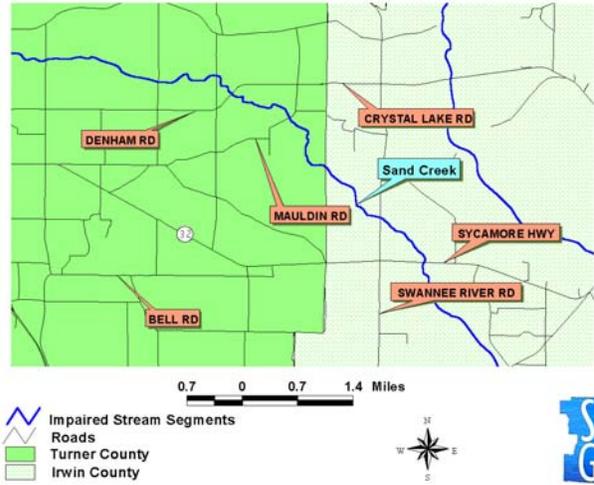
COMMENTS

Turner County/ Irwin County

HUC 8 Watershed

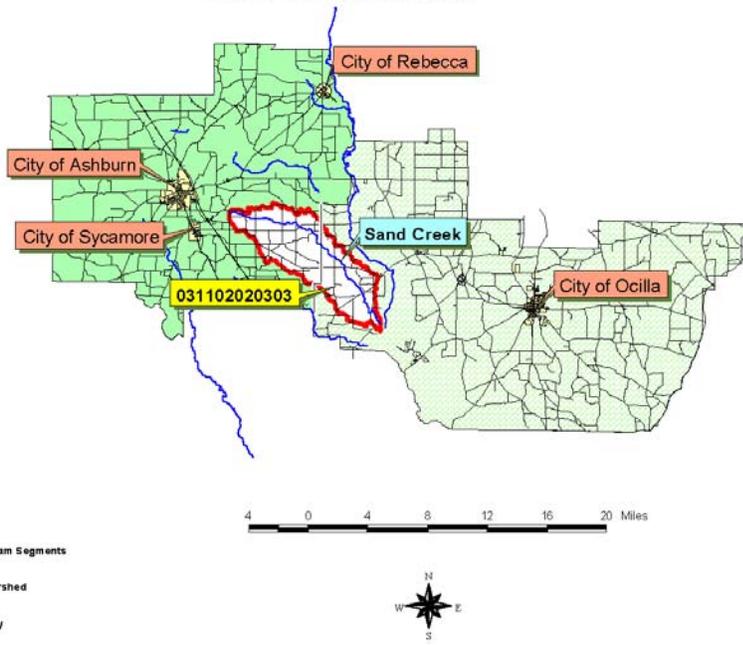


Sand Creek Turner County/ Irwin County



Turner County/ Irwin County

HUC 12 Watershed



Turner County/ Irwin County

Land Application Sites



Turner County/ Irwin County

Recharge Areas

