

STATE OF GEORGIA
TIER 2 TMDL IMPLEMENTATION PLAN REVISION
 Coosa River, Beech Creek
 Coosa River Basin
 April 28, 2006

City of Rome-Floyd 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.

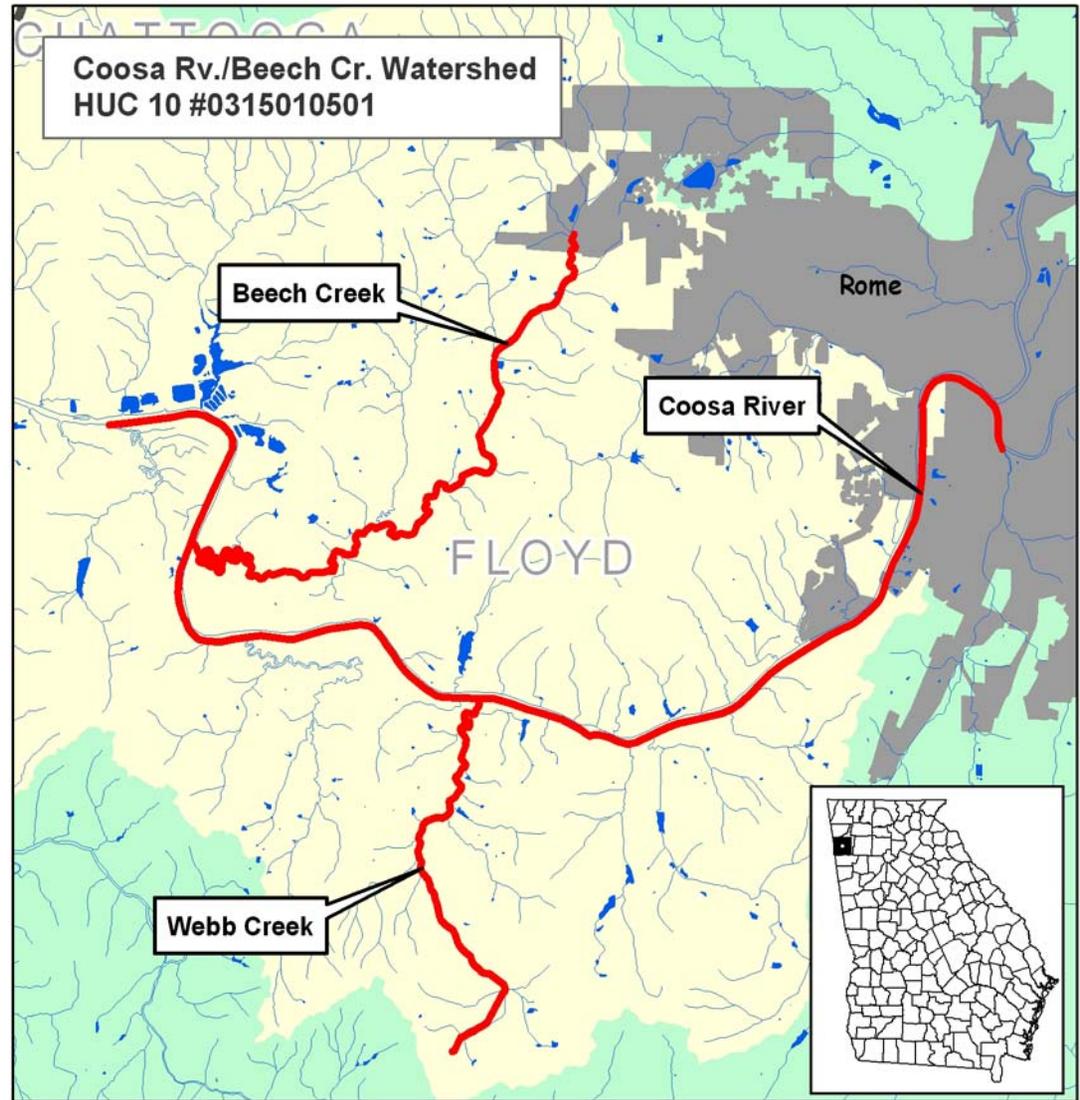


Table 1. IMPAIRMENTS

| IMPAIRED STREAM SEGMENT | IMPAIRED SEGMENT LOCATION | IMPAIRMENT | TMDL ID |
|-------------------------|---|-------------------------|------------|
| Beech Creek | Downstream Hicks Lake, near Rome to Coosa River | Fecal Coliform Bacteria | CSA0000070 |
| Coosa River | Rome to Hwy 100 | Fecal Coliform Bacteria | CSA0000086 |
| Webb Creek | Coosa River Tributary | Fecal Coliform Bacteria | CSA0000069 |
| Horseleg Creek * | Rome | CFB (PCBs) | CSA0000031 |
| Mount Hope Creek * | Coosa River Tributary | CFB (PCBs) | CSA0000066 |

| | | | |
|---------------------------|---|----------------------|------------|
| Coosa River * | Rome to Hwy 100 | CFB (PCBs) | CSA0000045 |
| Smith Creek/Cabin Creek * | Smith Cr. headwaters to Coosa River, Lake Weiss | CFB (PCBs) | CSA0000035 |
| Coosa River * | Hwy 100 to State Line | CFB (PCBs) | CSA0000046 |
| Beech Creek * | Downstream Hicks Lake, near Rome to Coosa River | CFB (PCBs) | CSA0000039 |
| Kings Creek * | Coosa River Tributary | CFB (PCBs) | CSA0000094 |
| Webb Creek * | Coosa River Tributary | CFB (PCBs) | CSA0000040 |
| Hamilton Creek * | Coosa River Tributary | CFB (PCBs) | CSA0000032 |
| Coosa River * | Hwy 100 to State Line | Low Dissolved Oxygen | CSA0000085 |
| Coosa River * | Hwy 100 to State Line | FCG (PCBs) | CSA0000080 |
| Coosa River * | Rome to Hwy 100 | FCG (PCBs) | CSA0000081 |

* Plan will be written by GA EPD

II. GENERAL INFORMATION ABOUT THE WATERSHED

Write a narrative describing the watershed, HUC 10 #0315010501. 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.

Beech Creek headwaters from Hicks Lake, Rome, Georgia and flows southwesterly through relatively flat flood plain (of the Coosa River) to enter the Coosa River between Camp Bend and Turner Bend. The headwaters of this Coosa tributary lie in a hollow on Lavender Mountain known as Hicks Lake where Berry College maintains Possum Trot Lake as its reservoir (Georgia Permit # GA1150003).

According to the 2003 Source Water Assessment Plan done for the Berry Reservoir, “the watershed for the reservoir consists of 480 acres of mixed eastern deciduous/evergreen forest with one road going through the area (CVRDC, 2003).” This SWAP cites wildlife as the only potential pollution source in the watershed but mentions that monthly sampling of the lake has indicated no water quality violations. As a water supply reservoir, environmental criteria apply as detailed in the Georgia EPD Chapter 391-3-16 Rules for Environmental Planning Criteria including 100-foot buffer requirements. As the watershed of the reservoir is undeveloped deciduous forest, at this time there are no pollutant concerns with the exception of wildlife.

Berry College and USDA Farm Service Agency have partnered using the Conservation Reserve Program to develop an extensive project to fence cattle out of streams on Berry College property.

The field survey indicated that Beech Creek at Mays Bridge Road was muddy, at low flow, and out of its banks due to heavy rainfall. There was a good tree buffer. The area drained rural houses, farms and pasture land and was accessible to wildlife. Upstream at the Hwy 20 bridge culvert, the stream was muddy to clear with good flow and some tree buffers. The area drained high ground and pasture land to the creek. Houses in the area were not near the creek.

Land use categories for the contributing watershed include the following for a total of 16, 516 acres: The majority (79.2%) of lands are forest, at 13,085 acres; 8.0% are pasture/hay at 1,327 acres; row crops form 5.0% at 826 acres; 3.6 percent of lands are high intensity residential at 600 acres; 1.1% of lands are high intensity commercial/ industrial/ transportation at 185 acres; 1.0% of lands are other grasses at 162; and the following each form less than 1%, including woody wetlands, open water, quarries/strip mines/gravel pits, transitional, and emergent herbaceous wetlands (DNR, 2004). The data on land use are taken from Georgia DNR publication *Total Maximum Daily Load Evaluation for Fifty-Eight Stream Segments in the Coosa River Basin for Fecal Coliform* (2004). This is the most recent land use data available for this watershed.

Coosa River begins at Rome, Georgia at the junction of the Etowah and Oostanula Rivers. The major portion of this waterway is in Alabama. The Coosa River channel varies in width from 300 to 500 feet with banks 25 feet in height along the flood plain.

The Source Water Assessment Plan for the City of Rome's water intake on the Coosa River near Horseleg Creek Road was conducted in 2003. The intake feeds into the Rome WPCP (CVRDC, 2003). For this watershed the SWAP lists wildlife as the "only potential pollution source" and comments "monthly sampling has not shown this to be a problem (CVRDC, 2003)."

Included in this watershed is Blacks Bluff Preserve, owned and managed by the Nature Conservancy. The 132-acre hardwoods forest area located off Black's Bluff Road is home to several endangered species including limerock arrow wood, the large flowered skullcap, and others. Adjoining the preserve is an area of private lands known as flatwoods, which was placed in a conservation easement due to the discovery of an endangered species, the whirled sunflower, in this area.

Additionally the Marshall Forest Preserve, maintained by the Nature Conservancy, is located off Horseleg Creek Road along the Coosa just outside Rome city limits. It is a 311-acre old-wood hardwood forest. Wildlife in the preserve includes salamanders, frogs, snakes, and birds.

The Brooks Brothers Farm is also located in this area off the Coosa River. This farm has received some funding through NCRS for conservation and best management practices. Brooks Brothers Farms in Floyd County is no longer a CAFO due to a decrease in number of animal units.

The field survey indicated that at Blacks Bluff Extension bridge crossing near the intersection with Horseleg Creek Road, the flow of the river was normal with lots of pools. Waters were clear. Forest was seen on both sides of the river.

Land Use categories for the contributing watershed include the following, for a total of 1,525,155 acres: The majority (74.2%) of lands are forest, at 1,131,142 acres; 13.3% are pasture/hay at 202,183 acres; row crops form 5.3% at 81,026 acres; 2.3 percent of lands are transitional at 35,685 acres; 1.2% of lands are high intensity residential at 18,226 acres; 1.1% of lands are low intensity residential at 17,137 acres; 1.0% of lands are high intensity commercial/ industrial/ transportation at 15,046 acres; and the following each form less than 1%, including other grasses, woody wetlands, quarries/strip mines/gravel pits, emergent herbaceous wetlands, and bare rock/sand/clay (DNR, 2004). The data on land use are taken from Georgia DNR publication *Total Maximum Daily Load Evaluation for Fifty-Eight Stream Segments in the Coosa River Basin for Fecal Coliform* (2004). This is the most recent land use data available for this watershed.

Webb Creek, called Bush Arbor Creek by residents, is a tributary to the Coosa River. Webb Creek headwaters from an unnamed spring near U.S. 411 in Vans Valley through relatively steep slopes and into the flood plains of the Coosa River opposite from Horseleg Mountain, one mile north of Blacks Bluff Road and enters the Coosa River 1 ½ miles downstream of Mayo Bar (the Lock and Dam). At the confluence of Webb/ Bush Arbor

Creek and the Coosa River, wetlands have formed, either due to or including the activity of beaver. Webb Creek watershed has the largest percentage of land in wetlands compared to the other listed streams and their watersheds.

The field survey indicated that at Blacks Bluff Road Crossing forest was predominant and creek banks were well preserved. Water was partly muddy to clear with low flow. Walker Mountain landfill was seen as a potential source of fecal coliform. At Cunningham Road, creek had a good flow and was clear upstream but less clear downstream. Banks appeared very stable. Potential sources included possible runoff from pastures although cattle, horses were fenced out of stream.

Land Use categories for the contributing watershed include the following, for a total 5,494 acres: The majority (74.0%) of lands are forest, at 4,068 acres; 15.8% are pasture/hay at 867 acres; row crops form 6.8% at 371 acres; 2.5 percent of lands are woody wetlands at 139 acres; and the following each form less than 1%, including transitional, open water, high intensity commercial/industrial/transportation, high intensity residential, and emergent herbaceous wetlands (DNR, 2004). The data on land use are taken from Georgia DNR publication *Total Maximum Daily Load Evaluation for Fifty-Eight Stream Segments in the Coosa River Basin for Fecal Coliform* (2004). This is the most recent land use data available for this watershed.

The Lock and Dam Park Coosa River Nature Center is located near Webb Creek at Mayo's Lock and Dam, along the Coosa River, off Blacks' Bluff Road. It is on the National Registry of Historical Places and is a recreational area open to the public. It is maintained by the City of Rome.

Relevant Watershed Planning and Management Activities

Erosion and Sedimentation

Rome and Floyd County are Local Issuing Authorities for E & S permitting of land-disturbing activities which are required to submit an NOI under the NPDES General Permit for Construction Activity.

The 2005 Unified Land Development Code of Rome-Floyd County includes the following ordinances: Section 6.13, Erosion and Sedimentation Control including a requirement for E and S Plans by developers; Section 6.14, Flood Damage Prevention (references the Flood Insurance Study of 2000); Section 3.3, Zoning regulations that include Planned Development zoning with a requirement for 20% of land within the residential development to be preserved as openspace, excluding recreational space; Section 6.15, Stormwater Management including a stormwater management plan required of developers; Section 6.18 addressing tree planting requirements; and Section 6.19, addressing watershed and wetlands protection, including setback restrictions and greenways of 100 feet on river corridors and 40 feet on tributaries including Silver Creek, Armuchee Creek, and Big Cedar Creek.

Existing floodplain management ordinances will be revised as the county participates in updating flood hazard regions through the National Flood Plain Insurance Program/ Georgia DNR Floodplain Management Office Flood Map Modernization Program.

House Bill 285 requires state certification in Erosion and Sedimentation Control for anyone involved in the following activities: land development, design, review, permitting, construction, monitoring, inspection, or any land-disturbing activity in Georgia. This certification is done through training by the Georgia Soil and Water Conservation Commission in consultation with Georgia Environmental Protection Division and the Stakeholder Advisory Board. The GSWCC also has updated requirements for E&SC plans to be submitted with each project. Certification requirements apply

to all such persons in Floyd County. Certification is offered through the Rolling Hills Regional Conservation and Development Council (RC & D) for these counties.

Georgia Forestry Commission Best Management Practices

The Forestry Commission has implemented best management practices on its lands to reduce sedimentation and erosion from silviculture practices. The Georgia Forestry Commission also provides education, technical and financial assistance through cost-share programs to private landowners especially in the Forestland Enhancement Program, a part of the 2002 Farm Bill. Ongoing Georgia Forestry Commission activities include the following programs.

- Federal Clean Water Act Section 404: GFC received referrals from EPA for compliance determinations in situations involving forestry. It requires normal ongoing agricultural and silvicultural practice to adhere to BMPs and 15 baseline provisions for road construction and maintenance in and across waters of the US including lakes, rivers, perennial and intermittent streams, wetlands, sloughs in order to qualify for the exemption from the permitting process.
- Georgia's Best Management Practices: A GFC program to inform landowners, foresters, timber buyers, loggers site preparation and reforestation contractors and others involved with silvicultural operations about commonsense, economical effective practices to minimize nonpoint source and thermal pollution. GFC encourages and monitors compliance and conducts a complaint resolution program.
- Georgia Forestry Commission Monthly BMP Assurance Examination: In an effort to document "reasonable assurance" that water quality will be proactively protected during regular ongoing silvicultural operations, the GCF will offer a monthly BMP assurance examination of active sites. All active of ongoing sites will be identified either through monthly air patrol flights, courthouse records, riding the roads, notification or by landowners. Sites located within watersheds of specific biota (sediment) impaired streams will be given a higher priority to identify and conduct examinations.
- Memo to the Field: Application of BMPs to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast (Silviculture). Although overseen by the EPA/ US Army Corps of Engineers, cases are normally referred to GFC to make the initial determination. It identifies certain bottomland hardwood wetlands that should be subject to permitting if converting to pine plantations.

Department of Natural Resources Best Management Practices

The Department of Natural Resources, Wildlife Management Division provides outreach to landowners on prevention of soil erosion and sedimentation from land-disturbing activities contributing to habitat destruction, advises landowners of best management practices and habitat development for increased wildlife on their property, and encourages landowners to implement conservation practices on their lands through the NRCS.

2002 Farm Bill, US Department of Agriculture Natural Resources Conservation Service and Farm Service Agency

The Farm Security and Rural Investment Act of 2002 (Farm Bill 2002) funded conservation practices for farmers and ranchers with a focus on environmental issues by making existing programs simpler as well as funding new programs. The 2002 Farm Bill enhances the long-term quality of our environment and conservation of our natural resources. This bill provides several opportunities for receiving grants to improve water quality. These include the following programs administered by the US Department of Agriculture, Natural Resources Conservation Service and Farm Service Agency. Specifically in this watershed, Berry College and USDA Farm Service Agency have partnered using the Conservation Reserve

Program to develop an extensive project to fence cattle out of streams on Berry College property. Also, small horse farms along the Coosa River have become eligible for the first time in 2006 for the EQIP program. Some use of the EQIP program is expected along the Coosa River in the future.

- The Federal Farm Bill (Swampbuster Ag) prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture.
- The Water Bank Act preserves, restores and improves wetlands of the Nation and thereby conserves surface waters to preserve and improve habitat for migratory waterfowl and other wildlife resources to retire lands not in agricultural production to enhance the natural beauty of the landscape and to promote comprehensive and total water management planning. 10-year contracts with landowners to preserve wetlands and retire adjoining agricultural lands. Annual payments may be made to participating owners, and the costs of conservation measures may be shared. Total annual payments to owners were limited to \$10 million in any year.
- The Conservation of Private Grazing Land Program will offer technical assistance opportunities for better grazing land management. Projects for improving water quality include: protecting soil from erosive wind and water; conserving water; providing habitat for wildlife; sustaining forage and grazing plants. This is not a Cost-Share Program.
- Conservation Security Program (CSP) is the first program that rewards farmers and ranchers for high levels of environmental stewardship. Producers on cropland, orchards, vineyards, pasture and range may apply for CSP regardless of size, type of operation, or crops produced. Land in other cost share programs is not eligible. CSP will first be offered in watersheds with greatest potential for improving water quality, soil quality and grazing land condition. In 2005, the four watersheds of focus will be the Ichawaynochaway, Kinchagoonee-Muckalee, Middle Flint, and Upper Ochlockonee. An enhancement example is to install a riparian buffer. There are three tiers of involvement, which result in different expectations and cost share opportunities.
- Environmental Quality Incentives Program (EQIP) is a voluntary program that provides technical and cost share assistance for protection of ground and surface water, erosion control, air quality, wildlife habitat, and plant health. It is a 50% cost share with possible additional incentive payments.
- Wetlands Reserve Program (WRP) provides technical and financial assistance to landowners to enhance wetlands degraded by farming or draining. There are three options with WRP to receive funds that have differing time agreements and easements resulting in different cost share. In all programs participants control access to the land, may lease or use land for hunting, fishing, and other passive recreational activities. Compatible uses are allowed as long as they do not degrade the wetland. Permanent Easement pays appraised value of land (\$2,000/ acre cap) and 100% of costs of restoration. The 30-Year Easement pays 75% of appraised value of land and 75% of restoration costs. The Restoration Cost Share Agreement pays 75% of restoration costs, no easement on the property.
- The Conservation Reserve Program (CRP) provides technical assistance, rental payments and cost share funding to address specific natural resource concerns including: protection of ground and surface waters, soil erosion and wildlife habitat. Eligible practices include tree planting, grassed waterways, wildlife habitat buffers, and shallow water area for wildlife and filter strips. An annual rental payment is given for land taken out of production and 50% cost share for practice installation.

Coosa River Basin Modeling Project (Georgia DNR EPD)

Georgia DNR EPD and USEPA are in the process of conducting a monitoring project to study the accuracy of the model developed for the Coosa River Basin. Monitoring is ongoing in 2005-2006 on the Coosa River and its tributaries. Data will be incorporated into the Total Maximum Daily Load (TMDL) for dissolved oxygen. The Coosa River Modeling work will be done by the Georgia DNR EPD in 2006 and 2007. A final model will

link the Coosa River model and the Lake Weiss model. The combined models will evaluate oxygen demanding loads, nutrient loads, and temperature effects for heat loads, on dissolved oxygen (DO) concentrations in the Coosa River. The following data will be collected in separate modules:

- Watershed flow and temperature data
- Continuous water quality monitoring
- Water quality sampling
- Chlorophyll *a* sampling
- Wastewater treatment facility sampling and data collection (module 5)
- DO and temperature depth profiles
- Basin-wide phosphorus data
- Specialized studies
 - Reaeration measurements
 - Sediment Oxygen Demand measurements
 - Long-Term Biochemical Oxygen Demand (BODs)
 - Dye studies

Monitoring will be done on the Coosa at the confluence and midway through this listed segment for each of the following modules: Watershed flow and temperature data, Continuous water quality monitoring, Water quality sampling, Chlorophyll *a* sampling, Wastewater treatment facility sampling (BOD, DO, Temp, TKN, NH₃, NO₂-NO₃, total P, ortho-phosphate, TOC, conductivity, and Ph), DO and temperature depth profiles, and Specialized studies (EPD).

Module 1: Watershed Flow and Temperature Data. This module includes the installation and annual operation and maintenance of watershed stream flow gages with temperature recorders, for two years. The data from these gages will be used either directly as model input or to estimate tributary input data for engaged streams (Georgia DNR EPD).

Module 2: Continuous Water Quality Monitoring. Continuous water quality monitors will be installed and maintained for the study period at a number of tributary and mainstem locations. Continuous water quality monitors will be installed on the Conasauga River at the USGS gaging stations at Eton and downstream from Carters and Allatoona Dams to collect upstream boundary condition data necessary for EPD RIV-1. The monitors will record DO, temperature, conductivity, pH, and depth at hour intervals (EPD).

Module 3: Water Quality Sampling. This module includes the collection and analysis of discrete water quality samples at locations on the Coosa River mainstem and tributaries from Allatoona Dam on the Etowah River, Carters Lake on the Coosawattee River, and the USGS Eton gage on the Conasauga River to the George/Alabama State Line. The data collection will include discrete mainstem and tributary water quality sampling. The samples will be analyzed for carbonaceous and total BOD₅ (inhibited and uninhibited), DO, temperature, TKN, NH₃, NO₂-NO₃, total phosphorus, ortho-phosphate, TOC, conductivity, and pH. Flow measurements will be made at the time of sample collection (Georgia DNR EPD).

Module 4: Chlorophyll A. Periodic collection of chlorophyll A data on tributaries.

Module 5, Wastewater Treatment Facility Sampling and Data Collection, will include discharge monitoring reports (DMRs) and/or operating monitoring reports (OMRs) data from wastewater treatment plants and sampling of mainstem and tributary dischargers. The additional sampling will be done as a quality assurance check for data given by the dischargers (Georgia DNR EPD).

Module 6: DO and Temperature Depth Profiles, will collect temperature and DO depth profiles on the centerline runs at selected river station to determine mixing.

Module 8: Special Studies. This module includes several specialized studies including reaeration, sediment oxygen demand (SOD), long-term BOD tests, and dye studies. River, tributary and selected wastewater treatment plant effluent samples will be collected for long-term BOD analysis during the field surveys. Long-term BOD analyses will include periodic testing of nitrogen components to determine possible nitrification reactions. Aged river water will be used as dilution water, when necessary. Samples will be collected and analyzed from each location for both monitoring years (Georgia DNR EPD).

Other Watershed Activities

The Northwest Georgia Regional Water Resources Partnership (NGRWRP) was created in 2002. The NGRWRP is an organization of water permit holders, local governments, industry, environmental, and other advocacy entities in Northwest Georgia with an interest in water issues (North Georgia Regional Development Center, 2005). The purposes of the Partnership are to monitor and contribute to the development of federal, state, and local water policy; educate the citizenry on water related issues; seek funding and facilitate the development of regional water-related assessment and planning activities; and coordinate the activities of federal, state, and local entities (NGRDC, 2005). Jerry Jennings, Floyd County Board of Commissioners, serves on the partnership's executive committee as does Leigh Ross, Director of the Rome-Floyd County Water Department.

Rome-Floyd County participates in two annual stream clean-ups as part of their environmental education and outreach. The Spring cleanup usually held in April coordinates with Georgia Power's Plant Hammond to do stream clean-ups at four sites along the Coosa from its confluence with the Etowah and the Oostanaula to the state line. These sites are Heritage Park in Rome, Mayo's Bar Lock and Dam, Rushing Branch, and Plant Hammond. The clean-up has occurred yearly since 2000. There is also stream clean-up activity on the Coosa in the fall, yearly, in conjunction with Rome-Floyd County and the DNR through Rivers Alive.

Rome-Floyd County has previously conducted two Water Education for Teachers workshops, in 2004 and in 2005, to train teachers on water quality education to be integrated into the curriculum. Three schools have done so, including Armuchee Elementary, West End Elementary, and Berry Elementary. The goal is to continue to train teachers so that more schools integrate the water quality education into their curriculums. The Coosa River Basin Initiative conducts the water drop non-point source pollution education programs for elementary school students in Floyd County through a grant from Temple-Inland. As well, Get the Dirt Out is another project which provides volunteer training for construction site inspection and identification of failure to use BMPs in construction activities. The project was implemented in March 2005 and covers the Northwest Georgia area of the Coosa River Basin. CRBI also monitors at several sites along the Coosa River.

Rolling Hills Resource Conservation and Development Council conducts the Envirothon, a yearly competition for high school students, testing skills and knowledge of aquatics including water quality and other environmental topics. District and State competitions will be in March 2006. The

RC&D also conducts other projects such as Better Back Roads demonstration projects, dirt roads treated with a sealant that reduces erosion from these surfaces, as well as the no-till planter lease programs. This RC&D sponsors two river alliances as well, the Conasauga River Alliance and the Upper Etowah River Alliance. Other projects are in the proposal stages.

The Coosa River Basin Initiative conducts the water drop non-point source pollution education programs for elementary school students in Floyd County through a grant from Temple-Inland. As well, Get the Dirt Out is another project which provides volunteer training for construction site inspection and identification of failure to use BMPs in construction activities. The project was implemented in March 2005 and covers the Northwest Georgia area of the Coosa River Basin.

Rome-Floyd County has previously conducted two Water Education for Teachers workshops, in 2004 and in 2005, to train teachers to do water quality education integrated into the curriculum. Three schools have done so, including Armuchee Elementary, West End Elementary, and Berry Elementary. The goal is to continue to train teachers so that more schools integrate the water quality education into their curriculums.

Floyd County Environmental Health Departments participates in a statewide DVD education program for new septic system owners. The Health Department can only check systems if there are complaints, which are sometimes received from landowners. Additionally homeowners or real estate agents ask that the older septic system be checked during remodeling or prior to resale. New regulations for septic system installation recently introduced which require those operators conducting septic system pumpouts to submit monthly logs of their activities.

Beech 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 |
|---------------------|---|------------|----------------|-------|
| Beech Creek | Downstream Hicks Lake, near Rome to Coosa River (Floyd County) | 10 | Fishing | NS |

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 Bacteria (FC) | 1,000 per 100 ml (geometric mean November-April) 200 per 100 ml (geometric mean May- October) | Wildlife Agricultural/Livestock <ul style="list-style-type: none"> • Animal grazing • Animal access to streams • Application of manure to pastureland and cropland Urban Development <ul style="list-style-type: none"> • Stormwater runoff • Sewerage system leaks • Malfunctioning septic systems | 83% |

Coosa River

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

| STREAM SEGMENT NAME | LOCATION | MILES/AREA | DESIGNATED USE | PS/NS |
|---------------------|------------------------------------|------------|----------------|-------|
| Coosa River | Rome to Highway 100 (Floyd County) | 16 | Fishing | NS |

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 Bacteria (FC) | 1,000 per 100 ml (geometric mean November-April) 200 per 100 ml (geometric mean May- October) | Wildlife Agricultural/Livestock <ul style="list-style-type: none"> • Animal grazing • Animal Access to streams • Application of manure to pastureland and cropland Urban Development <ul style="list-style-type: none"> • Stormwater runoff • Sewerage system leaks • Malfunctioning septic systems | 49% |

Webb 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 |
|---------------------|--------------------------------------|------------|----------------|-------|
| Webb Creek | Coosa River Tributary (Floyd County) | 4 | Fishing | NS |

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 Bacteria (FC) | 1,000 per 100 ml (geometric mean November-April) 200 per 100 ml (geometric mean May- October) | Wildlife Agricultural/Livestock <ul style="list-style-type: none"> • Animal grazing • Animal Access to streams • Application of manure to pastureland and cropland Urban Development <ul style="list-style-type: none"> • Stormwater runoff • Sewerage system leaks • Malfunctioning septic systems | 49% |

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

Verification of the significance and extent of the sources or causes of each impairment listed in the TMDLs was done through a series of field surveys and stakeholder meetings. The TMDLs list three probable causes of fecal coliform contamination: Wildlife, Urban Development, and Agricultural/ Livestock. Reductions expected from the overall contaminant loading range from 49% to 89%.

A series of stops allowing visual field surveys of the Coosa River, Beech Creek, and Webb Creek were conducted to visually evaluate stream condition including turbidity, sedimentation and erosion, stream bank condition, streambed condition, depth, flow, and color. Field surveys also noted the presence of any factors thought to contribute to non-point sources of fecal coliform loadings including wildlife, animal grazing, animal access to streams, application of manure to pastureland and cropland, possibility of leaking septic systems, Land Application Systems (LAS) and landfills. These data from field surveys were combined with GIS data and EPD listings of NPDES dischargers as well as information from stakeholders. Photographs of sources seen in the field surveys and corroborated by stakeholders are found in Appendix C.

Landfills

One privately owned landfill, Walker Mountain Road Landfill, runs both MSWL (Georgia Permit # 057-020D) and C & D (Georgia Permit # 057-021D); it is located on Walker Mountain Road about one mile south of the Coosa River. It accepts solid waste from City of Rome and Floyd County.

Prater's Pond and Golf Course landfill is located on Morton Bend Road off Highway 100.

Floyd County operates six remote trash collection sites:

- Berryhill Site - Located on Berryhill Road in the western portion of Floyd County, Permit # 057-009D (SL).
- Cave Spring Site - Located on Kings Bridge Road, southeast of Cave Spring,
- Midway Park Site - Located on Midway Park Road, which is off Wax Road, in southeast Floyd County.
- Potts Road Site - Located on Potts Road in northeast Floyd County.
- Shannon Remote Site - Located on Burlington Drive in northeast Floyd County in the Shannon Community.
- Hatfield Site - Located on Jones Mill Road in northern Floyd County.
- Walker Mountain Landfill (706-291-4512) - Located on Walker Mountain Road in east Floyd County.

Coosa River—Fecal Coliform Bacteria

Point Sources:

NPDES Dischargers of fecal coliform to the Coosa River include the following:

- Rome WPCP, Permit # GA0024112
- Rome Coosa WPCP, Permit # GA0024341

Other NPDES Dischargers to the Coosa River include Inland Container (Permit # GA0001104), and Georgia Power at Plant Hammond (Permit # GA0001457).

Non Point Sources:

Agricultural livestock runoff (Animal grazing), Wildlife sources, Urban development (Stormwater runoff, sewerage system leaks, malfunctioning septic system).

Pastures, cattle grazing, and small horse farms drain to the Coosa along Horseleg Creek Road. Please see photograph 1. 0315010501 Coosa River: Horseleg Creek Rd beyond Featherston Rd., cattle pasture runoff to creek.

The Coosa begins at the confluence of the Oostanaula and the Etowah in downtown Rome, draining urban development and impervious surfaces. Please see photographs 5. 0315010501 Coosa River: Second Avenue Bridge downstream from Bridgepoint Plaza, area drains impervious surfaces and recreational areas; and 7. 0315010501 Coosa River: Second Avenue Bridge, downtown Rome, drains urban impervious surfaces.

The majority of this watershed is outside the urbanized area of Rome and would be on septic systems. In Floyd County, of a total of 16,981 septic systems recorded, 4,411 systems were installed and 987 were repaired between 1990 and 2000 (EPD, 2004). Septic system installation is regulated through permits and inspections of on-site sewage management systems; plumbers and other maintenance operators are required to submit monthly logs of pump-outs and maintenance done to systems.

Undeveloped land near river is a hunting and shooting preserve. Wildlife in the area include deer and beaver. Please see photographs 3. 0315010501 Coosa River: Livingston Rd., extensive beaver activity, ponds within 200 feet of stream; and 4. 0315010501 Coosa River: Turner's Bend Rd. at dead end, property's hunting rights leased.

Beech Creek—Fecal Coliform Bacteria

Point Sources: None were identified.

Non point sources:

Agricultural livestock runoff (Animal grazing), Wildlife sources, Urban development (Stormwater runoff, sewerage system leaks, malfunctioning septic system). Along Horseleg Creek Road, some pastures with a few horses and cattle were seen. Please see photograph 8. 0315010501 Beech Creek: Mays Bridge Rd., area drains pastures, farms, and rural residential areas. No large cattle farms or horse stables in the area.

Wildlife are throughout this area including deer, beaver, and geese. Please see photograph 9. 0315010501 Beech Creek: Hwy 20 Bridge Culvert, creek accessible to wildlife.

The majority of this watershed is outside the urbanized area of Rome and would be on septic systems. In Floyd County, of a total of 16,981 septic systems recorded, 4,411 systems were installed and 987 were repaired between 1990 and 2000 (EPD, 2004). Septic system installation is regulated through permits and inspections of on-site sewage management systems; plumbers and other maintenance operators are required to submit monthly logs of pump-outs and maintenance done to systems.

There were no landfills, CAFOs or LAS sites within this northern part of the county. There are no mining operations close to this segment.

Webb Creek—Fecal Coliform Bacteria

Point Sources: None were identified.

Non point sources:

Agricultural livestock runoff (Animal grazing), Wildlife sources, Urban development (Stormwater runoff, sewerage system leaks, malfunctioning septic system). An informal conversation with a local resident indicated that the beaver population had wreaked havoc on the Webb Creek watershed. Please see photographs 10. 0315010501 Webb Creek: Black's Bluff Road Crossing- pasture drains to creek; and 11. 0315010501 Webb Creek: Black's Bluff Road Crossing- Stream accessible to wildlife.

The majority of this watershed is outside the urbanized area of Rome and would be on septic systems. In Floyd County, of a total of 16,981 septic systems recorded, 4,411 systems were installed and 987 were repaired between 1990 and 2000 (EPD, 2004). Septic system installation is regulated through permits and inspections of on-site sewage management systems; plumbers and other maintenance operators are required to submit monthly logs of pump-outs and maintenance done to systems.

Field Survey Notes (Please See Photographs in Appendix C)

0315010501 Coosa River COOSA RIVER – Rome to Hwy 100

Jill Joss
6/14/05
Wx: 85 sunny and humid

I. 2nd Avenue Bridge - downtown Rome, urban influences

Downstream at the confluence of Silver Creek, one can readily see where sediment is dropped as creek enters the river. Photographs taken: 5. 0315010501 Coosa River: Second Avenue Bridge downstream from Bridgepoint Plaza, area drains impervious surfaces and recreational areas; and 7. 0315010501 Coosa River: Second Avenue Bridge, downtown Rome, drains urban impervious surfaces.

II. Horseleg Creek Road – between road and river is dominated by sparse residential development. In-between homes the floodplain/buffer zone is fairly heavily wooded. New residential construction, silt fences seen. Large PVC pipes coming up from ground approximately 30 ft from banks of the river, at either edge of home site. Unsure of their function.

Photograph taken: 6. 0315010501 Coosa River: Horseleg Creek Road- new and existing residential development.

III. Marshall Forest Preserve – registered natural landmark managed by the Nature Conservancy across Horseleg Creek Rd. from the river. Wildlife may be source of fecal. A tributary to the river flows through the preserve.

IV. Cattle and pasture beyond, substantial floodplain and forested buffer zone lies between the pasture and river. Along Horseleg Creek Rd. beyond Featherston Rd. are many pastures for cattle and horses. *Horseleg Creek Plantation Country Club as potential stakeholders.*

Photograph taken: 1. 0315010501 Coosa River: Horseleg Creek Rd beyond Featherston Rd., cattle pasture runoff to creek.

V. Small lake/reservoir. Possible source of fecal contamination - lake has an outflow to the river.

VI. Ausburn Rd. – mostly older housing mixed with a few new homes, some too close to river to allow for adequate buffer. Geese seen in pond and walking through pasture.

Photograph taken: 2. 0315010501 Coosa River: Ausburn Rd, geese walking through pasture.

VII. Kraftsman Rd. off Turners' Bend– fenced, locked facility. Location of a closed landfill.

VIII. Further down Turners' Bend Rd. Well buffered. Wetlands in foreground, power plant (Plant Hammond - point source) smokestack in the background. Older homes sparsely dispersed along road, possibly rely on septic.

IX. Prater's Pond at golf course, another just like it around the corner. A possible source of fecal from wildlife.

X. As Turners' Bend road dead ends, less than one mile from river, Temple-Inland owns and leases land for hunting rights. Wildlife as possible source of fecal. The floodplain on the river side of the road is largely undeveloped with a minimum of pasture.

Photograph taken: 4. 0315010501 Coosa River: Turner's Bend Rd. at dead end, property's hunting rights leased.

XI. Hwy 100 Bridge Plant Hammond in background downstream

XII. Hwy 100 between Hwy 20 and Morton Bend Rd. –Row crops on both sides of Hwy 100. Turfgrass America plant within a mile of the riverbank. A quarter mile further down rd. on river side is a Partners for Wildlife Project, Bridges Brothers Farm. Project is the result of partnering between Soil and Water Conservation Commission, Fish & Wildlife, Coosa River Soil and Water Conservation District, and the USDA Natural Resource and Conservation Service. Beyond the row crops is a densely wooded area serving as a buffer. Stakeholders?: *West Floyd Ruritan Club, Flowers Hunt Club*

XIII. Livingston Rd. Extensive beaver activity, ponds within 200 ft. of stream.

Photograph taken: 3. 0315010501 Coosa River: Livingston Rd., extensive beaver activity, ponds within 200 feet of stream.

XIV. Lemming Rd. Pasture all along road extending to within 500 ft. of river. Older residential may rely on septic systems. At the dead end of road is shooting preserve, wildlife as potential source of fecal.

Camera problems, survey continues past lock and dam area along Blacks Bluff Rd. into Rome without photographs. Along Blacks Bluff Rd. is a lot of horse pasture. As Blacks Bluff comes closer to Rome an old quarry has been converted to a nature preserve. At the far end of Blacks Bluff Rd. is old residential, the Floyd County Prison, and The City of Rome WPCP and its improvements underway.

Field Survey Beech Creek (Downstream Hicks Lake, near Rome, to Coosa River)

Survey Team: Nancy Gribble

Date: July 5, 2005

Weather Conditions: Partly Cloudy, ~80 degrees F. and humid

Stop # 1: Mays Bridge Road

Stream appearance was muddy, not a very noticeable flow, the creek was up and out of its banks probably due to heavy rainfall in the last 2-3 days. Good tree buffer to creek area. Area drains rural houses, farms and pasture land.

The creek is accessible to wildlife.

Photograph taken: 1. 0315010501 Beech Creek: Mays Bridge Rd., area drains pastures, farms, and rural residential areas.

Stop # 2: Hwy 20 bridge culvert under 5 lane highway

The stream was muddy to clear, good flow, tree buffer, area drains from railroad track as high ground and pasture land.

Horses seen in the area along with some cattle grazing

Photograph taken: 2. 0315010501 Beech Creek: Hwy 20 Bridge Culvert, creek accessible to wildlife.

Houses in the area are not near the creek.

Field Survey Webb Creek

Date: May 26, 2005

Field Reconnaissance by Jill Joss & Nancy Gribble

Local residents call this "BUSH ARBOR" Creek

Point No. 1—Webb Creek at Blacks Bluff Road Crossing

Conditions: sunny, ~75 degrees F., forested both sides (North and South), banks well preserved, water partly muddy, clear in areas, low flow, not quite stagnant

Observations of wildlife: 2 turtles, 1 chipmunk

Potential sources list: Walker Mt. landfill to the East

Photographs Taken:

1. 0315010501 Webb Creek: Black's Bluff Road Crossing- pasture drains to creek; and 2. 0315010501 Webb Creek: Black's Bluff Road Crossing- Stream accessible to wildlife.

Point No. 2—Webb Creek at Cunningham Road crossing

Conditions: sunny, ~ 78 degrees F., 2-3 feet deep, good flow, fairly clear upstream with some riffles, downstream side less clear in pools, banks appear very stable, concreted stream culvert under crossing, at road level marked USGS with yellow block.

Observations of wildlife: Small minnows in pools

Potential sources list: possible cattle contamination on the upstream side, fenced but would get runoff from the pasture. Downstream side, horses seen in pasture.

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 affected, the stream miles affected, 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

Beech Creek

| PARAMETER | POTENTIAL SOURCES | ESTIMATED EXTENT OF CONTRIBUTION | ESTIMATED MAGNITUDE OF CONTRIBUTION | COMMENTS |
|-------------------------|--|---|-------------------------------------|--|
| Fecal Coliform Bacteria | Agricultural livestock runoff | Throughout the impaired 10-mile segment | Small to Moderate | Several small farms with horses and cattle |
| FC | Wildlife sources | Throughout the impaired 10-mile segment | Small to Moderate | Presence of wildlife throughout, noted in SWAP |
| FC | Urban development <ul style="list-style-type: none"> Stormwater runoff Sewerage system leaks Malfunctioning septic system | Throughout the impaired 10-mile segment | Small to Moderate | |

Coosa River

| PARAMETER | POTENTIAL SOURCES | ESTIMATED EXTENT OF CONTRIBUTION | ESTIMATED MAGNITUDE OF CONTRIBUTION | COMMENTS |
|-------------------------|--|---|-------------------------------------|----------|
| Fecal Coliform Bacteria | Agricultural livestock runoff | Throughout the impaired 16-mile segment | Moderate | |
| FC | Wildlife sources | Throughout the impaired 16-mile segment | Moderate | |
| FC | Urban development <ul style="list-style-type: none"> Stormwater runoff Sewerage system leaks Malfunctioning septic system | Throughout the impaired 16-mile segment | Moderate | |

Webb Creek

| PARAMETER | POTENTIAL SOURCES | ESTIMATED EXTENT OF CONTRIBUTION | ESTIMATED MAGNITUDE OF CONTRIBUTION | COMMENTS |
|-------------------------|--|--|-------------------------------------|---|
| Fecal Coliform Bacteria | Wildlife sources | Throughout the impaired 4-mile segment | Moderate to large | Landowner comments beaver population has wreaked havoc on this watershed. Beaver dams and hunting preserves |
| FC | Agricultural livestock runoff | Throughout the impaired 4-mile segment | Moderate | |
| FC | Possible leaking or failing septic systems | Throughout the impaired 4-mile segment | Small | No known leaks |

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.

Stakeholder Determination

Stakeholder lists were developed by reviewing lists of stakeholders contacted and involved in previous TMDL projects and in Source Water Assessment Projects done by the Coosa Valley RDC. Other stakeholders were added as they came forward or through word of mouth were introduced to the process. As well, other stakeholders were contacted and asked to participate, if they had not already been listed. Stakeholders were informed of the process and invited to participate, and to attend informational sessions, by mass mailings.

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The Coosa Valley Regional Development conducted several TMDL informational and stakeholder public meetings:

May 17, 2005 TMDL Stakeholder Meeting held at the Forum in Rome, Georgia for the streams in the Coosa Basin (27 attendees, see comments)

September 1, 2005 TMDL Stakeholder Meeting held in Rome, Georgia for the Floyd/Chattooga County areas (24 attendees, see comments)

October 18, 2005 Fall Workshop-Northwest Georgia Regional Water Resources Partnership held in Dalton, Georgia. Workshop title: CLEAN WATER the TMDL Link, A Toolbox for Improving Water Quality. Coosa Valley Regional Development Center & North Georgia Regional Development Center had two separate breakout sessions on the TMDL Implementation Plans for Stakeholder Interest (73 attendees)

December 8, 2005 Stakeholder Meeting held at the Sara Hightower Regional Library in Rome, Georgia for Floyd and Chattooga Counties (12 attendees)

Stakeholders were also contacted individually to invite input into the implementation plans as members of the advisory committee.

Stakeholder Comments from Initial Meeting for Streams in the Coosa Basin

How does a stream get listed for Biota? Are there specific water body regulations?

Please explain Coosa Valley Regional Development Center's work plan.

Are templates for the TMDL Implementation available to the Conasauga River Alliance?

How does the watershed assessment fit together with the TMDL Implementation? (May refer to City of Cedartown watershed assessment.)

What happens if no city works on improving stream quality?

EPD needs to change standards on fecal coliform for the listing of streams.

How does nutrient quality become regulated? Interested in the phosphorous TMDLs and Lake Allatoona.

The North Georgia Water Resources Partnership will present grant opportunities across the fifteen county area.

How committed is EPD and Coosa Valley Regional Development Center in this process?

What happens after the stakeholders are identified?

How does EPD work with organizations to eliminate the identified problem source?

EPD needs to step up the approvals of the Phase II storm water plans. This would give some authority to certain groups to be responsible for runoff pollution.

The USDA has some funding available to public for stack houses and fence buffers.

Stakeholder Meeting for Floyd/Chattooga Counties SubBasin Comments

One problem is the release of water from Allatoona Dam. Second, some people are building too close to the waterways.

Stream buffer zones for trout and regular fishing designations.

Floyd County regulations supersede State of Georgia regulations on stream buffers to 100 feet.

We need clarification on septic tank installation.

Clarification provided on septic system regulations and what the county (Chattooga) expects.

Unfortunately the homeowner does not maintain septic systems, only when the water backs up or causes a problem or becomes odorous.

The District health department has a video on septic tank management.

A 90% cost-share program can be used to get farmers to put fencing up and make stream crossings.

Agricultural activities have been exempt from the buffer zones. NRCS agent described how fencing can be installed and exempt from taxing (Continuous Reserve Program)

It is a good time for landowners to get cost shares to do projects.

The CRBI volunteers would assist with any fencing work to aid farmers. Physical labor is available.

For beaver dams, what relief can be done?

How can dry weather affect the TMDL?

Local governments can set up monitoring to delist streams.

EPD has some funding for monitoring.

Cattle are large sources of fecal coliform in runoff for the Etowah River.

Why have cattle become an elevated issue for fecal coliform?

It seems that farmers are picked on for fecal runoff. Where was the sampling done?

Poultry farmers are concerned about fecal coliform data. It needs to be more current data.

Streams can be monitored to show that fecal coliform levels do fluctuate with weather conditions. Check streams for newer data or start new monitoring if funding is available. Do it!

The deer population is a great problem for fecal coliform.

The geese population is also a great contributor to the fecal coliform source.

Stakeholders were also contacted individually to introduce the TMDL implementation process and to invite input into the implementation plans as members of the advisory committee.

The **Floyd and Chattooga Stakeholder Advisory Group** was formed in February 2006 for the purpose of establishing and directing stream water quality monitoring and outreach efforts to address nonpoint source pollution. Stakeholders in this group represented Rome-Floyd County and Chattooga County.

This group met in February 2006 to review the draft TMDL Implementation Plans for watersheds in the county and to discuss monitoring and outreach efforts. Due to low turnout, implementation activities were discussed in more detail in a second meeting in March. The March 21st meeting was a discussion of recommended management measures including education and outreach on septic system maintenance, riparian buffers, and stormwater best management practices. These general measures were approved; details of the implementation activities will be further reviewed in upcoming months.

Meeting Summary, Chattooga/Floyd Counties TMDL Implementation Plan Advisory Group, February 14, 2006

Attendees included Leigh Ross, Rome-Floyd County Water and Sewer, Kenneth Mosely, Chattooga County Young Farmers' Association, Brent Allen, Chattooga County Extension Agent, and Wayne Hurley, Chattooga Farm Bureau, David Howerin, Planning Director, Coosa Valley RDC, Jill Joss, and Julie Meadows, Coosa Valley RDC, were present.

- Draft TMDL Implementation Plan for the Chattooga River watershed (HUC-10 0315010505) was reviewed.
- Stakeholders suggested comments and additions to the plan.
- Outreach activities including stream cleanups on Henry Branch Creek by a group from Chattooga High School were discussed.
- Land use changes were discussed. Stakeholders stated that row crops had decreased. Majority of livestock operations in county are cattle with very few poultry operations. Referenced UGA's Georgia County Guide. All remarked on prevalence of wildlife in watershed.
- Regarding NRCS programs, it was stated the major agricultural focus is on crop and pasture improvement including soil testing, proper application of fertilizer- nutrient management, grants for improving grass stands, improvement using rotational grazing and cross fencing. The Young Farmers Association had conducted classes with the NRCS. Several tours had been done of demonstration projects over past 3-4 years.

- Sampling and water quality monitoring that had listed these streams were discussed as was feasibility of further sampling. It was stated that communities have the burden of proof to delist the stream. It was asked what the cost of sampling for fecal coliform would be. It was replied that if the analyst already has a laboratory, if supplies and set-up already exist, the cost would be \$15 per sample, including labor. If not, the cost would be higher, around \$45 to \$60. Summerville and Trion have certified labs for water quality testing. It was mentioned that the City of Rome has run thousands of water quality tests and found much variability in levels of fecal coliform. The presence of wildlife, deer, geese, or cows, etc. in the water influences the count since one dropping contains millions of fecal coliform bacteria. Sampling after a rain also yields high counts.
- It was stated that the tributaries to these streams might have houses with septic systems along them. How to separate septic from agricultural and wildlife sources? If homeowners are on public water system, the outflow goes into septic system, not county sewer. Initial permitting for septic systems but no mechanism for those in trouble. Stakeholders remarked on infrared flyovers done by TVA, others to determine presence of failed or leaking systems. Regulations have been resisted as far as required maintenance.
- It was asked what point is this process at, whether to make recommendations or to continue gathering information.
- Stakeholders mentioned 319 h grants for proposed projects, stating that the process is at the brainstorming stage to think of possible outreach or implementation activities.
- Stakeholders asked about impaired segments, how these segments were determined to be impaired upstream of a point but not downstream.
- It was replied that just because a stream is not on the list, or a segment is not included, does not mean it is not impaired.
- It was stated that points at which segments begin and end may have to do with monitor locations.
- It was stated that the contractor would investigate use of the Summerville lab for water quality testing.
- A stakeholder replied that water sampling looks at total coliform while wastewater sampling looks at fecal coliform and that if fecal coliform is the testing issue, then that needs to be made clear to the water quality labs.

Meeting Summary, Floyd County TMDL Implementation Plan Advisory Group, February 21, 2006

Stakeholders introduced themselves. Leigh Ross, Rome-Floyd County Water and Sewer, Sheri Teems, NRCS, Jarrell Cagle, Farm Bureau Floyd County, Eric Lindbergh, Rome-Floyd County Environmental Services, John Bagwell, Farm Bureau and Bagwell Farms, Jill Joss, Coosa Valley RDC, and Julie Meadows, Coosa Valley RDC, were present.

- Draft TMDL Implementation Plans involving Floyd County, including Silver Creek, HUC 10 0315010416; Coosa-Beech Creek, HUC-10 0315010501; Big Cedar Creek, HUC10 0315010502; Armuchee Creek, HUC10 0315010305; and Oostanaula River, HUC10 0315010306 were reviewed.
- Recommended measures for septic system maintenance education and outreach were discussed.
- Education and outreach is a priority as well as required septic maintenance.

- The point was made that if the system backs up, maintenance is needed and education and outreach may not be effective. Most homeowners will not pay a thousand dollars to have septic system pumped out until it is in need of repair. It was stated that there is variability in a managed septic system and that it might fit a large lot development that was not concentrated enough for sewer, so the development could keep its rural quality. Newer septic systems are not the issue, but older. Newer systems were regulated and had to be on soil that passed a percolation test. However older systems or straight pipes were not regulated. There are approximately 17,000 septic systems in the county with three-fourths of those older than 1990. Stakeholders stated that the issue of septic systems needs to be faced with current development issues.
- The 319-funded grant project through Limestone Valley Resource Conservation and Development Corporation, Inc. to repair or replace older septic systems was mentioned. Rolling Hills RC&D may be interested in pursuing such a project, as they have a good working relationship with the Limestone Valley RC&D. The RDC will meet with EPD after the March 31st submission deadline to discuss funding of specific projects if a 40-60% cost share can be funded.
- Recommended measures for riparian buffer education and outreach were discussed.
- Buffers in the Unified Land Development Code include 100 feet on the rivers, 40 feet on the tributary, and 25 feet on tertiary streams and are enforced. The source water assessment plan includes 150 foot buffers and should apply to Armuchee Creek. For older developments, buildings are grandfathered in, but if new structures are built the buffers are again required.
- A stakeholder asked about the City of Rome's tree nursery, which applies wastewater to irrigate the nursery and provide water treatment. Tree planting could be incorporated into increasing buffers along streams. Encouraging buffers will require education and outreach for businesses, developers, to work in situations where there are no requirements.
- Possibility of incentives for developers was discussed, such as the possibility of opting out of the stormwater utility tax if buffers were left along the property, and if percentage of impervious surface was low. It would be a great incentive for developers etc if the stormwater utility tax could be waived. It was stated that different types of developments can encourage riparian buffers, depending on lot sizes, cluster development, and the use of septic field lines as possible greenspace. It is a balancing act. Education and outreach are important.
- Clarification was requested on comments received on the draft plans.
- Potential sources in Armuchee were discussed including the discrepancy between the field survey results and the stakeholders' statements, was agreed to change the listing for potential impact of the stream. The Farm Service Agency had provided disaster relief in the Armuchee Creek area. In this area EPD had challenged the listing of "small" for fecal contribution from agriculture in the area and was asking possibility of estimating cattle head counts. Agreed that there is a lot of unlimited access still, although NRCS has done a lot of work in Armuchee; it was the first EQIP watershed in the state, and developed rotational and prescribed grazing systems. There are still a few big operations with access to the stream. Agriculture would not be considered a 'large' source of impairment. Reminded that 79.9% of watershed is forest. Stakeholders agreed that contribution from agriculture sources could be considered moderate, with the mention of the area as a 319 grant projects priority area which entitles direct funding to the area.

- Discussed eligibility for EQIP in these areas.
- Considering stormwater management measures for education and outreach, the group discussed the recommended measures including showing the After the Storm video on local access channels and the library channel, as well as the DVD developed by Environmental Health to inform homeowners of the necessity of maintaining septic systems.
- A specific plan for education and outreach will be developed by June 30th and will include implementation by stakeholders, including local governments and the Coosa Valley RDC.

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 | STATE | ZIP | PHONE | E-MAIL |
|---|------------------------------------|--------------|-------|------------|----------------|--|
| Joe Cook, Executive Director, or Katie Owens, Program Coordinator, Coosa River Basin Initiative | 408 Broad St. | Rome | GA | 30161 | (706) 767-0497 | crbi@coosa.org keady@coosa.org |
| Sheri Teems Natural Resources Conservation Service | 1401 Dean Street | Rome | GA | 30161 | (706) 291-5651 | Sheri.teems@ga.usda.gov |
| Cindy Haygood, Coordinator Rolling Hills Regional Conservation and Development Council | P.O. Box 1550 | Dallas | GA | 30132 | (770) 505-4288 | Cindy.Haygood@ga.usda.gov |
| Keith Gilmer or John Loughridge Georgia Soil and Water Conservation Commission | 700 East 2nd Ave. Suite J | Rome | GA | 30161 | (706) 295-6131 | K_gilmer@gaswcc.org J_loughridge@gaswcc.org |
| Commissioner Jerry Jennings Floyd County Board of Commissioners | 8006 Blacks Bluff Road SW | Cave Springs | GA | 30124 | (770) 290-2665 | jjennings@berry.edu |
| Irwin Bagwell Bagwell Dairy | 100 Bagwell Rd | Cave Spring | GA | 30124 | (706) 777-8474 | bagwe@bellsouth.net |
| Leigh Ross, Director Rome-Floyd County Water Department | | Rome | GA | | (706) 236-4560 | wsd@romega.us |
| Eric Lindbergh, Director Rome-Floyd County Environmental Services | 607 Broad Street, P.O. Box 1433 | Rome | GA | 30162-1433 | (706) 236-4674 | elindbergh@romega.us |

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

GENERAL MEASURES APPLICABLE TO ALL PARAMETERS

| MEASURE | RESPONSIBILITY | DESCRIPTION | SOURCE OF FUNDING | STATUS | ENACTED/ IMPLEMENTED | EFFECTIVENESS (Very, Moderate, Weak) |
|---|--|---|--------------------------------------|----------|----------------------|--------------------------------------|
| Federal Clean Water Act, Section 305(b) and 303 (d) | USEPA, Georgia DNR EPD, Floyd County | The congressional objective of the Clean Water Act "is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 305 (the National Water Quality Inventory) requires states to report progress in restoring impaired waters to EPA on a Biennial basis. Section 303(d) requires states to identify 'impaired' waters, submit a list to EPA every two years, and develop TMDLs for these waters | Federal, Georgia | Enforced | 1972; amended 1977 | Very if enforced |
| Georgia Water Quality Control Act (OCGA 12-5-20) | Georgia Rules and Regulations for Water Quality Control, Chapter 391-3-6 | Law prohibiting discharge of excessive pollutants (sediments, nutrients, pesticides, animal wastes, etc.) into waters of the State in amounts harmful to public health, safety, or welfare, or to animals, birds, or aquatic life or the physical destruction of stream habitats. Law authorizing Georgia EPD to control water pollution, eliminate phosphate detergents, and regulate sludge disposal; to require permits for agricultural ground and surface water withdrawals; to prohibit situation of state waters by land disturbing activities and require undisturbed | Federal, Georgia, Rome- Floyd County | Enforced | 11/1964 | Very if enforced |

| | | | | | | |
|---|---|--|---------------------------|-----------|------|------------------|
| | | buffers along state waters; to require land-use plans that include controls to protect drinking water supply sources and wetlands; to require river basin management plans on a rotation schedule for all major river basins. | | | | |
| Georgia Planning Act. Part V Environmental planning measures. GA DNR EPD Rules for Environmental Planning Criteria (Ch. 391-3-16) | City of Rome- Floyd County | Wetland protection, river corridor protection, etc. Minimum criteria. Requires 100' buffer on protected rivers. Water supply watershed protection also requires 100' stream buffers. | General Fund | Enforced | 1989 | Moderate |
| (1996 Amendment) Federal Safe Water Drinking Act Source Water Assessment Program (SWAP) | City of Rome-Floyd County | Georgia Environmental Facilities Authority and EPD contracted with Coosa Valley RDC to coordinate implementation of the Source Water Assessment Program in Northwest Georgia. The surface water intakes in this contract were included in the Coosa and Tennessee Basins. Three milestones: Delineate watershed assessment areas and collection of water quality data for each intake in the contract. The third milestone was an inventory of potential pollution sources within the delineated assessment areas. Included establishment of Inner Management and Outer Management Zones. SWAP also established potential pollution sources to consider for each zone. | GEFA, EPD | Completed | 2003 | Moderate |
| Georgia Erosion and Sedimentation Control Act, Construction Permit, 2003 Amendment | City of Rome- Floyd County, Georgia DNR/EPD, Georgia Soil and Water Conservation Commission | City of Rome, Floyd County certified as Local Issuing Authority for land-disturbing activities. Requires Erosion and Sedimentation Control Plan incorporating best management practices plus "Qualified Personnel" Training and Certification Program adopted from Georgia Soil and Water | City of Rome-Floyd County | Enforced | 2003 | Very if enforced |

| | | | | | | |
|--|--|---|--|--|------|------|
| | | Conservation Commission. Certification of on-site "Qualified Personnel" to ensure proper design, construction, and maintenance of standard E & S control measures and storm water management practices | | | | |
| Erosion and Sedimentation Control Training and Certification | City of Rome- Floyd County, Georgia Soil and Water Conservation Commission, GA EPD, Rolling Hills RC&D | House Bill 285 requires state certification in Erosion and Sedimentation Control for anyone involved in the following activities: land development, design, review, permitting, construction, monitoring, inspection, or any land-disturbing activity in Georgia (Georgia Soil and Water Conservation Commission, 2005). The GSWCC also has updated requirements for E&SC plans to be submitted with each project. Three levels of certification are offered through the Rolling Hills Regional Conservation and Development Council (RC & D) for City of Rome- Floyd County. | Georgia Soil and Water Conservation Commission, GA EPD | Enforced, certification by end of 2006 | 2006 | Very |
| Construction Storm Water Discharge NPDES Permit | Georgia DNR/ EPD | General storm water permit for stand-alone construction sites; infrastructure permits; and common developments. Requires implementation of Erosion, Sedimentation and Pollution Control Plan plus monitoring of discharge for compliance with Georgia's in-stream water quality standards. | State | Enforced | | |
| Industrial Storm Water Discharge NPDES Permit | Georgia DNR/ EPD | General storm water discharge permit for manufacturing facilities; mining, oil, and gas operations; hazardous waste treatment; storage or disposal facilities; recycling centers; steam electric power generating facilities; transportation facilities; domestic sewage or sewage treatment. Requires implementation of Storm Water Pollution Prevention Program. May require storm | State | Enforced | | |

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| | | water monitoring program targeting discharges into/near 303 (d) listed waters. | | | | |
| Phase II NPDES Storm Water Permit for Small MS4 | Georgia DNR & EPD, City of Rome- Floyd County | Requires local jurisdictions to develop a comprehensive Storm Water Management Program (SWPP) to include 1. Public Education and Outreach; 2. Public Participation and Involvement; 3. Illicit Discharge Detection and Elimination; 4. Construction Site Storm Water Runoff Control; 5. Post-Construction Storm Water Management in New Development and Redevelopment; 6. Pollution Prevention and Good Housekeeping related to municipal operations, reporting, monitoring and program implementation. | City of Rome-Floyd County | Enforced | 2005 | Very |
| Notice of Intent coverage of small MS4 under NPDES Phase II general permit | City of Rome- Floyd County | NOI approved by EPD in 2005. Includes Best Management Practices to reduce non-point source pollution in the county such as promoting River Clean-up Days, Sponsoring one River Clean-up per year, Promoting Adopt-A-Stream with certification and recertification, and establishment of 10 certified Adopt-A-Stream work groups. | General Fund | Enforced | 2005 | Very |
| Sanitary Sewer Maintenance Program | City of Rome- Floyd County | Sanitary Sewer system inventory and inspection (mapping, television inspections); infiltration and inflow identification and reduction (flow monitoring, smoke testing); sewer line rehabilitation (pipe bursting, relining, cleaning) and manhole rehabilitation. | City of Rome-Floyd County | Enforced | Ongoing | |
| EPA Section 319 Non-point Source Implementation Grants | Georgia Department of Agriculture/ Georgia Environmental Protection Division | Funds distributed through a competitive process to public agencies, regional development centers, state colleges and universities, and state agencies. | Federal, State | | Yearly | Varies with BMP or project |
| Georgia Best Management Practices | Georgia DNR/EPD | Informs those involved in the agriculture business of effective practices to minimize non-point sources of pollution | Georgia | | | Varies with BMP |

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|---|---|---|---|---------|---------------|--------------------------|
| Farm Bill 2002 Forestland Enhancement Program | Georgia Forestry Commission | The Forestry Commission has implemented best management practices on its lands to reduce sedimentation and erosion from silviculture practices. The Georgia Forestry Commission also provides education, technical and financial assistance through cost-share programs to private landowners especially in the Forestland Enhancement Program, a part of the 2002 Farm Bill. | Federal, State | | Ongoing | Very |
| Federal Farm Bill 2002 | United States Department of Agriculture/ Natural Resources Conservation Service | Enhances long-term quality of our environment and conservation of our natural resources. This bill provides several opportunities for receiving grants to improve water quality. | Federal Cost-Share and Incentive Programs | | 2002 | Varies with BMP applied. |
| River Clean-ups | Rome-Floyd County | Two annual stream clean-ups. The Spring cleanup-with Georgia Power's Plant Hammond- done at four sites: Heritage Park in Rome, Mayo's Bar Lock and Dam, Rushing Branch, and Plant Hammond. There is also stream clean-up activity on the Coosa in the fall, yearly, in conjunction with Rome-Floyd County and the DNR through Rivers Alive. | General Fund | Ongoing | 2000 | Very |
| Adopt-A-Stream certification | Rome- Floyd County Environmental Planning | Distributed flyers to interested groups, individuals, conducted workshops to certify or recertify for adopt-a-stream activities | General Fund | Ongoing | 2005, Ongoing | Very |

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|--|--|--|-------------------|--|---------|---|
| Acquisition and Preservation of Riparian Buffers | Rome- Floyd County Environmental Planning | Urban redevelopment along Coosa River within City limits | | | Ongoing | Very |
| Georgia's Best Management Practices | Georgia Forestry Commission (matters involving enforcement are generally referred to GA EPD) | GFC program to inform landowners, foresters, timber buyers, loggers site preparation and reforestation contractors and others involved with silvicultural operations about commonsense, economical effective practices to minimize nonpoint source and thermal pollution. GFC encourages and monitors compliance and conducts a complaint resolution program. | | | | >75% when properly applied to site preparation and harvesting activities. |
| Georgia Forestry Commission Monthly BMP Assurance Examination | Georgia Forestry Commission (matters involving enforcement are generally referred to GA EPD) | In an effort to document "reasonable assurance" that water quality will be proactively protected during regular ongoing silvicultural operations, the GCF will offer a monthly BMP assurance examination of active sites. All active of ongoing sites will be identified either through monthly air patrol flights, courthouse records, riding the roads, notification or by landowners. Sites located within watersheds of specific biota (sediment) impaired streams will be given a higher priority to identify and conduct examinations. | Federal and State | | | |
| Memo to the Field: Application of BMPs to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast (Silviculture) | EPA/ US Army Corps of Engineers - (cases normally referred to GFC to make initial determination) | Identifies certain bottomland hardwood wetlands that should be subject to permitting if converting to pine plantations. | State | | | |

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| Federal Farm Bill (Swampbuster, Ag) | US Department of Agriculture Natural Resource Conservation Service | Prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture | Federal | | | |
| Partners for Fish and Wildlife | US Fish and Wildlife Services | This is a proactive, voluntary program that works with private landowners to restore fish and wildlife habitats on their land. The projects have several different focuses, but for the purpose of water quality the projects focus on stream and riparian restoration and restoration of rare species habitat. | Federal variable cost share | | | Effectiveness will vary with the specific application and must be individually determined. |
| Farm Bill 2002 | United States Department of Agriculture / National Resources Conservation Services | Enhances long-term quality of our environment and conservation of our natural resources. This bill provides several opportunities for receiving grants to improve water quality. | Federal Cost-Share and Incentive Programs. | | | Effectiveness will vary with the specific application and must be individually determined. |
| Environmental Quality Incentives Program (EQIP) | Natural Resources Conservation Services | Voluntary program that provides technical and cost share assistance for protection of ground and surface water, erosion control, air quality, wildlife habitat, and plant health. Specifically in this watershed, small horse farms along the Coosa River have become eligible for the first time in 2006 for the EQIP program. Some use of the EQIP program is expected along the Coosa River in the future. The Bridges Brothers Farm is also located in this area off the Coosa River. This farm has received some funding through NCRS for conservation and best management practices. | Federal 50% cost share with possible additional incentive payments | | | Effectiveness will vary with the specific application and must be individually determined. |
| Special Forestry/Wildlife Environmental Quality Incentives Program (EQIP) | Natural Resources Conservation Services | Special funds allocated out of the EQIP program that will address forest road erosion/water quality, plant health, and wildlife habitat. This program has a separate ranking for rewarding money from | Federal 50% cost share with possible additional incentive payments | | | Effectiveness will vary with the specific application and must be individually determined. |

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|---|---|--|--|--|--|--|
| | | the regular EQIP program. | | | | |
| Wildlife Habitat Incentives Program (WHIP) | Natural Resources Conservation Services | Provides technical and cost share assistance for the creation of high quality wildlife habitat. Habitats of special concern include riparian areas and endangered and threatened species habitat. | Federal 75% of cost of the installation of practice provided | | | Effectiveness will vary with the specific application and must be individually determined. |
| Wetlands Reserve Program (WRP) | Natural Resources Conservation Services | Provides technical and financial assistance to landowners to enhance degraded wetlands degraded by farming or draining. There are three options with WRP to receive funds that have differing time agreements and easements resulting in different cost share. In all programs participants control access to the land, may lease or use land for hunting, fishing, and other passive recreational activities. Compatible uses are allowed as long as they do not degrade the wetland. | Federal (Farm Bill 2002) Cost Share 1. Permanent Easement :Pays appraised value of land (\$2,000/ acre cap) and 100% of costs of restoration. 2. 30-Year Easement: Pays 75% of appraised value of land and 75% of restoration costs. 3. Restoration Cost Share Agreement: Pays 75% of restoration costs, no easement on the property. | | | Effectiveness will vary with the specific application and must be individually determined. |
| Chapter 40-13-8 Animal Manure Handlers Rules of Georgia Department of Agriculture Animal Industry Division | Georgia Department of Agriculture | This requires that persons engaged in removing animal manure from livestock/poultry production areas, transporting animal manure on public roadways, or depositing animal manure to a premise other than its point of origin obtain a permit and follow rules to control animal disease, and outlines regulations for transportation, equipment and storage. | State | | | Effectiveness will vary with the specific application and must be individually determined. |

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|--|--|---|--|------------|---------|--------------------------|
| Farm Bill 2002 Forestland Enhancement Program | Georgia Forestry Commission | The Forestry Commission has implemented best management practices on its lands to reduce sedimentation and erosion from silviculture practices. The Georgia Forestry Commission also provides education, technical and financial assistance through cost-share programs to private landowners especially in the Forestland Enhancement Program, a part of the 2002 Farm Bill. | Federal, State | | Ongoing | Very |
| Federal Farm Bill (Swampbuster Ag) | United States Department of Agriculture / National Resources Conservation Services | Prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture. | Federal | | | |
| Conservation Reserve Program (CRP) | Natural Resources Conservation Services / USDA Farm Services Agency | Provides technical assistance, rental payments and cost share funding to address specific natural resource concerns including: protection of ground and surface waters, soil erosion and wildlife habitat. Eligible practices include tree planting, grassed waterways, wildlife habitat buffers, and shallow water area for wildlife and filter strips. Specifically in this watershed, Berry College and USDA Farm Service Agency have partnered using the Conservation Reserve Program to develop an extensive project to fence cattle out of streams on Berry College property. | Federal, State, landowner | Cost-share | Ongoing | Varies |
| Continuous Conservation Reserve Program (CCRP) | Natural Resources Conservation Service | Conservation cost-share for best management practices such as fencing livestock out of streams; provides up to a 90-10% cost-share | Federal Annual rental payment for land taken out of production and 50% cost share for practice installation. | Cost-share | Ongoing | Varies with BMP applied. |

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|---|--|---|---|------------------|---------|--|
| Conservation of Private Grazing Land Program | United States Department of Agriculture / National Resources Conservation Services | This technical assistance will offer opportunities for: better grazing land management; projects for improving water quality include: protecting soil from erosive wind and water; conserving water; providing habitat for wildlife; sustaining forage and grazing plants. | Federal (Farm Bill 2002) This is not a Cost-Share Program. | | | Varies with BMP applied. |
| Conservation Security Program (CSP) | Natural Resources Conservation Services | This is the first program that rewards farmers and ranchers for high levels of environmental stewardship. Producers on cropland, orchards, vineyards, pasture and range may apply for CSP regardless of size, type of operation, or crops produced. Land in other cost share programs is not eligible. CSP will first be offered in watersheds with greatest potential for improving water quality, soil quality and grazing land condition. In 2005, the four watersheds of focus will be the Ichawaynochaway, Kinchagoonee-Muckalee, Middle Flint, and Upper Ochlockonee. An enhancement example is to install a riparian buffer, | Federal (Farm Bill 2002) Cost Share There is three tiers of involvement, which result in different expectations and cost share opportunities. | | | Effectiveness will vary with the specific application and must be individually determined. |
| Rules and regulations for onsite wastewater management (Septic system permitting) | Rome- Floyd County Department of Public Health | Regulates through permits and inspections of on-site sewage management systems; requires plumbers and other maintenance operators to submit monthly logs of pump-outs and maintenance done to systems | Rome- Floyd County | Enforced | Ongoing | |
| Stormwater Best Management Practices | Rome- Floyd County | Continue to implement recommended Best Management Practices to address Biota (Sediment)/ Habitat and other pollutants as detailed in Bartow County's NOI Phase II MS4 Stormwater Management Plan to include 1. Public Education and Outreach; 2. Public Participation and Involvement; 3. Illicit Discharge Detection and | General Fund | Recommended 2006 | | May vary |

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|---|--|---|---|------------------|--|----------|
| | | Elimination; 4. Construction Site Storm Water Runoff Control; 5. Post-Construction Storm Water Management in New Development and Redevelopment; 6. Pollution Prevention and Good Housekeeping related to municipal operations, reporting, monitoring and program implementation | | | | |
| Stream Buffer Installation and Maintenance Incentives | Rome- Floyd County | Explore incentives for developers (such as density variances) who meet or exceed stream buffer requirements in developments who agree to maintain buffers for specified period; similar incentives for homeowners | | Recommended 2006 | | May vary |
| District-wide Septic System Maintenance | Rome- Floyd County Environmental Health, Northwest Georgia Health District | Expand ongoing education and outreach to promote proper maintenance of private septic systems using DVD program | Homeowners with existing septic systems | Recommended 2006 | | |

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 | |
| Fecal Coliform | Rome WPCP, Permit # GA0024112 Rome Coosa WPCP, Permit # GA0024341 | Current | Ongoing | | Ongoing water quality monitoring of discharge |
| Fecal Coliform | EPD, USGS | Current | 2005- 2006 | | Ongoing monitoring for listing, delisting of impaired streams on five-year cycle |
| Flow & Temperature; Continuous water quality monitoring; Water quality sampling; Chlorophyll a sampling; Wastewater treatment facility sampling (BOD, DO, Temp, TKN, NH ₃ , NO ₂ - NO ₃ , total P, ortho-phosphate, TOC, conductivity, and Ph); DO and temperature depth profiles; and Specialized studies | EPD, USGS | Current | 2005-2006 | | Coosa River Basin Modeling study |

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 |
|--|--|---|----------------------|
| Coosa River Basin Initiative with Adopt-A-Stream | CRBI works with Adopt-A-Stream to host Chemical Water Monitoring Classes and to certify volunteer water monitors, as well as to do stream clean-ups | Volunteers, CRBI members | Ongoing |
| Rome-Floyd County | Two Water Education for Teachers workshops, in 2004 and in 2005, to train teachers on water quality education to be integrated into the curriculum. Three schools have done so, including Armuchee Elementary, West End Elementary, and Berry Elementary. The goal is to continue to train teachers so that more schools integrate the water quality education into their curriculums. | Teachers, students | June 24-30, 2006 |
| CRBI, Rome- Floyd County Environmental Planning | Hands-on learning activities using the Water Drop suit, non-point source pollution and pollution prevention | Elementary school students | Available on request |
| Rome- Floyd County Environmental Planning | Promote River Clean-up Days: Flyers, Public Announcements to promote annual fall and spring river clean-up events | General Public | 2005, Ongoing |
| | Stormwater Management Education and Outreach | | |
| Rome- Floyd County | <ul style="list-style-type: none"> Complete Center for Watershed Protection's <u>Codes and Ordinances Worksheet</u> | General Public | 2006 |
| Rome- Floyd County | <ul style="list-style-type: none"> Consider Adopting 22 Model Development Principles as discussed in <u>Better Site Design: A Handbook for Changing Development Rules in Your Community</u> where applicable | General Public | 2007-2008 |
| Rome- Floyd County | <ul style="list-style-type: none"> Implement education of community using After the Storm non-point source pollution video presentation on public access channels | General Public | Ongoing |
| Coosa Valley RDC, stakeholders | <ul style="list-style-type: none"> Reconvene Stormwater Working Group to include all counties, municipalities in Coosa Valley RDC area | All counties, municipalities in Coosa Valley RDC area | 2006 |
| Coosa Valley RDC, stakeholders | <ul style="list-style-type: none"> Will investigate 319 h non-point source pollution grant possibilities regarding funding for development of stormwater management training for municipal employees | All counties, municipalities in Coosa Valley RDC area | 2006 |

| | | | |
|---|---|---|---|
| <p>Rome- Floyd County USDA NRCS/FSA, County Extension Service Coosa Valley RDC, stakeholders</p> | <p>Riparian Buffer Education and Outreach</p> <ul style="list-style-type: none"> • Consider adopting relevant principles as detailed in 22 Model Development Principles as discussed in <u>Better Site Design: A Handbook for Changing Development Rules in Your Community</u> • Continue education and outreach to local communities through USDA NRCS/FSA, County Extension Service • Will investigate 319 h non-point source pollution grant possibilities regarding purchasing and distribution of education materials encouraging homeowners to develop, maintain riparian buffers | <p>General Public General Public, Homeowners Homeowners</p> | <p>2007-2008 Ongoing 2006</p> |
| <p>Coosa Valley RDC, stakeholders</p> | <p>Investigate Funding Sources</p> <ul style="list-style-type: none"> • Will investigate 319 grant possibilities regarding development of a project to survey schools in Coosa Valley RDC service area to determine interest in and feasibility of water quality education, specifically on causes of non-point source pollution, importance of riparian buffers, and stormwater pollution prevention | <p>General Public</p> | <p>2006</p> |

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.

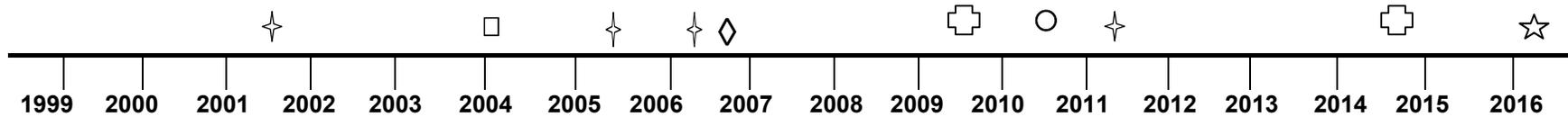
Table 8. MILESTONES

| MANAGEMENT MEASURE | RESPONSIBLE ORGANIZATIONS | STATUS | | COMMENT |
|---|--|-------------|---------------|--|
| | | PROPOSED | INSTALLED | |
| Promote River Clean-up Days | Rome-Floyd County Environmental Planning | 2005 | 2005- ongoing | |
| Sponsor one river clean-up/year | | 2005 | 2005- ongoing | Two clean-ups done per year |
| Promote, perform Adopt-A-Stream certification classes | Rome-Floyd County Environmental Planning | 2005 | 2005- ongoing | 25 people trained in 2005, 20 sites monitored |
| Establish 10 certified Adopt-a-Stream work groups | Rome-Floyd County Environmental Planning | 2005 | 2005- ongoing | 33 teachers trained, 18 from Floyd County, for 5 schools |
| Project WET Classroom Training | Rome-Floyd County Environmental Planning | 2005 | 2005- ongoing | |
| Stormwater Management Education and Outreach | | | | |
| <ul style="list-style-type: none"> • Complete Center for Watershed Protection's <u>Codes and Ordinances Worksheet</u> | Rome-Floyd County | Summer 2006 | | |
| <ul style="list-style-type: none"> • Consider Adopting 22 Model Development Principles as discussed in <u>Better Site Design: A Handbook for Changing Development Rules in Your Community</u> where applicable | Rome-Floyd County | 2007-2008 | | |
| <ul style="list-style-type: none"> • Implement education of community using After the Storm non-point source pollution video presentation on public access channels | Rome-Floyd County | Ongoing | | |
| <ul style="list-style-type: none"> • Reconvene Stormwater Working Group to include all counties, municipalities in Coosa Valley RDC area | Rome-Floyd County | 2006 | | |
| <ul style="list-style-type: none"> • Will investigate 319 h non-point source | | 2006 | | |

| | | | | |
|--|---|---|--|--|
| <p>pollution grant possibilities regarding funding for development of stormwater management training for municipal employees</p> | <p>Rome-Floyd County</p> | | | <p>Application deadline May 31, 2006. Yearly deadline.</p> |
| <p>Septic System Maintenance Education and Outreach</p> <ul style="list-style-type: none"> • Investigate expansion of district-wide outreach component to homeowners to include those with existing systems • Will investigate 319 h non-point source pollution grant possibilities regarding septic system maintenance and repair project | <p>Coosa Valley RDC, stakeholders</p> <p>Coosa Valley RDC, stakeholders</p> | <p>2006</p> <p>2006</p> | | <p>Application deadline May 31, 2006. Yearly deadline.</p> |
| <p>Riparian Buffer Education and Outreach</p> <ul style="list-style-type: none"> • Consider adopting relevant principles as detailed in 22 Model Development Principles as discussed in <u>Better Site Design: A Handbook for Changing Development Rules in Your Community</u> • Continue education and outreach to local communities through USDA NRCS/FSA, County Extension Service • Will investigate 319 h non-point source pollution grant possibilities regarding purchasing and distribution of education materials encouraging homeowners to develop, maintain riparian buffers | <p>Rome-Floyd County</p> <p>USDA NRCS/FSA, County Extension Service</p> <p>Coosa Valley RDC, stakeholders</p> | <p>2007-2008</p> <p>Ongoing</p> <p>2006</p> | | <p>Application deadline May 31, 2006. Yearly deadline.</p> |
| <p>Investigate Funding Sources</p> <p>Will investigate 319 grant possibilities regarding development of a project to survey schools in Coosa Valley RDC service area to determine interest in and feasibility of water quality education, specifically on causes of non-point source pollution, importance of riparian buffers, and stormwater pollution prevention</p> | <p>Coosa Valley RDC, stakeholders</p> | <p>2006</p> | | <p>Application deadline May 31, 2006. Yearly deadline.</p> |

PROJECTED ATTAINMENT DATE

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



- Scheduled EPD Basin Group Monitoring ✦
- TMDL Completed □
- Revised TMDL Implementation Plan Accepted ◇
- Plan Status Evaluation Report ✚
- Plan Update or Revision, if Necessary ○
- Project Attainment for Plans Prepared in 2006 ☆

| | | | |
|-------------------------------|---|------------------|--------------|
| Prepared By: | <u>Julianne Meadows</u> | | |
| Agency: | <u>Coosa Valley Regional Development Center</u> | | |
| Address: | <u>P.O. Box 1793</u> | | |
| City: | <u>Rome</u> | ST: | <u>GA</u> |
| | | ZIP: | <u>30162</u> |
| E-mail: | <u>jmeadows@cvrdc.org</u> | | |
| Date Submitted to EPD: | <u>04/22/06</u> | Revision: | <u>01</u> |

amended.

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 |
|---|------------------------------------|--------------|-------|------------|----------------|--|
| Joe Cook, Executive Director, or Katie Owens, Program Coordinator, Coosa River Basin Initiative | 408 Broad St. | Rome | GA | 30161 | (706) 767-0497 | crbi@coosa.org keady@coosa.org |
| Sheri Teems Natural Resources Conservation Service | 1401 Dean Street | Rome | GA | 30161 | (706) 291-5651 | Sheri.teems@ga.usda.gov |
| Cindy Haygood, Coordinator Rolling Hills Regional Conservation and Development Council | P.O. Box 1550 | Dallas | GA | 30132 | (770) 505-4288 | Cindy.Haygood@ga.usda.gov |
| Keith Gilmer or John Loughridge Georgia Soil and Water Conservation Commission | 700 East 2nd Ave. Suite J | Rome | GA | 30161 | (706) 295-6131 | K_gilmer@gaswcc.org J_loughridge@gaswcc.org |
| Commissioner Jerry Jennings Floyd County Board of Commissioners | 8006 Blacks Bluff Road SW | Cave Springs | GA | 30124 | (770) 290-2665 | jjennings@berry.edu |
| Irwin Bagwell Bagwell Dairy | 100 Bagwell Rd | Cave Spring | GA | 30124 | (706) 777-8474 | bagwe@bellsouth.net |
| Leigh Ross, Director Rome-Floyd County Water Department | | Rome | GA | | (706) 236-4560 | wsd@romeqa.us |
| Eric Lindbergh, Director Rome-Floyd County Environmental Services | 607 Broad Street, P.O. Box 1433 | Rome | GA | 30162-1433 | (706) 236-4674 | elindbergh@romeqa.us |

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North Georgia Regional Development Center. (2005). *Northwest Georgia Regional Water Resources Partnership: Public Water and Wastewater Demand with Projections to the Year 2050.*

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.

031510501 Coosa River Field Survey Photographs and Watershed Map

Field Survey Photographs

1. 0315010501 Coosa River: Horseleg Creek Rd beyond Featherston Rd., cattle pasture runoff to creek.



2. 0315010501 Coosa River: Ausburn Rd, geese walking through pasture.



3. 0315010501 Coosa River: Livingston Rd., extensive beaver activity, ponds within 200 feet of stream.



4. 0315010501 Coosa River: Turner's Bend Rd. at dead end, property's hunting rights leased.



5. 0315010501 Coosa River: Second Avenue Bridge downstream from Bridgepoint Plaza, area drains impervious surfaces and recreational areas.



6. 0315010501 Coosa River: Horseleg Creek Road- new and existing residential development.



7. 0315010501 Coosa River: Second Avenue Bridge, downtown Rome, drains urban impervious surfaces.



8. 0315010501 Beech Creek: Mays Bridge Rd., area drains pastures, farms, and rural residential areas.



9. 0315010501 Beech Creek: Hwy 20 Bridge Culvert, creek accessible to wildlife.



10. 0315010501 Webb Creek: Black's Bluff Road Crossing- pasture drains to creek.



11. 0315010501 Webb Creek: Black's Bluff Road Crossing- Stream accessible to wildlife.



031510501 Coosa River/ Beech Creek

Watershed Map

