

STATE OF GEORGIA
TIER 2 TMDL IMPLEMENTATION PLAN REVISION ___
Turkey Creek
Flint River Basin Flint

Local Watershed Governments: Coweta County

I. INTRODUCTION

Total Maximum Daily Load (TMDL) Implementation Plans are platforms for evaluating and tracking water quality protection and restoration. These plans have been designed to accommodate continual updates and revisions as new conditions and information warrant. In addition, field verification of watershed characteristics and listing data has been built into the preparation of the plans. The overall goal of the plans is to define a set of actions that will help achieve water quality standards in the state of Georgia.

This implementation plan addresses the general characteristics of the watershed, the sources of pollution, stakeholders and public involvement, and education/outreach activities. In addition, the plan describes regulatory and voluntary practices/control actions (*management measures*) to reduce pollutants, milestone schedules to show the development of the management measures (*measurable milestones*), and a monitoring plan to determine the efficiency of the management measures.

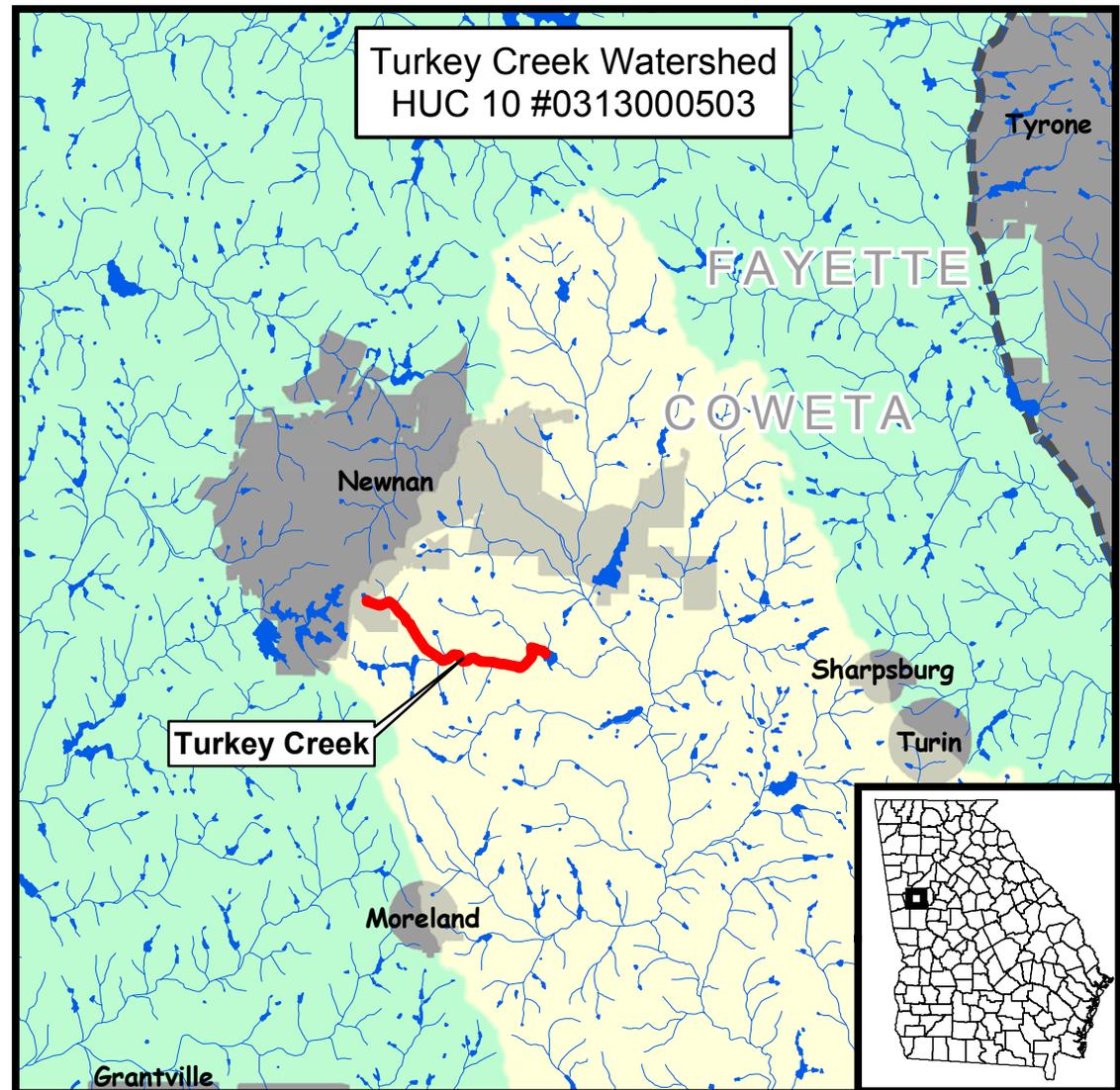


Table 1. IMPAIRMENTS

IMPAIRED STREAM SEGMENT	IMPAIRED SEGMENT LOCATION	IMPAIRMENT
Turkey Creek	Newnan to Reese Lake	Fecal Coliform Bacteria
White Oak Creek*	Chandlers Creek to Bear Creek	Low Dissolved Oxygen

* Plan will be written by GA EPD

II. GENERAL INFORMATION ABOUT THE WATERSHED

Write a narrative describing the watershed. Include an updated overview of watershed characteristics. Identify new conditions and verify or correct information in the TMDL document using the most current data. Include the size and location of the watershed, political jurisdictions, and physical features which could influence water quality. Describe the source and date of the latest land cover/use for the watershed. Describe and quantify major land uses and activities which could influence water quality. See the instructions for more information on what to include.

Watershed Characteristics, Size and Location: Turkey Creek is located in eastern Coweta County east of the City of Newnan in the Piedmont region of Georgia. The affected reach is 4 miles long and the watershed encompasses 3538 acres. There is one NPDES permit issued to Autumns Gate Mobile Home Park off Route 16, and one Hazardous site within the watershed.

Land Use/ Land Cover: Land cover data from the TMDL was collected in 1995. At this time there is no other quantitative land use data for the watershed. 2004 satellite imagery gives general information (see attachment)

Relevant Watershed Planning and Management Activities:

319 Grants: In 2000 Rolling Hills RC&D Council received a 319 grant to construct poultry litter stack houses with farmers in their region. The grant was not specific to Turkey Creek watershed, however farmers in the Coweta County portion of the watershed were eligible to participate.

SW Permit Program: As part of Metropolitan North Georgia Water Planning District, Coweta County is in the process of setting up a Storm Water Management Program. The County submitted its Notice of Intent (NOI) in 2003. It had not received final approval at the time this document was written. The NOI describes Best Management Practices the County will implement concerning public education, public involvement, illicit discharge, construction site runoff, post construction stormwater management and pollution prevention. In addition the County is required to adopt the following six storm water ordinances by spring 2005: Conservation Subdivision Ordinance, Litter Control Ordinance, Illicit Discharge and Illegal Connection Ordinance, Post Construction SW Management Ordinance, Floodplain Damage Prevention Ordinance, and Stream Buffer Ordinance.

E&S Program: Coweta County is revising their Soil Erosion & Sedimentation Control Ordinances to meet the new state requirements. Permitting is done during the plan review process. The county engineer is responsible for enforcing the ordinance. Coweta County has a Memorandum of Agreement with Georgia Soil and Water Conservation Society to issue land disturbance permits.

TURKEY CREEK

COMPLETE THE FOLLOWING TABLES FOR AND NARRATIVES ABOUT EACH IMPAIRED STREAM IN THE WATERSHED.

STREAM SEGMENT NAME	LOCATION	MILES/AREA	DESIGNATED USE	PS/NS
Turkey Creek	Coweta County	4 mi. /3538 acres	Fishing	NS

NOTE: Available data was not sufficient to calculate a 30-day geometric mean

III. SOURCES AND CAUSES OF STREAM SEGMENT IMPAIRMENT LISTED IN TMDLs

After reviewing the TMDLs written for this stream, complete the following tables with **the information found in the TMDLs**. List each parameter for which the stream segment is impaired and the water quality standard violated. See the instructions for the water quality standards. Describe the sources and causes of each violation identified in the TMDLs.

Table 2. SOURCES OF IMPAIRMENT AS INDICATED IN TMDLs

PARAMETER 1	WQ STANDARD	SOURCES OF IMPAIRMENT	NEEDED REDUCTION FROM TMDL
Fecal Coliform	1,000 per 100 ml (geometric mean Nov-April) 200per 100ml (geometric mean May-Oct)	Urban runoff, nonpoint surces, unknown sources.	67%

IV. IDENTIFICATION AND RANKING OF POTENTIAL SOURCES OR CAUSES OF IMPAIRMENT

INVESTIGATE AND EVALUATE the sources of impairment for each parameter listed in Table 2. Write a narrative describing efforts made or procedures used to verify the significance and extent of the sources or causes of each impairment listed in the TMDLs. Include:

- Involvement of stakeholder group
- Field surveys
- Review of land cover data
- Evaluation of sources

Review of Land Cover Data

At the time this report was written, the TMDL contained the most current quantitative land use data. The basis of the review below is the comparison between the TMDL data, 2004 satellite imagery and observations made during the field survey.

The TMDL attributes 47.5% of land use in the watershed to Forest. This percentage seems accurate based on satellite imagery and field surveys.

The TMDL attributes 14.6% of land use in the watershed to Low Intensity Residential. This percentage seems accurate based on satellite imagery and field surveys.

The TMDL attributes 10.3% of land use in the watershed to High Intensity Commercial/Industrial/Transportation.

The TMDL attributes 9.8% of land use in the watershed to Row Crops. No row cropping was identified in satellite imagery and none was observed during field surveys. Stakeholders stated that there was not row cropping in the watershed.

The TMDL attributes 7.3% of land use in the watershed to Urban/Recreational Grasses. The 27-hole Orchard Hills Golf Club dominates the middle watershed along I-85 and occupies 15-20% of the watershed. This category of land cover is closer to 20% of the watershed than the 7.3% stated in the TMDL.

The TMDL attributes 4.3% of land use in the watershed to Transitional. There is no further data on this land use. For the purpose of this report it is assumed that the TMDL data is accurate.

The TMDL attributes 3.2% of land use in the watershed to Woody Wetlands. This percentage seems accurate based on satellite imagery and field surveys.

The TMDL attributes 1.6% of land use in the watershed to High Intensity Residential. This land use is a higher percentage of the watershed than is stated in the TMDL. There is one mobile home park in the western portion of the watershed and another in the southeast, off Highway 16. The established neighborhood north of East Newnan Lake can be described as medium to high density. This land use occupies approximately 5-7% of the watershed. Autumn's Gate Mobile Home Park on Highway 16 held an NPDES permit from 1978 to

2003 to discharge several parameters, including fecal coliform, into a tributary of Turkey Creek. In 2003, after a year of reporting violations, the permit expired.

The TMDL attributes 1.4% of land use in the watershed to Open Water. There are three large lakes in the watershed as well as numerous private ponds. This land use occupies approximately 5% of the watershed.

The TMDL attributes 0% of land use to Pasture & Hay. During the field survey, CFRDC staff observed one area of overgrown pasture with several cows in the eastern watershed and a large hayfield in the southern watershed. These areas could account for up to 5% of the watershed.

Evaluation of Potential Sources

Fecal coliform sampling for Turkey Creek was conducted over a 20-day period in 1992 at six sampling points. The sampling data from 1992 shows elevated fecal levels at all sampling points except for the Shaw Industries outfall. Samples were most elevated in the upper watershed upstream of Shaw Industries. Samples in the lower watershed were also high, particularly at the sampling point downstream of Fawn Hollow Mobile Home Park (now Valley MHP). This data indicates that in 1992 the main sources originated from the residential neighborhoods (including the mobile home park now named Valley Mobile Home Park) in the upper watershed, the effluent from Autumn's Gate (formerly Fawn's Hollow) Mobile Home Park and runoff from some activity between Shaw industries and I-85.

Conditions in the watershed have changed significantly since 1992. The major changes have been the closing of Shaw Industries, the development of Orchard Hills Golf Course and the sewerage of most of the watershed. These factors, and the inadequacy of the existing data, make it difficult to know the actual levels and causes of impairment in 1992 and 2004. EPD-sponsored sampling scheduled for 2005 will help clarify these issues. The data should be used to update this Implementation Plan as soon as it is available.

The TMDL does not specify possible sources. It does state the impairment originates from the broad categories listed and underlined below. Below each category is an evaluation of possible sources that were either observed during field survey, identified using satellite imagery or identified by stakeholders.

Urban Runoff & Point Sources

Leaking Septic Systems: Currently Newnan Utilities serves most of the watershed with sewer. Faulty septic systems may still be in operation (see below).

Leaking Sewer Lines: Sewer lines cross Turkey Creek in several locations. Although there are no suspected leaks at this time, any leak near a stream would have a large contribution to the fecal load. During the field survey in June 2004, CFRDC staff observed a sewer problem in Valley Mobile Home Park. Although the park appeared to be on City Sewer, staff saw foul-smelling wastewater in a drainage ditch and observed backed-up wastewater in two water control boxes. It was unclear if the problem was from a still-used septic system, a leaking sewer pipe or faulty plumbing. This was the most likely contributor the fecal loads observed during the field survey. See Appendix C Image 1a. & 1b.

Private Wastewater Systems: Autumn's Gate Mobile Home Park operated a private system from 1978 to 2003. During the site visit it appeared that the park had been on public sewer for some time. The 1992 fecal coliform sampling at this site showed more than two times the acceptable fecal load. This source very likely had a significant contribution to the fecal load in 1992. Autumn's Gate Mobile Home Park on Highway 16 held an NPDES permit to discharge several parameters, including fecal coliform into a tributary of Turkey Creek from 1978 to 2003. In 2003, after a year of reporting violations, the permit expired.

Non Point Sources:

Agriculture/Livestock: During the field survey CFRDC staff observed very limited grazing livestock. Stakeholders stated that livestock grazing was not a significant land use in the watershed. At this time, this potential source can be ruled out a significant contributor.

Wildlife (Deer, Beaver and water Fowl): A large portion of the watershed is undeveloped with forest area, ponds and wetlands. It is likely that wildlife; particularly waterfowl and beaver are abundant in the watershed and have an impact on the fecal loads.

To the extent possible, identify sources and quantify the extent of pollution in the stream segment for each of the parameters listed in Table 2 and evaluate the likely impact on the parameter load to the stream. This should follow research performed and described in preceding narrative and should correct or add information to the TMDLs. **The SOURCES SHOULD BE RANKED** from those having the most impact to those having the least impact. The estimated extent of contribution can be expressed as the area of the watershed effected, the stream miles effected, or the number of activities contributing to the problem. The magnitude of contribution should be estimated to be large, moderate, small, or negligible.

Table 3. CONCLUSIONS MADE OF POTENTIAL SOURCES OF STREAM SEGMENT IMPAIRMENT

PARAMETER 1	POTENTIAL SOURCES	ESTIMATED EXTENT OF CONTRIBUTION	ESTIMATED MAGNITUDE OF CONTRIBUTION	COMMENTS
Fecal Coliform	Aging septic or faulty connection to sewer system	Mid to lower watershed	Large	Standing wastewater observed. Source undetermined
	Private Wastewater treatment facilities	Mid watershed	Small	Possible significant past contributor. See Evaluation of Sources.
	Wildlife	Upper watershed	Small to Moderate	Population of wildlife and actual contribution is difficult to determine
	Livestock/Agriculture	Lower Watershed	Small	Few activities in watershed

V. STAKEHOLDERS

PUBLIC INVOLVEMENT AND THE ACTIVE PARTICIPATION OF STAKEHOLDERS is essential to the process of preparing TMDL implementation plans and improving water quality. Stakeholders can provide valuable information and data regarding their community, impaired water bodies, potential causes of impairments, and management practices and activities which may be employed to reduce the impacts of the causes of impairment.

Describe outreach activities to advise and engage stakeholders in the TMDL implementation plan preparation process. Describe the stakeholder group employed or formed to address the impaired segments in the watershed. Summarize the results of the number of attendees and meetings and describe major findings, recommendations, and approvals.

Stakeholders were notified of the project by mail. An article describing the project also appeared in all the local newspapers. The letter received by individual stakeholders and the article described three ways for interested parties to engage in the process; 1) attend one of five county stakeholder meetings, 2) contact CFRDC staff directly through e-mail or by phone, and 3) view and comment on the draft plans on the CFRDC website between June 28th and July 14th 2004.

Press Releases: Two Press Releases ran in local newspapers during the course of the project. The first ran in early May 2004. It alerted readers to the project, meeting times and ways to participate. The second ran in early October 2004. It gave an update on the project and asked for participation through direct contact with staff or by reviewing the plans on CFRDC's website.

Meetings: Meetings were held in each of CFRDC's five counties (see attachment). CFRDC staff developed presentation boards for the meetings that contained a map of each of the nine affected streams, land use data that had been provided in the TMDL, and preliminary findings, if any. Sampling data was also provided for all the streams. After a short presentation, participants were asked to examine and comment on the data and offer insight into current watershed conditions. Participants were supplied with comment sheets. One landowner each attended the Heard County and Coweta County meetings. Stakeholders from Coweta County, the Georgia Forestry Commission, the NRCS and other agencies with an interest in Hilly Mill Creek Watershed attended the Coweta County Meeting. Information about all nine watersheds was presented at each meeting because many stakeholders had an interest in watersheds in more than one county.

Comments from Website: the nine TMDL Implementation Plans were posted on CFRDC's website beginning June 28th 2004 for the purpose of receiving comment. Stakeholders who attended meeting of contacted CFRDC staff directly were asked to visit the website and comment on the drat plans.

Advisory Group: CFRDC formed a Water Issues Committee (WIC) in 2000 for the purpose of guiding the agency on TMDL, Source Water Assessment Plans and other water related issues. The WIC consists of two or more representatives from each county who were appointed buy the local governments. During this TMDL process, this group met in mid July 2004 to review draft plans and develop public outreach activities.

Major Findings and Comments from Stakeholder Involvement:

1. Data needs to be updated for accurate picture of potential pollutants

General Comments

I think the data needs to be updated and the causes determined, before making recommendations on how to improve.”

“More ground pounding needs to be done by the people that can get things done. Seeing the presence of GFC, EPD in a friendly way helps much. Too much of what is seen of EPD is only on TV or in a few law enforcement cases.

More ground pounding needs to be done by people gathering and using the data for watershed management plans. Using satellite imagery is great for figuring land use statistics only as long as it is checked on the ground.

Consideration has to be given to the fact that it took hundreds of years of human misuse to cause our problems we see today and no law or education is going to change things in only a few years. We as citizens need to get serious about solving the problems instead of just looking like we are solving them. There is more talk, monitoring, and laws about soil disturbances than ever, but nearly every construction site I see is still putting silt in streams because of improper installation or maintenance of sediment control structures. Sometimes just the installation of silt fence causes a major problem. These comment sheets are a good start if used.”

List the watershed or advisory committee members of the stakeholder group for this segment in the following table.

Table 4. COMMITTEE MEMBERS

NAME/ORG	ADDRESS	CITY	ST	ZIP	PHONE (W)	PHONE (H)
Denny Ivey/CFRDC Water Issues Committee	103 Carroll Circle	Carrollton	GA	30117	770-832-2171	
Brenda Rice/CFRDC Water Issues Committee	300 Old Goldmine Road	Villa Rica	GA	30180	770-830-6673	
Loren McCune/CFRDC Water Issues Committee	PO Box 428	Newnan	GA	30264	770-253-2020	770-253-9357
David Brown/CFRDC Water Issues Committee	1770 Al Robert Road	Senoia	GA	30276		770-599-1830
Robert Blackburn/CFRDC Water Issues Committee	200 Joe Ben Lee Road	Newnan	GA	30263	770-253-6990	770-253-6728
Bob Jones/CFRDC Water Issues Committee	252 Jones Road	Franklin	GA	30217	706-675-3053	706-675-3049
Doug Craven/CFRDC Water Issues Committee	2404 Armstrong Mill Road	Franklin	GA	30217		770-854-8186
C.E. Withrow/CFRDC Water Issues Committee	940 Linda Lane	Manchester	GA	31816	706-846-3525	
Bill Tomlin/CFRDC Water Issues Committee	807 McCurdy Boulevard	Manchester	GA	31816		706-846-2717
A.J. McCoy/CFRDC Water Issues Committee	571 Alvaton Road	Gay	GA	30218	404-506-0919	772-927-9055
Arthur Holbrook/CFRDC Water Issues Committee	215 Cofield Road	LaGrange	GA	30240		706-884-7905
Buck Davis/CFRDC Water Issues Committee	1134 Young's Mill Road	LaGrange	GA	30240		706-884-1621
David Brown/CFRDC Water Issues Committee	Post Office Box 430	LaGrange	GA	30241	706-883-2000	

In Appendix A, list the names, addresses, telephone numbers, and e-mail addresses for local governments, agricultural or commercial forestry organizations, significant landholders, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

VI. MANAGEMENT MEASURES AND ACTIVITIES

Describe any management measures or activities that have been put into place or will be put into place including regulatory or voluntary actions or other controls by governments or individuals that specifically apply to the pollutant that will help achieve water quality standards. Include who will be responsible for the measure, how it will be funded, the status, the date it will be or was initiated, and a short description of how effective the measure is or will be.

Table 5. MANAGEMENT MEASURES AND ACTIVITIES

MEASURES APPLICABLE TO FECAL COLIFORM

MEASURE	RESPONSIBILITY	DESCRIPTION	SOURCE OF FUNDING	STATUS	ENACTED/ IMPLEMENTED	EFFECTIVENESS (Very, Moderate, Weak)
NPDES Permitting	EPD Permittee	Permittee monitors discharges to determine if they are within allowable limits and files a report to EPD	EPD Permittee	Underway		Very.
NRSC BMP Programs	NRSC Property Owner	Various voluntary programs to assist landowners with BMPs	Federal Property Owner	Underway		Moderate, agriculture does not appear to be a significant factor.
Enforcement of E & S Ordinance		Requires erosion control plans for all new development over 1.1 acres	County	Underway	Summer 2004	Moderate effective if properly enforced.
Implementation of Stormwater Management Program	Coweta County	BMPs concerning public education, public involvement, illicit discharge, construction site runoff, post construction stormwater management and pollution prevention., and the adoption of six ordinances	County	Underway, full implementation by 2005	March 2003	Moderate.
Public Outreach	CFRDC	CFRDC will distribute findings of Implementation Plans to local governments, agencies and citizen groups.	Local	Planned	Sept-Dec. 2004	Moderate

VII. MONITORING PLAN

The purposes of monitoring are to obtain more data, to determine the sources of pollution, to describe baseline conditions, and to evaluate the effects of management and activities on water quality. Describe any sampling activities or other surveys - active, planned or proposed - and their intended purpose. Reference the development and submission of a Sample Quality and Assurance Plan (SQAP) if monitoring for delisting purposes.

Table 6. MONITORING PLAN

PARAMETER(S) TO BE MONITORED	ORGANIZATION	STATUS (CURRENT, PROPOSED, PLANNED)	TIME FRAME		PURPOSE (If for delisting, date of SQAP submission)
			START	END	
All	Georgia EPD	Planned	2005	2005	Basin Monitoring

VIII. PLANNED OUTREACH FOR IMPLEMENTATION

List and describe outreach activities which will be conducted to support this plan and the implementation of it.

Table 7. PLANNED OUTREACH

RESPONSIBILITY	DESCRIPTION	AUDIENCE	DATE
CFRDC	TMDL section on CFRDC web page will contain all Implementation Plans, information about the TMDL process, links to other web pages and an area for comments	Local governments and some citizens	Starts July 2004 and continues indefinitely
CFRDC	News releases in all local papers when final plans are approved	Residents and Stakeholders	December 2004

IX. MILESTONES/ MEASURES OF PROGRESS OF BMPs AND OUTREACH

This table will be used to **track and report progress of management measures including BMPs and outreach**. Record milestone dates for:

- accomplishment of management practices or activities
- outreach activities
- installation of BMPs

to attain water quality standards. Comment on the effectiveness of the management measure, how much support the measure was given by the community, what was learned, how the measure might be improved in the future, and any other observations made. This table can be "pulled out" of this template and used to report and track progress.

Table 8. MILESTONES

MANAGEMENT MEASURE	RESPONSIBLE ORGANIZATIONS	STATUS		COMMENT
		PROPOSED	INSTALLED	
NPDES Permitting	EPD Permittee	N/A	N/A	Ongoing Program
NRSC BMP Programs	NRCS Landowner	N/A	N/A	Ongoing Program
Enforcement of E & S Ordinance	County	Revised 2004	Adopted 2004	
Implementation of Stormwater Management Program	Coweta County	2003	Ongoing	Program will be implemented in phases. Not watershed specific
TMDL Section on CFRDC Website	CFRDC	May 2004	July 2004	On-going

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Date Submitted to EPD:	November 5 2004	Revision:	

APPENDIX A.

STAKEHOLDERS

List the names, addresses, telephone numbers, and e-mail addresses for local governments, agricultural or commercial forestry organizations, significant landholders, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

NAME/ORG	ADDRESS	CITY	STATE	ZIP	PHONE	E-MAIL
Mr. William N. Banks, Jr.	784 Highway 29 South	Newnan	GA	30263	-NA-	-NA-
Lower Fayetteville Ventures	P.O. Box 1832	Newnan	GA	30263	-NA-	-NA-
Pond Enterprises LP	132 Woodbine Circle	Newnan	GA	30263	-NA-	-NA-
Mr. J.R. McMichael	159 Poplar Road	Newnan	GA	30263	-NA-	-NA-
Mr. Cyril M. Budgen	580 Walton Road	Newnan	GA	30263	-NA-	-NA-
Orchard Hills Golf Inc.	P.O. Box 1832	Newnan	GA	30264	-NA-	-NA-
Parks Road Investment LLC	315 Farmer Industrial Blvd.	Newnan	GA	30263	-NA-	-NA-

APPENDIX B.

UPDATES TO THIS PLAN

Describe any updates made to this plan. Include the date, section or table updated, and a summary of what was changed and why.

**APPENDIX C.
EXHIBITS**



Image 1a. Left. The smell of wastewater was noted in this drainage ditch at Valley Mobile Home Park

Image 1b. Right. Drainage ditch at Valley Mobile Home Park drains household wastewater and runoff from junkyard in background.



Attachments

Meeting Time & Places Flier (hard copy only)
Sample Press Release # 1 (hard copy only)
Sample Press Release #2 (hard copy only)
2004 Satellite Image (hard copy only)
