

STATE OF GEORGIA

TMDL IMPLEMENTATION PLAN: Flowery Branch
(STREAM)

Fecal coliform BASIN: Chattahoochee
(PARAMETER) PLAN DATE: 3-5-01

Prepared by: Tom O'Bryant _____ _Georgia Mountains_____ Regional Development Center Address: _P. O. Box 1720_____ City: _Gainesville_____ State: _GA_____ Zip: _30503_____ e-mail: <u>tobryant@gmrdc.org</u> _____ Date Submitted to EPD: <u>3-26-01</u> _____	Or Prepared By: _____ Address: _____ City: _____ State: _____ Zip: _____ e-mail: _____ Date Submitted to EPD: _____
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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.
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TMDL ID (to be entered by EPD)	CHT0000017	Name/Organization	See Attachment A			
Water body name	Flowery Branch	Address				
HUC basin name	Chattahoochee River	City		State		Zip
HUC number	031300010804	Phone			e-mail	
Primary county	Hall	Name/Organization				
Secondary county		Address				
Primary RDC	Georgia Mountains	City		State		Zip
Secondary RDC		Phone			e-mail	
Water body location	Hall County, GA	Name/Organization				
		Address				
Miles or area impacted	1	City		State		Zip
Parameter addressed in plan	Fecal coliform	Phone			e-mail	
Water use classification	Fishing	Name/Organization				
Degree of impairment	Partially supporting use <input checked="" type="checkbox"/>	Address				
	Not supporting use <input type="checkbox"/>	City		State		Zip
Date TMDL approved by EPA		Phone			e-mail	
Impairment due to	Point sources	Name/Organization				
	Nonpoint sources <input checked="" type="checkbox"/>	Address				
	Both <input type="checkbox"/>	City		State		Zip

FORM B

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

EXISTING LOAD	TARGET TMDL	NEEDED REDUCTION
340 cfu/100 ml	150 cfu/100 ml	190 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)
Agriculture	Diffuse runoff of animal waste associated with erosion; runoff from Concentrated animal operations; spreading of animal waste or municipal sludge on fields; failing septic systems	60% reduction in loading from agriculture or pasture land uses.
Urban runoff	Intense urban land uses with impervious surfaces; illicit discharges; leaking sanitary sewer lines; failing septic systems	50% reduction in loading from urban impervious land uses.

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
Hall County	Erosion & Sedimentation Control Ordinance	Regulates land disturbing activities for clearing, grading, excavating or filling of land.	Enacted	Currently enforced
Hall County	Flood Damage Prevention Ordinance	Specifies construction methods and practices to minimize damage from flooding and the degree of hazard.	Enacted	Currently enforced
Hall County	Land Disturbing Checklist	For sites less than 1.1 acres, development standards and practices	Enacted	Currently enforced
Hall County Department of Environmental Health	Septic Tank Installation and Permitting	Requirements for inspection and certification that lots have been approved for an individual sewage system.	Enacted	Currently enforced
Hall County	Subdivision Regulations	Requires calculations for a 10 year storm, control of peak rate runoff for a 25 year storm and analysis of downstream impact	Enacted	Currently enforced
Hall County	Tree Preservation Ordinance	Requires a minimum tree density of 15 units per acre on site. Off site mitigation is prohibited.	Enacted	Currently enforced
Hall County	Standard Construction Practices for Water and Waste Water Systems	All community water and sewer systems must be designed by an engineer licensed in Georgia and approved by the Health Department and GA DNR	Enacted	Currently enforced.
For others See Attachment B				

Existing voluntary actions

RESPONSIBLE ORGANIZATION OR ENTITY	NAME OF ACTION	DESCRIPTION	ENACTED OR PROJECTED DATE (mm/yy)	STATUS
Hall County	Community Watershed Assessment and Management Plan (permit driven)	A effort designed to promote consistency in the water quality and Biological data, pollutant runoff and loading estimates, water quality modeling, and watershed management strategies.	3/2000	Under review by county.
Upper Chattahoochee Basin Group	Water Quality Study for Lake Lanier -319 grant	Developed watershed loadings and water quality response model.	2/1997	Implementation phase
GA Mountain Regional Development Center	Chattahoochee River Headwaters Management Program	Analysis of existing water protection programs, and development of a regional watershed management plan	11/1998	On-going
Hall County	Agricultural Education	County working cooperatively with state and federal agencies in assisting farmers to help protect water resources.	Enacted	On-going

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
See Attachment C for additional measures.	Program	Develop additional agricultural education/demonstration programs	TBA	TBA
	Program	Develop agricultural cost/share program.	TBA	TBA
	Program	Develop a county wide Adopt-A-Stream Program	TBA	TBA
	Projects	Watershed Restorations and Retrofits Improvements	TBA	TBA
	Erosion Control	Requirements for all sites; ordinance improvements	TBA	TBA
	Storm Water	Capture first 1 inch of rainfall; manual improvements	TBA	TBA

III. SCHEDULE FOR IMPLEMENTING MANAGEMENT MEASURES OR OTHER CONTROL ACTIONS: **See Attachment D**
 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					
Organize implementation work with stakeholders and local officials to identify remedial measures and potential funding sources					
Identify sources of TMDL parameter					
Develop management programs to control runoff including identification and implementation of BMPs (Phase I):					
Agriculture					
Forestry					
Urban					
Mining					
Organize and implement education and outreach programs					
Detect and eliminate illicit discharges					
Evaluate additional management controls needed					
Monitor and evaluate results					
Reassess TMDL allocations					
Provide periodic status reports on implementation of remedial activities					
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 EPA.

V. MEASURABLE MILESTONES:

- Number of management controls and activities already implemented _____11_____
- Number of management controls and activities proposed in five-year work program _____24_____
- 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
Upper Chattahoochee Basin Group	1996-1997	DO, nutrients ,fecal, TSS,	Watershed loading and water quality response models	Partial implementation
USEPA Clean Lakes Study/UGA	1998	DO, nutrients, fecal, TSS, metals, biota, fish tissue	US EPA report of the water quality conditions in Lake Lanier.	Completed
City of Gainesville	1984 to present	DO, Temp, BOD, TSS, pH, solids, phosphorous, fecal, TKN, NN, ALK, etc.	Part of city utility sampling program that includes 15 creek systems.	On going
South Hall County Watershed Assessment	1997-1998	Phosphorous, NN, ammonia, TKN, TSS, metals, fish, benthic macroinvert	Performed in response to the county's request for additional discharge into Lake Lanier.	Partially implemented
USGS National Water Quality Assessment Program	1992-1999	Temp, cfs, NTU, DO Conduct, pH, NN, phos, metal, fish	Part of the NAWQA program	On going
Hall County/Gainesville Watershed Assessment and Management Plan	1999-2000	DO, temp, BOD, pH TSS, solids, phos, TKN, NN, alk, fecal, turbidity, metals, fish, macroinverts, conduct, etc.	GA DNR EPD Permit Driven	Under review by county
Georgia Mountains Regional Development Center	1999-2001	Development and enforcement practices	US EPA State Wetland Grant Program. Regional study in Lake Lanier Basin.	Completed in July 2001
For others See Attachment E				

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	2000	DO, temp, BOD, pH TSS, solids, phos, TKN, NN, alk, fecal, turbidity, metals, fish, macroinverts, conduct, etc.	basin planning	On going
Hall County - Nonpoint source monitoring program (short and long term)	2001-2006	TSS, nutrients, metals, temp, fish, macro inverts.	Measure effectiveness of management plan and recommended BMPs.	Under review by county
Adopt-A-Stream	2001-2006	Biological monitoring	Public outreach program	Under review by county
Hall County - Stream Walks	2001-2006	Visual survey and habitat assessment	Quarterly stream walks to assess conditions and identify illicit discharges.	Under review by county
Hall County	2001-2001	Biological monitoring	Bi-annual biological monitoring to assess stream health.	Under review by county.
For others See Attachment F				

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

Flowery Branch will need to be added to those sites identified in the long term monitoring strategy of the watershed assessment.

See Attachment G: Preliminary Implementation Budget from Watershed Assessment.
