

TMDL IMPLEMENTATION PLAN CITY DRAINAGE CANAL, WAYCROSS, GEORGIA

The City Drainage Canal in Waycross, Georgia has a fishing water use classification and is currently listed as an impaired water body. The degree of impairment is classified as a partially supporting use and the TMDL for the City Drainage Canal is set at a target level of 150 cfu/100 ml of water, a level that will allow the water body to achieve water quality standards necessary for the fishing use classification.

A Total Maximum Daily Load (TMDL) is a calculation of the maximum amount of a pollutant, from both point and non-point sources, that a water body can receive and still meet water quality standards. The Clean Water Act, section 303, establishes the water quality standards and the TMDL's. The 303(d) list is an inventory of impaired streams and water bodies. Although some TMDLs are aimed at managing all sources of pollution which affect beneficial uses of water, the focus of this implementation plan relates primarily to nonpoint sources. The purpose of this plan is to provide a framework of goals, objectives, and strategies for reducing or eliminating the pollutants contained in the runoff into the City Drainage Canal.

The Southeast Georgia Regional Development Center's planning staff has guided the process of developing the TMDL Implementation Plan for the Waycross City Drainage Canal. The process began with a meeting of a small stakeholder committee comprised of representatives from the City of Waycross, Ware County, the Waycross/Ware County Planning Commission, the Downtown Waycross Development Authority, and the Waycross/Ware County Development Authority. The individuals who made up the committee were already knowledgeable about TMDL's and the need for an implementation plan. Representatives from the Waycross Water and Sewer Department immediately stated that the high fecal coliform readings in the past had been the result of spills from the Sewage Treatment Plant. However, it was also acknowledged that private septic systems and a few residences with agricultural animals were also a potential source of fecal coliform in the stream.

The decision was reached that the implementation plan should primarily focus on monitoring, specifically of the areas in proximity to the Sewage Treatment Plant and of septic systems. There is also a need to address the problems associated with stormwater runoff from urban impervious surfaces. Education is another important element of the plan. The City also intends to reexamine and possibly improve existing buffer regulations.

STATE OF GEORGIA

TMDL IMPLEMENTATION PLAN FOR: City Drainage Canal
(STREAM)

Fecal Coliform
(PARAMETER)

RIVER BASIN: Satilla
PLAN DATE: March 31, 2001

Prepared by: Southeast Georgia Regional Development Center Address: 3395 Harris Road City: Waycross State: Georgia Zip: 31503 e-mail: bdhsegardc@accessatc.net Date Submitted to EPD: 3/30/2001		Or Prepared By: _____ Address: _____ City: _____ State: _____ Zip: _____ e-mail: _____ Date Submitted to EPD: _____					
General Information 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.		Significant Stakeholders 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)		Name/Organization	City of Waycross				
Water body name	City Drainage Canal	Address	P.O. Drawer 99				
HUC basin name	Satilla River – Big Creek	City	Waycross	State	GA	Zip	31502
HUC number	030702010704	Phone	(912)287-2900			e-mail	
Primary county	Ware	Name/Organization	Ware County				
Secondary county	None	Address	P.O. Box 1069				
Primary RDC	Southeast Georgia	City	Waycross	State	GA	Zip	31502
Secondary RDC	None	Phone	(912)287-4300			e-mail	
Water body location	Tributary to Satilla River	Name/Organization	Downtown Waycross Development Authority				
	in Waycross (Ware County)	Address	315 Plant Avenue				
Miles or area impacted	6.38 miles	City	Waycross	State	GA	Zip	31502
Parameter addressed in plan	Fecal coliform	Phone	(912)283-7787			e-mail	
Water use classification	Fishing	Name/Organization	Waycross-Ware Co. Development Authority				
Degree of impairment	Partially supporting use	Address	P.O. Box 137				
	Not supporting use X	City	Waycross	State	GA	Zip	31502
Date TMDL approved by EPA		Phone	(912)283-3742			e-mail	
Impairment due to	Point sources	Name/Organization	Waycross-Ware Co. Planning Commission				
	Nonpoint sources X	Address	902 Grove Avenue				
	Both	City	Waycross	State	GA	Zip	31501
Point source-Form A; Nonpoint source-Form B; Both-Form A+B+C		Phone	(912)287-4379			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
6084 cfu/100 ml	150 cfu/100 ml	5934 cfu/100 ml

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)
Animal Agriculture	Several parcels contain small numbers of pigs, horses, cows, etc.	50%
Septic Tanks	Older septic tanks often malfunction; when tanks are pumped out, sewage could be illegally dumped.	90%
Wastewater Treatment Plant Leaks and Sewer Exfiltration	Leakage from the wastewater treatment plant and along sewer lines has been a serious problem in the past, especially during the testing period upon which this TMDL is based. Great improvements have been made and continue to be made.	90%
Residential Development (Pets)	Many residents have one or more non-agricultural animals on their property that could contribute to the fecal coliform levels in the canal.	90%
Green Boxes (Dumpsters)	Many dumpsters used by area businesses are washed out by rainfall or by the business owner. The resulting runoff enters the canal.	90%
Urban Impervious/Pervious Surfaces	Developed urban surfaces increase the volume of runoff to the canal.	90%

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
Ware County	Storm Drainage Evaluation	Monitors integrity of storm drainage system.	5/94	Active
Ware County	Soil Erosion & Sedimentation Plan	State model ordinance adopted by Ware County Commission – BMP's.	2/93	Active
Ware County	Stream Buffers/Agricultural Buffers	Provides a 25-foot minimum protective buffer along the City Drainage Canal.	5/00	Active
Ware County	Septic Tank Ordinance	Requires permit for new septic tanks.	1/96	Active
City of Waycross	Soil Erosion & Sedimentation Plan	State model ordinance adopted by Waycross City Council – BMP's.	2/93	Active
City of Waycross	Stream Buffers/Agricultural Buffers	Provides a 25-foot minimum protective buffer along the City Drainage Canal.	5/00	Active
City of Waycross	Storm Drainage Evaluation	Monitors integrity of storm drainage system.	5/94	Active
City of Waycross	Stormwater Ordinance	Requires stormwater retention basins for new construction.	3/00	Active
City of Waycross	Septic Tank Ordinance	Requires permit for new septic tanks.	1/96	Active

Existing voluntary actions

RESPONSIBLE ORGANIZATION OR ENTITY	NAME OF ACTION	DESCRIPTION	ENACTED OR PROJECTED DATE (mm/yy)	STATUS
City of Waycross	Land Use Plan	Estimated 20-year future land uses.	8/93	To be updated 7/1/08
Ware County	Land Use Plan	Estimated 20-year future land uses.	8/93	To be updated 7/1/08

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
Ware County	Septic Tank Survey	Survey to determine the location, number, and operational status of area septic tanks.	TBA	TBA
Ware County	Stormwater Treatment	Retention ponds could be used to separate pollutants from stormwater runoff before entering the canal.	TBA	TBA
Ware County School System	River Kids Program	A state-approved environmental curriculum for use in schools for education and public service.	TBA	TBA
Ware County	Wastewater Treatment Plant Evaluation	Conduct regular testing along canal at intervals from Wastewater Treatment Plant.	TBA	TBA

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 EPA.

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				
Identify sources of TMDL parameter		X			
Develop management programs to control runoff including identification and implementation of BMPs (Phase I):					
Agriculture	X	X	X	X	X
Forestry					
Urban	X	X	X	X	X
Mining					
Organize and implement education and outreach programs	X	X			
Detect and eliminate illicit discharges	X	X	X	X	X
Evaluate additional management controls needed	X	X	X	X	X
Monitor and evaluate results	X	X	X	X	X
Reassess TMDL allocations					X
Provide periodic status reports on implementation of remedial activities	X	X	X	X	X
If needed, begin process for Phase II (next 5 years) and subsequent phases				X	X

IV. PROJECTED ATTAINMENT DATE AND BASIS FOR THAT PROJECTION:

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

V. MEASURABLE MILESTONES:

- Number of management controls and activities already implemented _____ 2 _____
- Number of management controls and activities proposed in five-year work program _____ 11 _____
- 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
City of Waycross	2/94 – 1/95	Fecal Coliform	Problems with leaks in system	See attachment #1

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	Multiple	Basin Planning	Ongoing
Southeast Health Unit	2001 until fecal coliform levels meet threshold	Fecal Coliform	To determine success of plan implementation.	Under development

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

ATTACHMENT #1

**CITY DRAINAGE CANAL
SPILL DATA – CITY OF WAYCROSS WASTEWATER TREATMENT PLANT
FECAL COLIFORM BACTERIA**

DATE	TIME	CANAL AT LABOR DEPARTMENT – COLONIES/100 ml	CANAL AT CROSS CREEK APARTMENTS – COLONIES/100 ml
2/2/94	10:00AM	11,267	5,200
2/3/94	7:35AM	18,960	7,340
2/4/94	7:40AM	19,100	5,250
2/5/94	7:26AM	22,167	4,200
2/6/94	7:24AM	35,000	2,500
2/7/94	7:46AM	14,200	4,600
2/8/94	7:46AM	30,000	5,000
2/15/94	8:27AM	15,800	6,700
2/28/94	9:00AM	24,000	2,000
3/8/94	8:24AM	14,600	1,600
4/4/94	9:35AM	1,500	1,300
5/3/94	8:58AM	2,300	3,650
6/7/94	8:25AM	27,500	33,800
7/12/94	9:20AM	2,600	1,200
8/10/94	9:00AM	637	0
9/20/94	8:00AM	867	1,590
11/15/94	8:00AM	1,357	1,053
1/19/95	8:05AM	380	2,200