

STATE OF GEORGIA

TIER 2 TMDL Implementation Plan (Revision # 01)

Segment Name: Salacoa Creek Date: 9/30/2009

River Basin: Coosa River Basin

Local Watershed Governments: Gordon County, Bartow County, Pickens County, Cherokee County, City of Ranger, City of Fairmount.

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 non-point pollution, stakeholders and public involvement, and education/outreach activities. In addition, the plan describes regulatory and voluntary practices/control actions (Best Management Practices, or BMPs) to reduce non-point sources of pollutants, milestone schedules to show development of the BMPs (*measurable milestones*), and a monitoring plan to determine BMP effectiveness.

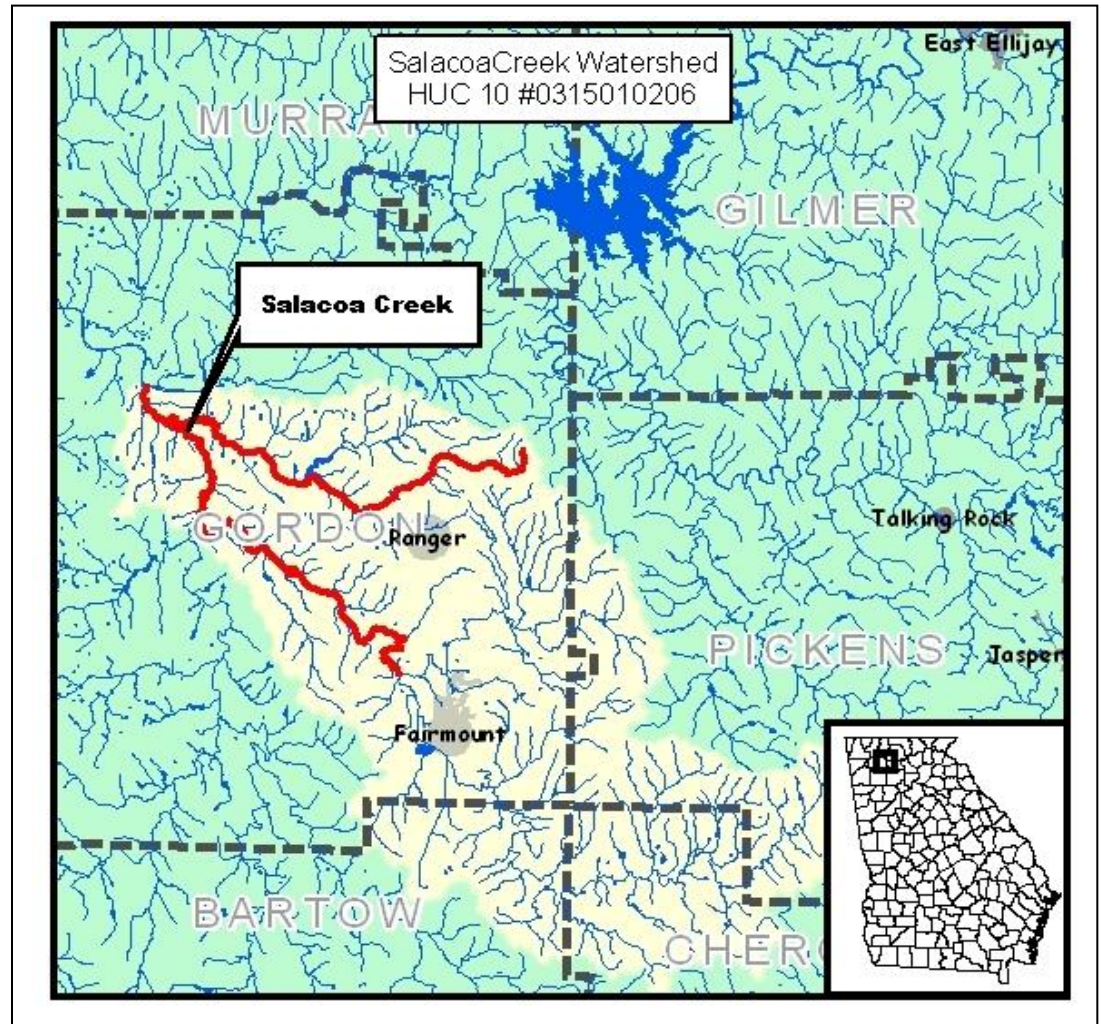


Table 1. IMPAIRED SEGMENTS IN THE HUC 10 WATERSHED

| IMPAIRED SEGMENT | IMPAIRED SEGMENT LOCATION | EXTENT (mi/ac) | CRITERIA VIOLATED | EVALUATION |
|------------------|--|----------------|-------------------|----------------|
| Salacoa Creek | Pine Log Creek to Coosawattee River (Gordon) | 6 | Fecal Coliform | Not Supporting |

II. GENERAL INFORMATION ABOUT THE HUC 10 WATERSHED AND THE INDIVIDUAL IMPAIRED SEGMENT

This section reviews HUC 10 watershed characteristics followed by pertinent information on the drainage delineation of the individual stream segment.

General Information about the HUC 10

The 0315010206 HUC 10 watershed drains an area of 73,961 acres or 116 square miles. It stretches from the southeast in Pickens, Cherokee, and Bartow Counties to the northwest in Gordon County, which contains more of the watershed than any of the other counties. Taking the land use of all of Bartow County and Gordon County together to be representative of the HUC 10's land use- as they make up most of the watershed – it is seen that the area is mostly forested with the developed land being mostly agricultural.

Gordon County's Predominant Land Use

| Forestland: % of Total/ Acres | Land in Farms: % of Total Land/ Acres | Harvested Cropland: % of Total Land/Acres |
|--------------------------------------|--|--|
| 53.4% / 121, 600 | 34.8%/ 79,128 | 10%/ 22,794 |

Bartow County's Predominant Land Use

| Forestland: % of Total/ Acres | Land in Farms: % of Total Land/ Acres | Harvested Cropland: % of Total Land/Acres |
|--------------------------------------|--|--|
| 65.2 % / 191,800 | 22.1%/ 65,106 | 5.3% / 15,565 |

Source: georgiastats.uga.edu (2007)

The physiographic type of this area is defined as the Ridge and Valley region in Georgia. The ridges in this area are typically composed of chert and capped sandstone, while the valleys are usually limestone or shale. The thicker, more fertile soils typically form in the valleys from erosion of soil at higher elevations and the weathering of parent material. The weathering of sandstone and chert on ridges help form the acidic soils which maintain the forested areas of this region.

Potential Sources

The potential non-point sources of fecal coliform in the watershed are of both the point and non-point source variety. A point source is defined as a discernable, confined, and discrete conveyance from which pollutants are or may be discharged to surface waters. Nonpoint sources are diffuse, and generally, but not always, involve accumulation of fecal coliform bacteria on land surfaces that wash off as a result of storm events.

Point Sources in the Watershed

Title IV of the Clean Water Act establishes the National Pollutant Discharge Elimination System (NPDES) permit program. Basically, there are two categories of NPDES permits: 1) municipal and industrial wastewater treatment facilities, and 2) regulated stormwater discharges. There are no such stormwater discharges in this sub-watershed, though Bartow County is regulated for its stormwater discharges.

Wastewater Treatment Plants

In general, industrial and municipal wastewater treatment facilities (abbreviated WWTP or WPCP) have NPDES permits with effluent limits. These permit limits are either based on federal and state effluent guidelines (technology-based limits) or on water quality standards (water quality-based limits). These WWTPs/WPCPs should be treated as potential sources, though their potential contribution is limited by the tight regulations that include stringent monitoring and management requirements. These regulations are based off of technology-based guidelines that the EPA has developed, which establish a minimum standard of pollution control for municipal and industrial discharges without regard for the quality of the receiving waters. These are based on Best Practical Control Technology Currently Available (BPT), Best Conventional Control Technology (BCT), and Best Available Technology Economically Achievable (BAT). The level of control required by each facility depends on the type of discharge and the pollutant.

NPDES WWTPs – Salacoa Creek

| Facility Name | Receiving Waterway | Type of Facility | Discharge Flow (MGD) | Permit Number |
|-----------------|-------------------------|------------------|----------------------|---------------|
| Fairmount WPCP* | Salacoa Creek Tributary | Municipal/ LAS | .14 | GA0046388 |

* This facility is several miles upstream from the segment.

Source: EPD Data

Nonpoint Sources

Wildlife Sources

The importance of wildlife as a source of fecal coliform bacteria in streams varies considerably, depending on the animal species present in the watersheds. Based on information provided by the Wildlife Resources Division (WRD) of GA DNR, the animals that spend a large portion of their time in or around aquatic habitats are the most important wildlife sources of fecal coliform. Waterfowl, most notably ducks and geese, are considered to potentially be the greatest contributors of fecal coliform. This is because they are typically found on the water surface, often in large numbers, and deposit their feces directly into the water. Other potentially important animals regularly found around aquatic environments include raccoons, beavers, muskrats, and to a lesser extent, river otters and minks. Recently, rapidly expanding feral swine populations have become a significant presence in the floodplain areas of all the major rivers in Georgia. Population estimates of these animal species in Georgia are currently not available.

White-tailed deer populations are significant throughout the Coosa River Basin. Fecal coliform bacteria contributions from deer to water bodies are generally considered less significant than that of waterfowl, raccoons, and beavers. This is because a greater portion of their time is spent in terrestrial habitats. This also holds true for other terrestrial mammals such as squirrels and rabbits, and for terrestrial birds (GA WRD, 2002).

Agricultural Sources

Agricultural livestock are a potential source of fecal coliform to streams in the Coosa River Basin. The animals grazing on pastureland deposit their feces onto land surfaces, where it can be transported during storm events to nearby streams. Animal access to pastureland varies monthly, resulting in varying fecal coliform loading rates throughout the year. Beef cattle spend all of their time in pastures, while dairy cattle and hogs are periodically confined. In addition, agricultural livestock will often have direct access to streams that pass through their pastures, and can thus impact water quality in a more direct manner (USDA, 2002). The following tables provide the estimated amount of farm animals in Gordon and Bartow County for livestock and chicken.

Livestock population by County (Bartow & Gordon)

| County | Beef Cows, Total Head | Beef Stockers | Dairy Cows | Horses Raised | Horses, Boarding/Breeding/ Training | Sheep, # of ewes | Goats, total nannies | Pork, Farrow to Finish | Pork, Feeder Pigs, Total Head |
|---------------|-----------------------|---------------|------------|---------------|-------------------------------------|------------------|----------------------|------------------------|-------------------------------|
| Bartow | 14,500 | 8,000 | 0 | 700 | 4,000 | 200 | 1,800 | 100 | 150 |
| Gordon | 12,800 | 4,200 | 0 | 760 | 200 | 80 | 1,800 | 0 | 0 |

Source: georgiastats.uga.edu (2008)

The majority of poultry farms in Georgia are dry manure operations where the manure is land applied. This can be a nonpoint source for fecal coliform bacteria. Chicken litter (manure) that is not properly stored or covered from the elements could also lead to fecal runoff. Chicken litter is also commonly spread on fields as a natural fertilizer, which expands the area of potential chicken waste contamination beyond just chicken farms. This chicken litter is usually spread on farms within a small radius of the chicken farm. Current federal regulations require that large poultry farms operate under an NPDES permit. There are many chicken farms in Gordon County and some upstream in Bartow County that may be a source of the fecal coliform pollution. The below chart lays out an approximate number of chickens in each county from all chicken operations, broken down by types of chickens. The numbers are an approximate number based on the exact number of houses in each county multiplied by the average capacity of the typical chicken house in the counties.

Gordon and Bartow County Chicken Population, by type (thousands)

| County | Breeder Pullet Unit | Broiler Chickens | Hatching Layers | Table Layers | Totals |
|---------------|---------------------|------------------|-----------------|--------------|----------|
| Bartow | 144 | 5,850 | 220 | 0 | 6,214 |
| Gordon | 408 | 11,180 | 686.4 | 100.5 | 12,374.9 |

Source: georgiastats.uga.edu (2007)

Agriculture in Northwest Georgia has been experiencing a long-term declining trend along with the increase of development. This is borne out by both conversations with USDA personnel at stakeholder meetings, other stakeholder input, and by the county farm numbers, which show an across the board decrease in the amount of farmland and harvested acreage. Plus, livestock is more often than not slowly decreasing year to year or just staying the same. Poultry levels have plateaued off region-wide. Still, agriculture remains a potential nonpoint source of fecal coliform pollution, but the scope of agriculture in the watershed and any decrease in the size should be considered in the establishment of potential causes of the pollution.

Urban Sources

The Salacoa Creek watershed is mostly forested and agricultural, which is representative of Gordon and Bartow counties' land use as a whole. Urban development does remain a potential source for fecal coliform contamination though. Even small low- or high-density developments can have an adverse impact.

Urban/Rural Demographics of Gordon and Bartow County

| County | County Pop., 2000 Census | Density/mi², 2007 | Population Projection for 2010¹ | Density/mi² Projection in 2010 | % of pop. in rural land, 2000 | % of pop. in urban area, 2000 |
|---------------|---------------------------------|-------------------------------------|---|--|--------------------------------------|--------------------------------------|
| Bartow | 76,019 | 202.1 | 110,819 | 217.6 | 41.2 | 58.8 |
| Gordon | 44,104 | 146.7 | 55,506 | 155.5 | 65.8 | 34.2 |

Sources: All georgiastats.uga.edu (2007) except for 1: North Georgia RDC

Fecal coliform originating in urban areas are attributable to multiple sources including: domestic animals, leaks and overflows from sanitary sewer systems, illicit discharges of sewage from older or illegal hookups of sewer lines into stormwater systems, leaking septic systems (whether from urban or rural households), runoff from improper disposal of waste materials, and leachate from both operational and closed landfills. Urban runoff can contain high concentrations of fecal coliform from domestic animals and urban wildlife. Fecal coliform bacteria enter streams by direct washoff from the land surface, or the runoff may be diverted to a storm water system and discharged through a discrete outlet.

A portion of the fecal coliform contributions into the waterways may be attributed to failure of septic systems and illicit discharges of raw sewage i.e. straight pipes. Most of the residences of the Salacoa Creek sub-watershed are on septic tanks instead of sewer lines (Georgia DCA, <http://www.georgiaplanning.com/planners/SDmaps>). Septic tank failures usually are either self-reported or brought to the attention of environmental health staff by concerned neighbors, so individual failures aren't typically a chronic problem. But they remain a persistent problem.

There has been continued urban development in Gordon County, as there has been along the I-75 corridor. Some of these new households fall outside of the sewer service areas. These new installments are not really viewed as potential sources as almost all new installations are done correctly due to the current rigorous oversight of the Department of Public Health's Environmental Health Specialists, as is the inspection of repairs. The older septic tanks are more likely candidates to fail due to age, increased probability of irregular maintenance such as pump-outs, and their installation under a less stringent regulatory system. Those installed pre-1984 prior to which professional contracting was not mandated for septic contractors. Also, pre-1997 the compliance and enforcement mechanisms dealing with violating homeowners and installers were weak. In 1997, Act 280/Senate Bill 165 increased the oversight of this area with strengthened enforcement and inspection powers. The Department of Public Health phased in the implementation of these measures over time in order to correctly train and retrain all involved in the industry and regulatory agency.

But failing septic tanks' potential contribution to contamination of surface water is difficult to gauge, as it depends on the type and extent of failure, the dynamics of the geology and the groundwater table at the particular site, and there is also a remote but still significant possibility that there is a failure underground without any tell-tell signs like bubbling up sewage – what's called a sub-surface failure. Between 2004 and 2009 (partial year), there were 2,047 installations of septic tanks and 978 repairs in Gordon County, and 2,692 installations and 1,323 repairs in Bartow County (Northwest Georgia EH). These numbers give a sense of how many new systems are in Gordon and Bartow Counties. But they don't tell the total number of septic tanks, and which ones are prone to failure in the Salacoa Creek area as this is contingent upon many variables such as lot size, size and type of septic tank, intensity of usage, and age along with other factors. Also, these numbers are countywide, not on a watershed basis.

Stormwater can transport bacteria into waterways, so municipalities and counties that meet defined population thresholds have their stormwater regulated under the National Pollutant Discharge Elimination System. Unlike other NPDES permits that establish end-of-pipe limits, stormwater NPDES permits establish controls “to the maximum extent practicable” (MEP). Currently, regulated stormwater discharges that may contain fecal coliform bacteria consist of those associated with industrial activities including construction sites disturbing one acre or greater, and large, medium, and small municipal separate storm sewer systems (MS4s) that serve populations of 50,000 or more. None of the municipalities within Gordon or Gordon County itself qualifies for these permits. Bartow County is a Phase II MS4 county but since Salacoa Creek does not pass through any Bartow municipalities and their stormwater discharges, likely only the Public Education and the Public Participation provisions of the permit pertain to the part of the Salacoa in Bartow County.

Leachate from landfills may contain fecal coliform bacteria that may at some point discharge into surface waters. Sanitary (or municipal) landfills are the most likely to serve as a source of fecal coliform bacteria. These types of landfills receive household wastes, animal manure, offal, hatchery and poultry processing plant wastes, dead animals, and other types of wastes. Older sanitary landfills were not lined and most have been closed. Those that remain active and have not been lined operate as construction/demolition landfills. Currently active sanitary landfills are lined and have leachate collection systems. All landfills, excluding inert landfills, are now required to install environmental monitoring systems for groundwater and methane sampling. Many of the older, inactive landfills were never permitted. There are five landfills in the HUC 10 watershed.

In rural areas of North Georgia, it is also not uncommon for refuse to be illegally dumped, occasionally directly into the waterways. This illicit activity also includes the dumping of game animal carcasses directly into waterways. This can be a potential human-caused source of pollution.

Management Activities in HUC 10 Watershed

- Erosion & Sedimentation Controls: Gordon County issues its own permits through its building inspector who also is in charge of compliance. Bartow County is the same, with it being a local issuing authority for erosion & sedimentation permitting of land-disturbing activities which are required to submit an NOI under the NPDES General Permit for Construction Activity.
- The Northwest Georgia Comprehensive Water Management Plan was prepared in October 2004 by the consulting firms MACTEC Engineering and Consulting, Inc. and Brown and Caldwell for the Northwest Georgia Regional Water Resources Partnership (NWGRWRP) and the U.S Army Corps of Engineers (COE). A Preliminary Water Supply Study was issued in January, 2008 by the same consulting firms for the NWGRWRP in order to identify existing water supplies, the projected long-term water supply needs for Northwest Georgia, and the potential new water supply sources to meet those needs. There is an ongoing study – Northwest Georgia Water Quality Improvement Study and Implementation Plan- conducted by these same firms for the NWGRWRP and the U.S. Army COE. This Study and Implementation Plan has four sites in the city of Calhoun, one of which is on Jacks Creek which is a tributary of Pine Log Creek, itself a tributary of Salacoa creek and the starting point of this segment of Salacoa Creek.
- Watershed Association: The New Echota River Alliance (NERA) is a charter organization of the Coosa River Basin Initiative which focuses its efforts on the major rivers and tributaries within Gordon County. The Coosa River Basin Initiative also conducts the same activities in Bartow County.

Information on Salacoa Creek Segment (HUC 12#: 031501020603)

Salacoa Creek has its source in the high elevations in Pickens County. It flows southwest into Cherokee County then due west into Bartow County. Once in Bartow County, it flows northwest up into Gordon County and within the City of Fairmount, ultimately draining into the Coosawattee River about 5 miles northwest of the City of Ranger. The Coosawattee and Conasauga Rivers converge ultimately to form the Oostanaula River. Salacoa

Creek far upstream from this segment, where US Hwy. 411 crosses it, is listed as a secondary trout stream (Coosa River Plan, 1998). This means that Georgia State law mandates a 50 foot riparian buffer against most residential and commercial development, except with a variance for up to 25 feet if approved (Georgia Code).

This segment starts where Pine Log Creek flows into the Salacoa. It then runs to the east of the community of Redbud before it emptying into the Coosawattee.

The sub-watershed area drains an area of approximately 15,4057 acres – most of that forest and agricultural land. The next highest land use is listed as urban grasses such as park lands and lawns. These statistics are mostly backed up by the limited visual survey/land use conducted of the area – limited because of the few public access points to the creek segment. The specific land use is broken down below

| Land Use for the Salacoa Creek Sub-Watershed (HUC 12# 031501020603) | | |
|--|----------------------|--------------|
| | % of Land Use | Acres |
| Open Water | .3 | 495.5 |
| Low Intensity Residential | .7 | 1,071.5 |
| High Intensity Residential | .2 | 305.6 |
| High Intensity Commercial, Industry, Transportation | .04 | 65.6 |
| Bare Rock, Sand, Clay | .1 | 188.4 |
| Quarries, Strip Mines, Gravel Pits | .1 | 158.6 |
| Forest | 67.2 | 103,577.4 |
| Row Crops | 22.4 | 34,546.3 |
| Pasture, Hay | 2.4 | 3,721.9 |
| Other Grasses (Urban, recreational e.g. parks, lawns) | 6.1 | 9,371.6 |
| Woody Wetlands | .4 | 547.5 |
| Emergent Herbaceous Wetlands | .01 | 7.8 |
| Totals | 100% | 15,4057.5 |

Source: GAEPD publication
Total Maximum Daily Load Evaluation for Twenty-Nine Stream Segments in the Coosa River Basin for Fecal Coliform. (2009)

This land use data was largely confirmed by the visual field survey and by looking at satellite imagery of the area.

Georgia Forestry Commission BMPs

- All forestry operations are required to comply with the GFC’s handbook, “Georgia’s Best Management Practices for Forestry” and the BMPs contained within. The BMP Assurance Examination can be given at random. However, the majority of these exams are given because of complaints sent to the GFC. When complaints are received the forester usually makes 4 or 5 visits to the property until it is retired properly. Typically, there is a large improvement in scores from the initial exam to the final exam. There were no BMP assurance exams for forestry operations in Gordon County, as there were no complaints to generate such a required inspection and examination. The GFC District 1 (Rome) is responsible for forestry operations in Gordon County.

Major Agricultural Conservation Program in Sub-Watershed

- Environmental Quality Incentives Program (EQIP): An NRCS program, it is used to help farmers offset the costs of implementing agricultural BMPs targeted to improve water quality. These contracts can last up to 5 years and can include technical expertise along with financial assistance. Along the Salacoa Creek, the BMPs consist of a Storage Facility for poultry litter.
- Continuous Conservation Reserve Program (CCRP): An NRCS program, it is used to help farmers offset the cost of safeguarding environmentally sensitive land, particularly protecting watersheds and wildlife habitats with riparian buffers and other Best Management Practices (BMPs). The farmer is financially with up to a 90% funding using a patch work of funding that exceeds the normal maximum 50% cost share. So usually, the agricultural producer has to only front 10% out-of-pocket expense. Plus, the contracted party gets a rental payment based on a number of factors including soil quality, as this is a type of conservation easement. The contract includes technical expertise along with financial assistance. The contract lasts for ten to fifteen years. During that time, the farmer is responsible for the maintenance of the conservation measures and the NRCS periodically inspects them to ensure their effectiveness. Typically in the Northwest Georgia area, these measures are mostly cattle exclusion from creeks and riparian buffer establishment using fences, as was implemented along Salacoa Creek.

III. CAUSES AND SOURCES OF SEGMENT IMPAIRMENT(S) LISTED IN TMDLs

Table 2. provides information contained in the current TMDL for the impaired water body. By definition, “wasteload allocations” (WLA) for municipal and industrial wastewater discharges and (WLA_{sw}) for stormwater outfalls are established in permitted areas, while “load allocations” (LA) are established for non-point sources of pollution. Wasteload allocations are assigned by Georgia EPD during the NPDES permitting process and are not part of the TMDL implementation planning process, which deals solely with non-point sources of pollutants.

Table 2. WASTE LOAD AND LOAD ALLOCATIONS AND TMDLS FOR THE IMPAIRED SEGMENT

| STREAM SEGMENT NAME | LOCATION | CRITERIA VIOLATED | WLA | WLA _{sw} | LA | TMDL |
|---------------------|--|-------------------|-----|-------------------|----------|----------|
| Salacoa Creek | Pine Log Creek to Coosawattee River (Gordon) | FC | | | 2.77E+13 | 3.08E+13 |

Table 3. contains information presented in the TMDL study that this implementation plan addresses.

Table 3. POTENTIAL NON-POINT SOURCES OF IMPAIRMENT INDICATED IN THE TMDLs

| CRITERIA VIOLATED : FC | WQ STANDARD | SOURCES OF IMPAIRMENT | NEEDED % REDUCTION (FROM THE TMDL) |
|------------------------|--|------------------------|------------------------------------|
| Fecal Coliform | 1,000 per 100 ml (geometric mean Nov-April) 200 per 100ml (geometric mean May-Oct) | Urban Runoff | 62% |
| | | Failing Septic Systems | |
| | | Wildlife | |
| | | Agricultural Runoff | |
| | | Silviculture Runoff | |

IV. IDENTIFICATION AND RANKING OF POTENTIAL NON-POINT SOURCES OF IMPAIRMENT

This section identifies and describes **in order of importance**, as determined through this TMDL implementation planning process, the extent and relative contributions from historic as well as current potential non-point sources of pollutants to the water quality impairment.

The geographic extent and probable contribution of each potential source were determined using input from stakeholders, land use data, a field survey, satellite photography from Google maps, and the precedents of the TMDL study documents and a previous TMDL for sedimentation on Salacoa Creek.

Due to almost entirely non-urban nature of the area, urban runoff from stormwater is highly unlikely to contribute to the pollution on this segment. But there is developed land, and a small portion of that is low-intensity residential – all of which are on septic systems. Even though the area is sparsely populated, a small amount of failing septic systems could play a large part in contributing to the problem. But this possible contribution is difficult to ascertain, as there is no definitive data on failing septic systems. The status of septic systems is hard to determine because they are on private property, underground, and because they typically don't exhibit signs of the potential to fail until they fail unless they are regularly maintained. When they do fail they are usually promptly recognized and fixed by trained installers under the oversight of the Environmental Health Department. There is the remote but significant possibility that failing septic systems are not apparent to the human eye because they lack the common signs of bubbling up sewage or unusually green grass – a sub-surface failure. This typically is more of a groundwater contamination issue rather than a surface water one, but as the two hydrological systems are sometimes linked, so too can they share potential sources of contamination. These possible scenarios, plus the fact that the majority of soils in the area are considered poor quality for septic systems, make failing septic systems a potential contributor of the contamination in the watershed.

Most of the developed land though is improved for agricultural use. Agriculture makes up the predominant developed land use at about 25%, so it makes up a medium sized geographic extent. Due to the larger extent of row crops versus livestock in the watershed, there might not be as much

direct fecal runoff but the possibility of runoff from row crop land with insufficient buffers and/or other erosion and sedimentation controls remains. Sufficient buffers were seen at one creek crossing. Due to the large amount of fecal coliform in bovine feces, cattle also are a potential source. At least seven large chicken houses are in the immediate area. This is not to definitively say these poultry & livestock operations are causing the problem, but to note their presence and their potential to contribute to elevated fecal coliform levels.

Over 90% of the land use in the sub-watershed is either forested or agriculture, wildlife is certain to be present and contribute somewhat to the impairment as both land uses serve as either natural or adapted habitats for such fauna. There is also a similar issue as with the septic tanks of a lack of definitive data to use to ascertain the potential contribution of wildlife to the background levels of fecal coliform. Deer are unlikely to contribute much to the problem since they do not spend as much time in the water as other creatures such as waterfowl and other water-friendly animals like raccoons.

Runoff from silvicultural (forestry) operations can also contribute. One clear-cut forest was witnessed near the creek segment. All logging operations have to abide by the Georgia Forestry Commission’s BMP handbook.

Table 4. offers a simple format to rank **in order of importance**, as determined through this TMDL implementation planning process, the extent and relative contribution to the water quality impairment from all the potential non-point sources of pollution identified in Section IV. A “rating scale” of 0.5 to 5 has been developed to rank the sources. The rating chart provides guidance for rating the estimated extent (Rating A) and portion of the contribution (Rating B) from each potential non-point source and cause:

| Rating A: Rating Chart to Estimate Geographic Extent of the Source or Cause in the Contributing Watershed | Rating B: Rating Chart to Estimate Portion of Contribution from the Source to the Pollutant Load Causing the Impairment | Rating |
|--|--|---------------|
| None or negligible (approximately 0-5%) | None or negligible (approximately 0-5%) | 0.5 |
| Scattered or low (approximately 5-20%) | Scattered or low (approximately 5-20%) | 1 |
| Medium (approximately 20-50%) | Medium (approximately 20-50%) | 3 |
| Widespread or high (approximately 50% or more) | Widespread or high (approximately 50% or more) | 5 |
| Unknown | Unknown | UNK |

Table 4. EVALUATION OF POTENTIAL SOURCES OF STREAM SEGMENT IMPAIRMENT

APPLICABLE TO CRITERION 1: FECAL COLIFORM

| IMPAIRMENT SOURCES | ESTIMATED EXTENT OF CONTRIBUTION | | ESTIMATED PORTION OF CONTRIBUTION | | IMPACT RATING (A X B) |
|------------------------|----------------------------------|------------|-----------------------------------|------------|-----------------------|
| | Comments | Rating (A) | Comments | Rating (B) | |
| Urban Runoff | | .5 | | .5 | .25 |
| Failing Septic Systems | | 1 | | 3 | 3 |
| Wildlife | | 5 | | 1 | 5 |
| Agricultural Runoff | | 3 | | 3 | 9 |
| Silviculture Runoff | | .5 | | .5 | .25 |

V. CURRENT AND ACTIVE MANAGEMENT MEASURES AND ACTIVITIES

Table 5A. identifies significant current and active Best Management Practices (BMPs) that have been installed to address potential non-point sources of impairment listed in Section IV, Table 4., and provides ratings of each management measure’s estimated Load Reduction Potential (LRP) when applied to a specifically identified non-point source. The rating chart provides guidance for rating the BMP Load Reduction Potential applied to a specifically identified non-point source:

Current Management Measures- Gordon County

- Issues its own Erosion & Sedimentation Controls permits through its building inspector who is also in charge of compliance. The city of Fairmount, further upstream, controls the issuing of and compliance with its own permits.
- There are no riparian buffers zones beyond the Georgia standard of 25 feet.
- Has groundwater recharge area, wetlands, and river corridor protection ordinances in addition to a water supply watershed protection plan in its Unified Land Development Code (Chapter 3: Protection of Natural Resources and Features; also respectively found in Article VI.; Article VII; Article IV; and Article V – all enacted 9-15-1998 and part of Chapter 14). These are in voluntary accordance with the Part V. Environmental Planning Criteria jointly issued by the Georgia EPD and the Department of Community Affairs.
- There is no formal Greenspace designation, but the (ULDC) does contain a provision for a “Conservation Subdivision – (CS) zoning district” (Tom Burgess). So far, no one has applied for a zoning change to this designation, and no money has been allocated to purchase greenspace set-asides.

Management Measures – Bartow County

- A Local Issuing Authorities for erosion & sedimentation permitting of land-disturbing activities which are required to submit an NOI under the NPDES General Permit for Construction Activity.
- NPDES-permitted Small Municipal Separate Storm Sewer System (MS4) and is subject to the Phase II MS4 Stormwater Rules. These extended Phase II permitting rules include six parameters that deal with water quality including 1. Public Education and Outreach; 2.

Public Participation and Involvement; 3. Illicit Discharge Detection and Elimination; 4. Construction Site Runoff Control; 5. Post-Construction Runoff Control; 6. Pollution Prevention and Good Housekeeping.

- Industrial Stormwater Discharge NPDES Permit is required for all manufacturers that discharge stormwater. Construct Stormwater Discharge NPDES Permit is required for land disturbing activities over one acre. This permit requires implementation of erosion, sedimentation and pollution control plan plus monitoring of discharge for compliance with Georgia's in-stream water quality standards.

Planning and Management Activities- City of Fairmount

- A member of the NWGRWRP and participant in the ongoing study that organization has commissioned – the Northwest Georgia Water Quality Improvement Study and Implementation Plan. This plan is being conducted by these Brown & Caldwell and MacTec for the NWGRWRP and the U.S. Army COE. This Study and Implementation Plan has four sites in the city of Calhoun, one of which is on Jacks Creek which is a tributary of Pine Log Creek, itself a tributary of Salacoa creek and the starting point of this segment of Salacoa Creek.

Planning and Management Activities- Bartow County

- Member of the Metropolitan North Georgia Water Planning District, which was created by the Georgia General Assembly to establish policy, create plans and promote intergovernmental coordination of all water issues in the area from a regional perspective. The county is included in the Metropolitan Water Planning District's Watershed Management Plan, which includes six protection strategy areas: Point Source Management; Stormwater Management; Total Maximum Daily Loads (TMDLs); Watershed Improvement; Intergovernmental Coordination; and Long-term Monitoring.
- Adopted all six of the model ordinances mandates by the MNGWPD Watershed Management Plan: Ordinance for Post-Development Stormwater Management for New Development and Redevelopment; Floodplain Management/Flood Damage Prevention Ordinance (in review); Conservation Subdivision/Open Space Development Ordinance; Illicit Discharge and Illegal Connection Ordinance; Litter Control Ordinance; and a Stream Buffer Ordinance.

Watershed Group

- The New Echota River Alliance is an environmental advocacy and outreach nonprofit organization that focuses on the part of the Coosa River Basin that falls within Gordon County. It is a charter organization of the Coosa River Basin Initiative with whom it forms the Upper Coosa Riverkeeper. It conducts river cleanups, environmental outreach, and coordinates water quality sampling.
- The Coosa River Basin Initiative also conducts the same activities in Bartow County.

Georgia Forestry Commission BMPs

- All forestry operations are required to comply with the GFC's handbook, "Georgia's Best Management Practices for Forestry" and the BMPs contained within. The BMP Assurance Examination can be given at random to ensure that these measures are being implemented. However, the majority of these exams are given because of complaints sent to the GFC. When complaints are received the forester usually makes 4 or 5 visits to the property until it is retired properly. Typically, there is a large improvement in scores from the initial exam to the final exam. There were no BMP assurance exams for forestry operations in Gordon County, as there were no complaints to generate such a required inspection and examination. Bartow County had one such exam subsequent an initial examination. Gordon County and Bartow County fall within in the GFC District 1 (Rome).

Agricultural Conservation Projects

- (EQIP): An NRCS program, it is used to help farmers offset the costs of implementing agricultural BMPs targeted to improve water quality. These contracts can last up to 5 years and can include technical expertise along with financial assistance. Along the Salacoa Creek, the BMPs consist of a Storage Facility for poultry litter.
- Continuous Conservation Reserve Program (CCRP): An NRCS program, it is used to help farmers offset the cost of safeguarding environmentally sensitive land, particularly protecting watersheds and wildlife habitats with riparian buffers and other Best Management Practices (BMPs). The farmer is financially with up to a 90% funding using a patch work of funding that exceeds the normal maximum 50% cost share. So usually, the agricultural producer has to only front 10% out-of-pocket expense. Plus, the contracted party gets a rental payment based on a number of factors including soil quality, as this is a type of conservation easement. The contract includes technical expertise along with financial assistance. The contract lasts for ten to fifteen years. During that time, the farmer is responsible for the maintenance of the conservation measures and the NRCS periodically inspects them to ensure their effectiveness. Typically in the Northwest Georgia area, these measures are mostly cattle exclusion from creeks and riparian buffer establishment using fences, as was implemented along Salacoa Creek. As this segment of the Salacoa is just a portion of the entire Salacoa Creek segment in Gordon County, it is unknown where on the Creek these projects were implemented: on the segment, downstream, or upstream. According to Georgia Statistics, there is 112.6 acres in conservation reserve in Gordon County as of 2009.

Developments of Regional Impact

- The Northwest Georgia Regional Commission advises that compliance on the site to protect water quality is a necessity. Best Management Practices (BMPs) on this site should exceed the minimum requirements and attempt to consider all possible problems in order to adequately protect water quality in streams and drainage-ways/State waters.
- The Northwest Georgia Regional Commission recommends that the project design professionals meet with the Georgia Soil and Water Conservation Commission to review plans and assist in providing adequate erosion and sedimentation control measures, and stormwater runoff quantity and quality control measures (Georgia Soil and Water Conservation Commission, Region 1 Office, 700 East 2nd Avenue, Suite J, Rome, Georgia 30161-3359, Telephone: 706-295-6131).

| BMP Load Reduction Potential Rating Chart (Percent Removal of Pollutant by the BMP) | Rating |
|---|---------------|
| None or negligible (approximately 0-5%) | .5 |
| Low to medium (approximately 5-25%) | 1 |
| Medium to High (approximately 25-75%) | 3 |
| High (approximately 75% or more) | 5 |
| Unknown | UNK |

Table 5A. CURRENT AND ACTIVE MANAGEMENT MEASURES AND ACTIVITIES

GENERAL AND SPECIFIC MEASURES APPLICABLE TO CRITERION 1: FECAL COLIFORM

| BMPs (1) | RESPONSIBILITY (2) | DESCRIPTION OF MEASURES (3) | FUNDING & RESOURCES (4) | IMPAIRMENT SOURCES (5) | DATE (6) | BMP LRP RATING (7) |
|---|---|--|--|--|---------------------|--|
| Chicken Litter/ Manure Storage Facility (NRCS #313) | USDA NRCS/ Contract-bound Farmer | A storage facility constructed to temporarily store waste, wastewater and contaminated runoff as part of an agricultural waste management system. Reduces fecal coliform by up to 96% when waste is held for 2 weeks | | Agricultural Runoff: Chicken Litter | | 5 |
| Cattle Exclusion from creek w/ Fences (NRCS # 472) | USDA FSA & NRCS | Barriers installed to limit animal, human and wildlife entry into specified areas and water sources; they can limit the amount of fecal matter from these sources that directly get into the water. | CCRP – USDA Farm Bill | Agricultural Runoff: Wildlife and livestock feces | | Neutral ² up to 5 ¹ |
| Riparian Forest Buffers (NRCS # 391; CRP # CP-22) | USDA – FSA & NRCS; Contracted Agricultural Producer | Part of the same projects that use the above stream fencing, this is the establishment of primarily trees and/or shrubs adjacent to water bodies to protect water quality, provide wildlife habitats and to stabilize stream banks and channels. These buffers are at least 35 feet wide from the top of the bank. | CCRP – USDA Farm Bill | Agricultural Runoff: Wildlife and livestock feces | | 1-5 ² |

Sources: 1: Best Management Practices for Georgia Agriculture. The Georgia Soil and Water Conservation Commission;
2: NRCS National Conservation Practices Standards (NHCP): Conservation Practice Information Sheets.

Work Sheet for Table 5B. is designed to evaluate the capacity of existing or installed BMPs described in Table 5A. that have been implemented to reduce pollutant loadings from significant non-point sources identified in Table 4. Apply this work sheet as a local guide to evaluate BMPs in achieving water quality goals, establishing priorities for grant or loan programs, and identifying priorities for local watershed assessments and management plans.

Work Sheet for Table 5B. EVALUATION OF CURRENT AND ACTIVE MANAGEMENT MEASURES AND ACTIVITIES

APPLICABLE TO CRITERION 1: FECAL COLIFORM

| IMPAIRMENT SOURCES (1) (From Table 4) | IMPACT RATING (2) (From Table 4) | APPLICABLE BMPs (3) (From Table 5A) | EVALUATION SUMMARY (4) | ADDITIONAL INFORMATION / ACTIONS NEEDED (5) |
|---|--|---|-------------------------------|---|
| Urban Runoff | .25 | N/A | N/A | N/A |
| Failing Septic Systems | 3 | N/A | N/A | N/A |
| Wildlife | 5 | N/A | N/A | N/A |
| Agricultural Runoff | 9 | Poultry Litter Storage Facility | N/A | If the BMP implementation is judged by qualified experts & stakeholders to be inadequate, BMP enhancement based off of targeted monitoring and/or assessment should be considered |
| | | Cattle Exclusion from creek w/ Fences | | |
| | | Riparian Forest Buffers | | |
| Silvicultural Runoff | .25 | GFC BMPS | N/A | |

Table 5B. identifies new management measures that could improve or supplement current Load Reduction Potential (LRP) ratings or enhancements to existing BMPs that have been judged inadequate for achieving the load reductions. Evaluations in the Work Sheet for Table 5B. have determined that additional or enhanced management measures are necessary to more effectively reduce pollutant loads from the most likely non-point sources of impairment. The rating chart provides guidance for rating the Load Reduction Potential (LRP) of a BMP applied to a specifically identified non-point source:

| New or Enhanced BMP Load Reduction Potential Rating Chart (Percent Removal of Pollutant by the BMP) | Rating |
|--|---------------|
| None or negligible (approximately 0-5%) | .5 |
| Low to medium (approximately 5-25%) | 1 |
| Medium to High (approximately 25-75%) | 3 |
| High (approximately 75% or more) | 5 |
| Unknown | UNK |

Table 5B. RECOMMENDED NEW MANAGEMENT MEASURES AND ACTIVITIES

APPLICABLE TO CRITERION 1: FECAL COLIFORM

| NEW BMPs (1) | RESPONSIBILITY (2) | DESCRIPTION (Identify whether new or enhanced) (3) | FUNDING & RESOURCES (4) | IMPAIRMENT SOURCES (5) | TARGET DATE (6) | NEW BMP LRP RATING (7) |
|--|--|---|--|---------------------------------------|--------------------------------|---|
| Stormwater BMPs | Gordon and Bartow Counties; City of Fairmount | New | Various | Urban Runoff | TBD | UNK |
| Septic Tank BMPs: Educational and Structural Programs | County Environmental Health Office and concerned citizens. | Enhanced from existing Environmental Health outreach with their pamphlets. Possibly new with 319 (h) grant program. | Various | Failed Septic Tanks | TBD | UNK |
| Agricultural BMPs | Farmers; USDA; local environmental groups | New and Enhanced | Various | Agricultural Runoff | TBD | UNK |

VI. MONITORING PLAN

This section describes parameters to be monitored, status, whether monitoring is required for watershed assessments or stormwater permits, and the intended purpose. **Submittal of a Sampling Quality Assurance Plan (SQAP) for Georgia EPD approval is mandatory if monitoring data is to be qualified to support listing decisions.**

Water quality data used to evaluate the criteria violated are less than five years old? Yes [X] No [].

VII. PLANNED OUTREACH FOR IMPLEMENTATION

Table 7. lists and describes local outreach activities that will be conducted to support this implementation plan or to help improve water quality in the segment watershed.

Table 7. PLANNED OUTREACH FOR IMPLEMENTATION

APPLICABLE TO CRITERION 1: Fecal Coliform.

| RESPONSIBILITY (1) | DESCRIPTION (2) | AUDIENCE (3) | START OR COMPLETION DATE (4) |
|---|---|--|---|
| New Echota River Alliance | General outreach concerning water issues in Gordon County | General Public | Ongoing. |
| Coosa River Basin Initiative | Train educators and their students in QA/QC Adopt-a-Stream monitoring protocols; conduct environmental education presentations in schools. | Gordon County and City of Calhoun School Teachers and Pupils. | UNK |
| UGA Cooperative Extension Service – Gordon County Agent Beth Watson | Participate with local school children in clean up of local rivers and parks during Rivers Alive, a state wide event held annually | Gordon County and City School Children | Ongoing |
| UGA Cooperative Extension Service – Gordon County Agent Beth Watson | Instruct kids about water quality issues with UGA supplied environmental education module, “Poisoned Pump.” | 5 th Graders in Gordon County and City Schools | Ongoing |
| UGA Cooperative Extension Service – Gordon County Agent Beth Watson | Instruct kids about water quality and conservation with UGA supplied environmental education module, “Drought and Georgia Curriculum.” | 6 th Graders in Gordon County and City Schools | Ongoing |
| Gordon and Bartow County Environmental Health Department | Provide packets of information containing do’s and don’ts for septic system maintenance as well as a 9 minute DVD dealing with septic system maintenance. | Gordon and Bartow County homeowners on septic – primarily reaches new home owners and homeowners w/ recently failed systems. | Ongoing |

VIII. MILESTONES AND BENCHMARKS OF PROGRESS FOR BEST MANAGEMENT PRACTICES (BMPs) AND OUTREACH

Table 8. shows what milestones and benchmarks have been developed to validate the progress of local best management measures identified in Tables 5A., 5B., and other sections of this plan in reducing pollutant loads from identified non-point sources of impairment.

Table 8. MILESTONES OF PROGRESS

| BMP (1) | MILESTONE / BENCHMARK (2) | RESPONSIBLE ORGANIZATION (3) | METHOD / TIMELINE (4) | BMP STATUS (5) | |
|---|------------------------------|--|--------------------------|------------------------|-----------------------|
| | | | | INSTALLED TABLE 5A. | PROPOSED TABLE 5B. |
| Poultry Litter Storage Facility | | | | X | |
| Cattle Exclusion from creek w/ Fences | | | | X | |
| Riparian Forest Buffers | | | | X | |
| General Outreach to Public | | NERA | | X | |
| Adopt-a-Stream Training | | CRBI/NERA | | | X |
| Rivers Alive Clean-up | | UGA Cooperative Extension Service/ 4-H | | X | |
| 5 th and 6 th Grade Environmental Education | | UGA Cooperative Extension Service/ 4-H | | X | |
| Septic Tank Maintenance Education | | Environmental Health Departments of Gordon and Bartow Counties | | X | |

IX. STAKEHOLDERS

This section describes outreach activities engaging local stakeholders in the TMDL implementation plan preparation process, including the number of attendees, meeting dates, and major findings and recommendations.

On April 1, 2009 an initial TMDL Planning Meeting held at the Northwest Georgia Regional Commission .The mailing list for the first meeting went to out to local government officials in cities and counties that had impaired streams in their watershed. For the initial meeting 62 people were emailed and 24 attended. No representatives from the Salacoa Creek watershed, either from Gordon County or the City of Fairmount attended. Chris Faulkner, Environmental Outreach Coordinator from the Georgia Environmental Protection Department gave a PowerPoint presentation that

explained the TMDL process and how they are developed, as well as how the list of the 303 (d)/305 (b) impaired streams is developed. He then took multiple questions. At the end of the meeting it was determined that the people in attendance would compile a list of people that they would like to act as stakeholders for the impaired streams in their particular watershed. This was ultimately unproductive, as it generated very few responses.

On May 28th, 2009 a Gordon County a public stakeholder meeting was held in Calhoun. A presentation was done by employees of the NWGRC on what fecal coliform, a TMDL, and a TMDL Implementation Plan are. Also explained was what is asked of the stakeholders of the waterways and the potential impacts of the TMDL plan upon different stakeholders and the potential sources of fecal coliform pollution.

Doug Cabe of the Limestone Valley RC & D gave a presentation on a 319(h) grant program his organization along with the Conasauga River Alliance that addressed fixing failing septic systems in the Conasauga River Basin.

Machelle Simmons of NRCS described the many programs that the USDA offers to implement agricultural BMPs dealing with water pollution and habitat conservation.

The floor was opened up to questions and there was a discussion that involved almost every stakeholder present. Questions were asked concerning using more monitoring to narrow down the source of the pollutant; chicken litter used as fertilizer and its relationship to the fecal coliform contamination; the presence or decrease of agriculture in Gordon and the possible decrease of it as a source of pollution; peculiar smells coming from what Joe Cook of CRBI thought was the Calhoun wastewater LAS (Calhoun says they aren't the source of the smell); how old is an old septic tank (20+ yrs.); and how long this TMDL process has been going on and how long will it continue. Salacoa Creek did not come up specifically in discussion.

The second public TMDL meeting for Bartow and Gordon Counties was held in Adairsville on August 6, 2009. This meeting was open house format because all of the attendees had either been at a previous TMDL meeting or had a good understanding of the TMDL program. The attendees were asked about BMPs in the area and if there were any new BMPs or outreach activities that they would like to see in the watersheds. One farmer stated the he along with many other farmers would be in favor of BMPs; however many do not know about the USDA's assistance with BMPs. Potential sources of non-point pollution were discussed. It was also noted that the real estate bust had a silver lining of reducing the runoff into waterways. Then a discussion began regarding that fecal coliform counts increase significantly during storm events, which is backed by recent sampling done on a Bartow County creek. The increased funds for year 2010 319 grant projects were discussed and it was mentioned that this funding could be used to purchase monitoring equipment and to start an Adopt-a-Stream group in Bartow or Gordon County, or to address leaking septic tanks with either records inventory or an aerial infrared photography survey. Also, the possibility of teaming up with the New Echota Rivers Alliance in Gordon County or the Coosa River Basin Initiative in Bartow County to do water monitoring through their Adopt-a-Stream programs. This was well received by many present. Cattle intrusion into waterways was described as widespread, especially on the Oostanaula River. Mohawk Industries described their main current focus as controlling stormwater, along with conducting environmental community service. The possibility of tributaries of these impaired streams contributing to the bacterial problem was addressed by the EPD representative. Salacoa Creek did not come up directly in the discussion.

Following is a list of advisory committee or watershed group members who participated in this TMDL implementation planning process.

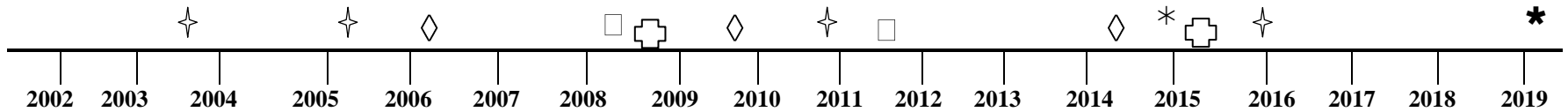
Table 9. STAKEHOLDER ADVISORY GROUP MEMBERS

| NAME/ORG | ADDRESS | CITY | STATE | ZIP | PHONE | E-MAIL |
|--|----------------------------|-------------|-------|-------|--------------------|------------------------------|
| Larry Pratt/ City of Adairsville | 116 Public Square | Adairsville | GA | 30103 | (770) 773-2605 | lvp2853@bellsouth.net |
| Wade Wilson/City of Adairsville, Wilson Engineering | 105 S. Main St. | Adairsville | GA | 30103 | (770) 773-1717 | wade_wilson@comcast.net |
| Christy Blair/GCHD, Environmental Health-Gordon County | 318 N. River St. | Calhoun | GA | 30701 | (706) 624-1440 | chblair@dhr.state.ga.us |
| Mary Griffin | 3086 Martha Berry Hwy. | Rome | GA | 30165 | (770) 720-3525 | mgriffin@gfc.state.ga.us |
| Machelle Simmons/ USDA NRCS | 717 South Wall St. Suite 1 | Calhoun | GA | 30701 | (706) 629-2582 x 3 | machelle.simmons@ga.usda.gov |
| Doug Cabe/ Limestone Valley RC & D | 125 Redbud Rd. Suite 7 | Calhoun | GA | 30701 | (706) 625-7044 | doug.cabe@ga.usda.gov |
| Ted Collins/ Limestone Valley RC & D | 8363 Fairmount Hwy. | Fairmount | GA | 30319 | (706) 629-8222 | nogaapp@bellsouth.net |
| Aimee Abernathy/ City of Fairmount | 2265 US Hwy. 411 | Fairmount | GA | 30319 | (706) 337-5306 | cityoffairmount@comcast.net |
| Michael Fowler/Gordon County | 200 South Wall St. | Calhoun | GA | 30701 | (706) 629-0505 | mfowler@gordoncounty.org |
| Jerry Crawford/City of Calhoun | 700 West Line St. | Calhoun | GA | 30701 | (706) 602-6078 | jcrawford@calnet-ga.net |
| Erica Stewart/ Mohawk Industries | 405 Virgil Dr. | Dalton | GA | 30720 | (706) 428-8133 | erica_stewart@mohawkind.com |
| Randy Waskul/Mohawk | | | | | (706) 428-8147 | randy_waskul@mohawkind.com |
| Chuck Patterson/ Mannington Commercial Carpets | 1844 US Hwy. 41 SE | Calhoun | GA | 30701 | (706) 602-6381 | chuckp@mannington.com |
| Robert Darnell | 813 Plainville Rd. | Adairsville | GA | 30103 | (770) 773-6181 | |
| Sam Payne | P.O. Box 246 | Calhoun | GA | 30703 | (678) 986-6366 | paynefrm@bellsouth.net |

| | | | | | | |
|----------------------------------|----------------------|---------|----|-------|------------------------------|------------------------|
| Millard Payne | | | | | 678) 986-6366/(770) 608-9909 | paynefrm@bellsouth.net |
| Arthur Bowman | 121 Bowman Rd. | Calhoun | GA | 30701 | (706) 629-6118 | |
| Joe Powell | 225 Thelma Rd. SW | Calhoun | GA | 30701 | (706) 629-1840 | |
| Joe Cook/Upper Coosa Riverkeeper | 408 Broad Street | Rome | GA | 30161 | (706) 232-2724 | jcook@coosa.org |
| Dan McBee/NERA | 1721 Pine Chapel Rd. | Calhoun | GA | 30701 | (706) 263-4002 | McBee.Dan3@gmail.com |

PROJECTED IMPLEMENTATION TIMELINE

The projected date to attain and maintain water quality standards in this watershed is 10 years from receipt of this TMDL Implementation Plan by Georgia EPD.



- ✦ Projected EPD Basin Group Monitoring
- New TMDLs Completed
- ◇ Tier 2 TMDL Implementation Plan Received by EPD
- ⊕ Evaluation of Implementation Plan / Water Quality Improvement
- * Projected Implementation Timeline for Plans Prepared in 2006
- * Projected Implementation Timeline for Plans Prepared in 2009

| | | | |
|------------------------|---|--------|-----------------|
| Prepared By: | Ben Robinson and Jonathan Bridges | | |
| Agency: | Northwest Georgia Regional Commission | | |
| Address: | P.O. Box 1798 | | |
| City: | Rome | ST: GA | ZIP: 30162-1793 |
| E-mail: | brobinson@nwgrc.org; jbridges@nwgrc.org | | |
| Date Submitted to EPD: | 9-30-2009 | | Revision:01 |

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**Appendix A.
Outreach Attendance**

Following is a list of the 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/ORGANIZATION | ADDRESS | CITY | STATE | ZIP | PHONE | E-MAIL |
|--|----------------------------|-------------|-------|-------|----------------------------------|------------------------------|
| Larry Pratt/ City of Adairsville | 116 Public Square | Adairsville | GA | 30103 | (770) 773-2605 | lvp2853@bellsouth.net |
| Wade Wilson/City of Adairsville, Wilson Engineering | 105 S. Main St. | Adairsville | GA | 30103 | (770) 773-1717 | wade_wilson@comcast.net |
| Christy Blair/GCHD, Environmental Health-Gordon County | 318 N. River St. | Calhoun | GA | 30701 | (706) 624-1440 | chblair@dhr.state.ga.us |
| Mary Griffin | 3086 Martha Berry Hwy. | Rome | GA | 30165 | (770) 720-3525 | mgriffin@gfc.state.ga.us |
| Machelle Simmons/ USDA NRCS | 717 South Wall St. Suite 1 | Calhoun | GA | 30701 | (706) 629-2582 x 3 | machelle.simmons@ga.usda.gov |
| Doug Cabe/ Limestone Valley RC & D | 125 Redbud Rd. Suite 7 | Calhoun | GA | 30701 | (706) 625-7044 | doug.cabe@ga.usda.gov |
| Ted Collins/ Limestone Valley RC & D | 8363 Fairmount Hwy. | Fairmount | GA | 30319 | (706) 629-8222 | nogaapp@bellsouth.net |
| Aimee Abernathy/ City of Fairmount | 2265 US Hwy. 411 | Fairmount | GA | 30319 | (706) 337-5306 | cityoffairmount@comcast.net |
| Michael Fowler/Gordon County | 200 South Wall St. | Calhoun | GA | 30701 | (706) 629-0505 | mfowler@gordoncounty.org |
| Jerry Crawford/City of Calhoun | 700 West Line St. | Calhoun | GA | 30701 | (706) 602-6078 | jcrawford@calnet-ga.net |
| Erica Stewart/ Mohawk Industries | 405 Virgil Dr. | Dalton | GA | 30720 | (706) 428-8133 | erica_stewart@mohawkind.com |
| Randy Waskul/Mohawk | | | | | (706) 428-8147 | randy_waskul@mohawkind.com |
| Chuck Patterson/ Mannington Commercial Carpets | 1844 US Hwy. 41 SE | Calhoun | GA | 30701 | (706) 602-6381 | chuckp@mannington.com |
| Robert Darnell/Farmer | 813 Plainville Rd. | Adairsville | GA | 30103 | (770) 773-6181 | |
| Sam Payne/Farmer | P.O. Box 246 | Calhoun | GA | 30703 | (678) 986-6366 | paynefrm@bellsouth.net |
| Millard Payne/Payne Farm | | | | | (678) 986-6366 (770) 608-9909 | paynefrm@bellsouth.net |

| | | | | | | |
|----------------------------------|----------------------|---------|----|-------|----------------|----------------------|
| Arthur Bowman/Farmer | 121 Bowman Rd. | Calhoun | GA | 30701 | (706) 629-6118 | |
| Joe Powell/ Farmer | 225 Thelma Rd. SW | Calhoun | GA | 30701 | (706) 629-1840 | |
| Joe Cook/Upper Coosa Riverkeeper | 408 Broad Street | Rome | GA | 30161 | (706) 232-2724 | jcook@coosa.org |
| Dan McBee/NERA | 1721 Pine Chapel Rd. | Calhoun | GA | 30701 | (706) 263-4002 | McBee.Dan3@gmail.com |

APPENDIX B.

STATUS REPORTS / UPDATES TO THIS PLAN

If there are any revisions to an existing plan, this section will describe the date, section or table updated, and a summary of what was changed and why. A Status Report / Updates on Existing Local TMDL Implementation Plans and Watershed Remediation will be attached as a separate document.

N/A: This is a new TMDL Implementation Plan

APPENDIX C.

VISUAL FIELD SURVEYS, NOTES, PHOTOGRAPHS, AND MAPS.

On March 30, 2009 the NWGRC conducted a visual survey of the creek and land use verification of the immediate drainage area. This was following a period of heavy rain. Due to the limited amount of road crossings on the segment, only two creek survey spots were identified and utilized, but a general sense of the sub-watershed's land use was gained. The land use stated in the EPD TMDL study document was largely verified, though the row crop category might be inflated. We did see some row crops in the area along with some clear cut silviculture. At one creek survey site, good buffers were witnessed. The road crossing visited for the visual field survey were: Loves Bridge Road and GA Hwy. 156.



**Appendix D: Sources
(in order of appearance in plan)**

www.georgiastats.uga.edu

SWAP Information: In-house project done by Coosa Valley RDC and North Georgia RDC in 2001-2003.

EPD data (NPDES, landfill, supplied by Chris Faulkner, Environmental Outreach Coordinator, EPD.

Phone Conversation with Harry Pierce, Mayor, City of Fairmount. Phone Conversation with Fairmount WWTP Operator.

“Total Maximum Daily Load Evaluation for Twenty-Nine Stream Segments in the Coosa River Basin for Fecal Coliform.” January, 2009. The Georgia Environmental Protection Division of the Department of Natural Resources. Atlanta, GA.

“Watershed Management Population Projections and Employment Trends and Projections Fact Sheet.” October 2004. North Georgia RDC

Georgia DCA, <http://www.georgiaplanning.com/planners/SDmaps>

Northwest Georgia Environmental Health/Public Health Onsite Sewage System Installation and Repair Permit History: 2004-2009. Received from Tim Allee, District EH Director, via email on 8/25/2009.

Erosion and Sedimentation Control Issuing Authorities, by County. Updated January 23, 2009. Georgia EPD: Watershed Protection Branch. Frank Carubba.

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<http://www.northgeorgiawater.com/files/2006PlanImplementaionReview.pdf>

The Northwest Georgia Comprehensive Water Management Plan. October 2004. MACTEC Engineering and Consulting, Inc. and Brown and Caldwell for the Northwest Georgia Regional Water Resources Partnership (NWGRWRP) and the U.S Army Corps of Engineers (COE).

Preliminary Water Supply Study January, 2008. MACTEC Engineering and Consulting, Inc. and Brown and Caldwell for NWGRWRP.

Northwest Georgia Water Quality Improvement and Implementation Plan: Data Summary Report – Year 1 Events. April 24, 2009. MacTec Engineering and Consulting, Inc. and Brown and Caldwell. Prepared for the NWGRWRP and the U.S. Army COE. Project # 6110-08-0325.

<http://www.newechotarivers.org/>

The Georgia Code: “The Erosion and Sedimentation Act of 1975” Title 12. Conservation and natural resources Chapter 7. Control of soil erosion and sedimentation. O.C.G.A. § 12-7-1 (2007)

“Georgia’s Best Management Practices for Forestry.” January 1999, Georgia Forestry Commission.

Email Correspondence with Mabelle Simmons, USDA NRCS Agent, Bartow & Gordon Counties: 7/13-7/14/2009. Email Correspondence with Glenn Forester, USDA FSA Agent, Whitfield, Gordon, and Bartow Counties: 7/15 -7/16 & 7/21/2009.

Email Correspondence with Tom Burgess, Director of Gordon County Department of Building, Planning, and Development: 7/21/2009

In person discussion with CRBI Program Coordinator David Promis, 7/16/2007.

<http://maps.google.com>

Best Management Practices for Georgia Agriculture: conservation practices to protect surface water Quality. March 2007. The Georgia Soil and Water Conservation Commission.

NRCS National Conservation Practices Standards (NHCP): Conservation Practice Information Sheets. Accessed at <http://www.nrcs.usda.gov/technical/standards/nhcp.html>

Gordon County Comprehensive Plan 2007-2027: Community Assessment prepared for Gordon County, City of Fairmount, City of Plainville, City of Ranger, Town of Resaca. MACTEC Engineering and Consulting, Inc., Project 6311-05-0067. Accessed at www.georgiaplanning.com.

Phone Conversation with Beth Watson, CEA for Gordon County. 7/16/2009.

