# Hardy Mill and Withlacoochee Watershed

*Berrien and Tift Counties*
*City of Enigma and Nashville*
*HUC 10 # 0311020301*
*TMDL Implementation Plan*

The Hardy Mill and Withlacoochee Watershed is located within the Hydrologic Unit Code (HUC) # 0311020301 and includes Berrien and Tift Counties as well as the cities of Enigma and Nashville. Within this watershed are Hardy Mill Creek and the Withlacoochee River. The segment of Hardy Mill Creek from U.S. Hwy 319, S. of Tifton to the Withlacoochee River, and the segment of the Withlacoochee River from Hardy Mill Creek to New River, are both listed on the 303(d)/305(b) list for low dissolved oxygen (DO). Since these segments of Hardy Mill Creek and the Withlacoochee River are located in primarily forested or agricultural lands, the main cause for the low DO can be contributed to naturally occurring causes, organic matter in the streams, and run-off causing nutrient build-up. Other sources that may cause the low DO are animal waste, failing septic tanks, and improper methods of trash collection and disposal. South Georgia has also been under drought conditions for the past four to six years causing extremely low flow levels in Hardy Mill Creek and the Withlacoochee River.

In 2001, a Total Maximum Daily Load (TMDL) was prepared for both Hardy Mill Creek and the Withlacoochee River. A TMDL outlines the amount of pollutants a stream can have and still be classified as healthy. For Hardy Mill Creek, the TMDL states that 17 miles are impaired and partially supporting the use classification of fishing. It also states that a 24% load reduction is required for Hardy Mill Creek to fully support the fishing classification. The TMDL states, for the Withlacoochee River, that 17 miles are impaired and not supporting the use classification of fishing. It also states that a 27% load reduction is required for the Withlacoochee River to fully support the fishing classification.

When developing these plans, professional organizations, such as the University of Georgia Extension Service and the Natural Resource Conservation Service (NRCS) were used to gather information about the stream and identify stakeholders. Local residents were used to gather information about the stream segment since stakeholder input was a critical element in developing this plan. A survey form was designed and distributed so that stakeholders had the option to participate in addressing their concerns privately.

The action plan consists of voluntary practices businesses and individuals can do at home and at work to reduce the amount of pollutants coming from nonpoint sources. The management measures are measures that are currently in place such as land development regulations as well as best management practices (BMPs) for agriculture and forestry. These management measures will ensure proper development of land around both Hardy Mill Creek and the Withlacoochee River, thus controlling the amount of pollutants entering the streams. A few examples of the regulatory measures are Protected River Corridor Plan and Local Wetlands Policy Ordinances and some voluntary measures are the Conservation Reserve Program (CRP) and Nutrient Management Programs.

One of the key elements of the implementation plans is the monitoring plan, in particular, water quality testing. It is important to continue monitoring Hardy Mill Creek and the Withlacoochee River to determine if the water quality is improving and the management measures are working. The water quality testing will also determine if the action plans are working or needs to be revised. Currently, there are monitoring plans being done at National Environmentally Sound Production Agriculture Laboratory (NESPAL). NESPAL studies streams in the entire Suwannee Basin, however, the most extensive monitoring programs and studies are on the Little River watershed. This work is in conjunction with the USDA-ARS Southeast Watershed Laboratory.

"TMDL Implementation Plans are platforms for establishing a course of actions to restore the quality of impaired water bodies in a watershed. They are intended as a continuing process that may be revised as new conditions and information warrant. Procedures will be developed to track and evaluate the implementation of the management practices and activities identified in the plans. Once restored, appropriate management practices and activities will be continued to maintain the water bodies."

The EPD has set the final project date as 2012 and we feel that the 10 years from the acceptance of the TMDL Implementation Plan is an appropriate timeframe to achieve and maintain a healthier water quality for the Suwannee River Basin.

STATE OF GEORGIA

# TMDL IMPLEMENTATION PLAN
## WATERSHED APPROACH

### *Suwannee River Basin*

Local Watershed Governments

South Georgia RDC
Berrien County
Tift County
City of Nashville
City of Enigma

TMDL Implementation Plans are platforms for establishing a course of actions to restore the quality of impaired water bodies in a watershed. They are intended as a continuing process that may be revised as new conditions and information warrant. Procedures will be developed to track and evaluate the implementation of the management practices and activities identified in the plans. Once restored, appropriate management practices and activities will be continued to maintain the water bodies. **With input from appropriate stakeholder groups, a TMDL Implementation Plan has been developed for a cluster of impaired streams and the corresponding pollutants.** The impaired streams are located in the same sub-basin identified by a HUC10 code (Figure 1).

This Implementation Plan addresses an action plan, education/outreach activities, stakeholders, pollutant sources, and potential funding sources affecting the sub-basin. In addition, the Plan describes (a) regulatory and voluntary practices/control actions (*management measures*) to reduce target pollutants, (b) milestone schedules to show the development of the management measures (*measurable milestones*), (c) a monitoring plan to determine the efficiency of the management measures and measurable milestones, and (d) criteria to determine whether substantial progress is being made towards reducing pollutants in impaired water bodies. The overall goal of the Plan is to define a set of actions that will help achieve water quality standards in the state of Georgia. Following this section is information regarding individual streams.

**Hardy Mill and Withlacoochee Watershed**
HUC10# 0311020301

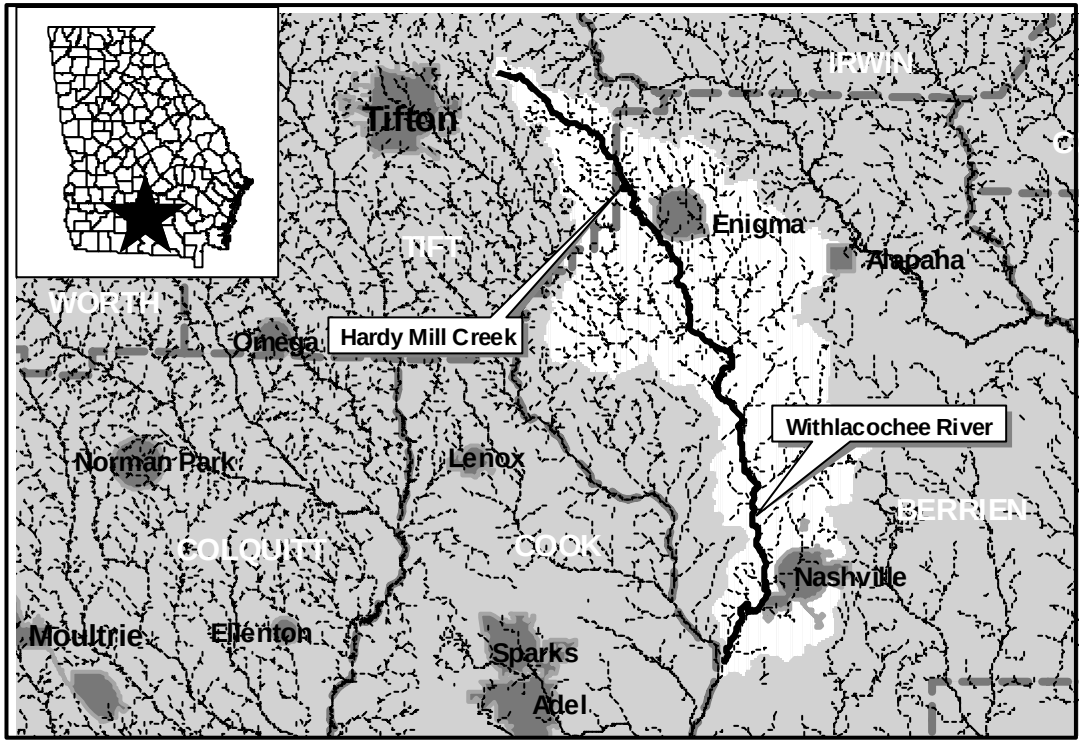



**FIGURE 1**

| Impaired Water body* | Impaired Stream Location | Impairment |
|---|---|---|
| 1. Hardy Mill Creek | U.S. Hwy. 319, S. of Tifton to Withlacoochee River | Low DO |
| 2. Withlacoochee River | Hardy Mill Creek to New River | Low DO (The EPD has prepared a separate Implementation Plan for FCG Hg) |

*These Water body Numbers are referenced throughout the Implementation Plan.

# Action Plan for Hardy Mill and Withlacoochee River

Hardy Mill and Withlacoochee Watershed
HUC10# 0311020301

| POLLUTANT: | SOURCE: | EFFECT: | WHAT CAN I DO? At Home: Community, School | WHAT CAN I DO? At Work: Business, Government |
|---|---|---|---|---|
| X Dissolved Oxygen (DO)<br>__ Fecal Coliform (FC)<br>__ Sediment<br>__ Metals<br>X Fish Consumption Guidelines (FCG)<br>__ Other (Please List) | __ Industrial<br>X Urban<br>X Agriculture<br>X Forestry<br>X Residential<br>X Other (Please List)<br>Low flow stream conditions | X Habitat<br>X Recreation<br>__ Drinking Water<br>X Aesthetics<br>__ Other (Please List) | **Lawn and Garden Care:**<br>Ways to reduce the water demands on landscape:<br>• Reduce the size of watered areas in your yard; i.e. Use pine straw or beds of drought-tolerant plants such as English Ivy, Liriope, Blue Rug or Prince of Wales<br>• Place 3-5 inches of mulch on the soil surface around flowers, shrubs, and trees to reduce evaporative water loss from the soil<br>• Place 2-3 sheets thick of newspaper on the soil surface, moisten it, and then place the mulch on top. The newspaper will add a barrier to prevent water loss and will also enrich the soil when it decomposes<br>• Target irrigation to plants that show signs of moisture stress<br>• Use a water hose instead of a sprinkler to water plants that need water<br>• Sweep areas clean instead of washing them off with a water hose<br>• Dispose of pet waste to minimize runoff<br>**Household Cleaners:**<br>• Follow storage and disposal instructions of household chemicals which are usually located on the back of the product<br>• Follow directions on usage of chemicals<br>• Control and cleanup spills according to instruction of manufacturer<br>**Automotive Care:**<br>• Regular maintenance, check for leaks and the proper disposal of fluids at approved locations<br>**Trash Pickup:**<br>• Visually inspect containers and report damage or leaks<br>• Keep container secure at all times<br>• Ensure that trash is picked up on a regular schedule<br>**Spill/Discharge Control and Cleanup:**<br>• Control and cleanup spills according to instruction of manufacturer<br>**Miscellaneous:**<br>• Repair any faucets / pipes that may leak<br>**Conservation:**<br>• Find alternatives to using less water | **Landscaping:**<br>Ensure that contracted lawn services adhere to:<br>• Reduce the size of watered areas in your yard; i.e. Use pine straw or beds of drought-tolerant plants such as English Ivy, Liriope, Blue Rug or Prince of Wales<br>• Select appropriate plants for a water-use landscape; i.e. Turf grass and ornamental plants: certain ones are drought tolerant while others require regular irrigation<br>• Follow directions on usage of chemical and fertilizers<br>**Agricultural:**<br>• Use Best Management Practices (BMP's) for agricultural such as: tree or grass buffers, cover crops, contour farming and terraces, strip and/or no till, nutrient management, pest management, irrigation water management, pasture management, and agriculture waste management<br>**Forestry:**<br>• Use Best Management Practices (BMP's) for forestry to minimize erosion and stream sedimentation from forestry practices such as: timber harvesting, chemical treatments, controlled burning, and streamside management<br>**Commercial Chemical Cleaners:**<br>• Follow storage and disposal instructions of commercial chemicals<br>• Correct usage of chemicals<br>**Automotive Care:**<br>• Regular maintenance of fleet vehicles, check for leaks and the proper disposal of fluids at approved locations<br>**Sewer Management:**<br>• Routine visual inspections and reports leaks if any noted<br>**Trash Pickup:**<br>• Visually inspect containers and report damage or leaks<br>• Keep container secure at all times<br>• Ensure that trash is picked up on a regular schedule<br>**Conservation:**<br>• Find alternatives to using less water |

# INFORMATION/EDUCATION/OUTREACH ACTIVITIES

An education/outreach component will be used to enhance public understanding of and participation in implementing the TMDL Implementation Plan.
List of all previous and planned information/education/outreach activities.

| Responsible Organization Or Entity | Description | Impacted Waterbodies* | Target Audience | Anticipated Dates (MM/YY) |
|---|---|---|---|---|
| US Fish and Wildlife | The U.S. Fish and Wildlife Service is the principal Federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people. The US Fish and Wildlife has numerous activities that relate to water quality, fish, sedimentation and many more that are available on their website. | 1, 2 | Everyone | Current |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) | Research and education efforts to build a better environment for agriculture and rural America | 1, 2 | Agriculture and rural America | Current |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) | 319 (h) grant to study dissolved oxygen | 1, 2 | River Basins in the Southern Coastal Plain, Georgia | Grant applied |
| Upper Suwannee River Watershed Initiative (USRWI) | Non-Point organizations charged with education / outreach / water related activities within the Suwannee River Basin | 1, 2 | Established organizations / clubs / citizens of the Suwannee River Basin | Will depend on group interests and funding sources |
| Seven Rivers Resource Conservation & Development | Non-Profit agency who's goal for environmental protection is to improve the water quality and quantity and preservation of the natural resources in the region | 1, 2 | Local government officials / citizens / agricultural organizations | Current |
| South Georgia RDC | The SGRDC offers technical assistance with development regulations | 1, 2 | Local government officials / Developers | In-progress |
| South Georgia RDC | To help assist with educational outreach to our local governmental jurisdictions, i.e. City, county and interested individuals | 1, 2 | Local government officials / citizens | Current |
| Georgia Adopt-A-Stream | The SGRDC would like to see each school district team up with Georgia Adopt-A-Stream and commit to adopting a stream or streams within their county | 1, 2 | Established organizations / clubs and/or those interested | Will depend on group interests and funding sources |
| South Georgia RDC / Berrien and Tift County School Districts | The SGRDC would help Berrien and Tift County School Districts target a group or club of interested students, educate them on the water issues that they are faced with, and to encourage them to participate in water monitoring | 1, 2 | Established organizations / clubs and/or those interested | Will depend on group interests and funding sources |
| South Georgia RDC / Georgia Department of Community Affairs | Facilitate and educate outreach on water resource related activities, i.e. Water Resource Tool Kit and Water First Program | 1, 2 | Local government officials / citizens | Current |

| | | | | |
|---|---|---|---|---|
| University of Georgia 4-H Club, Berrien and Tift Counties | The mission of Georgia 4-H is to assist youth in acquiring knowledge, developing life skills, and forming attitudes that will enable them to become self-directing, productive and contributing members of society. This mission is accomplished, through "hands on" learning experiences, focused on agricultural and environmental issues, agriculture awareness, leadership, communication skills, foods and nutrition, health, energy conservation, and citizenship. | 1, 2 | Students and youth | Current |
| Georgia Cooperative Extension Services, Berrien and Tift Counties | To provide timely, unbiased research-based information to the public as it relates to agricultural and family consumer science. To improve the quality of the life for all communities in the State of Georgia. The County Extension Agent's duty is to deliver new information and technology from the University of Georgia's Coastal Plain Research Center to the community. | 1, 2 | Everyone | Current |
| Natural Resource Conservation Service (NRCS), Berrien and Tift Counties | The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment. | 1, 2 | Everyone | Current |
| Georgia Forestry Commission | Conduct forestry Best Management Practices educational training at Master Timber Harvester and continuing logger education programs, civic programs, and landowner meetings. | 1, 2 | Foresters, timber buyers and loggers, site preparation contractors, landowners | Continuous |

## STAKEHOLDERS

EPD encourages public involvement and the active participation of stakeholders in the process of improving water quality. Stakeholders can provide valuable information and data regarding their community and the impaired water bodies and can provide insight and/or implement management measures.

List of local governments, agricultural organizations or significant landholders, commercial forestry organizations, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

| Name/Organization | Address | City | State | Zip | Phone | E-Mail |
|---|---|---|---|---|---|---|
| Hon. Gregg McClellan, Chairman, Berrien County | P.O. Box 446 | Nashville | GA | 31639 | (229) 686- 5421 | |
| Hon. James Boone, Mayor, City of Alapaha | P.O. Box 34 | Alapaha | GA | 31622 | (229) 532- 7475 | |
| Hon. Cecil Giddens, Mayor, City of Enigma | P.O. Box 98 | Enigma | GA | 31749 | (229) 533- 4185 | |
| Hon. Carl Camon, Mayor, City of Ray City | P.O. Box 128 | Ray City | GA | 31645 | (229) 455- 2501 | |
| Hon. Thomas Parr, Mayor, City of Nashville | P.O. Box 495 | Nashville | GA | 31639 | (229) 686- 5527 | |

| Name/Organization | Address | City | State | Zip | Phone | E-Mail |
|---|---|---|---|---|---|---|
| Dr. Van Whaler, Berrien County Administrator | P.O. Box 446 | Nashville | GA | 31639 | (229) 686- 5421 | |
| Jerry Griner, Street and Sanitation Superintendent, City of Nashville | P.O. Box 495 | Nashville | GA | 31639 | (229) 686- 5527 | |
| Hon. Buddy Bryan, Chairman, Tift County | P.O. Box 826 | Tifton | GA | 31793 | (229) 386- 7850 | |
| Hon. Ray Hunt, Jr., Mayor, City of Omega | P.O. Box 6 | Omega | GA | 31775 | (229) 528- 4400 | |
| Hon. Paul Johnson, Mayor, Tifton City Council | P.O. Box 229 | Tifton | GA | 31793 | (229) 382- 6231 | |
| Hon. Keith Beasley, Mayor, City of Ty Ty | P.O. Box 36 | Ty Ty | GA | 31795 | (229) 382- 9476 | |
| Wayne Johnson, Tift County Manager | P.O. Box 826 | Tifton | GA | 31793 | (229) 386- 7850 | |
| Charles Howell, Tifton City Manager | P.O. Box 229 | Tifton | GA | 31793 | (229) 382- 6231 | |
| Damon Harper, Public Utilities Director, City of Tifton | P.O. Box 229 | Tifton | GA | 31793 | (229) 382- 6231 | |
| South Georgia RDC | 327 W. Savannah Ave. | Valdosta | GA | 31601 | (229) 333- 5277 | sgrdc@sgrdc.com |
| Hal Simpson -NRCS District Conservationist | 516-A County Farm Road | Nashville | GA | 31639 | (229) 686- 2363 | |
| Mary Leidner- NRCS District Conservationist | Tifton Service Center<br>1468 Carpenter Road S | Tifton | GA | 31794 | (229) 382- 4776 | |
| Forrest Connelly- Berrien County Extension Coordinator | 516-A County Farm Road | Nashville | GA | 31639 | (229) 686- 5431 | |
| Scott Carlson- Tift County Extension Agent | P.O. Box 7548 | Tifton | GA | 31793 | (229) 391- 7980 | |

| Name/Organization | Address | City | State | Zip | Phone | E-Mail |
|---|---|---|---|---|---|---|
| Bobby Mathis- Georgia Forestry Commission | 3011 US HWY 84 E | Valdosta | GA | 31606 | (229) 333- 7817 | bmathis@gfc.state.ga.us |
| Georgia Farm Services Agency | Federal Building<br>Room 102<br>355 East Hancock Avenue | Athens | GA | 30601 | (706) 546- 2266 | |
| Berrien County Farm Service Agency | Nashville Service Center<br>516-A County Farm Road Suite 3 | Nashville | GA | 31639 | (229) 686- 2363 | |
| Tift County Farm Service Agency | Tifton Service Center<br>1468 Carpenter Road S | Tifton | GA | 31794 | (229) 382- 2775 | |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) | P.O. Box 748 | Tifton | GA | 31794 | (229) 386- 7274 | scrow@tifton.cpes.peachnet.edu |
| Tift County Greenspace Program | P.O. Box 826 | Tifton | GA | 31793 | (229) 386- 7955 | wjohnson@tiftcounty.org |
| Tifton/Tift County Clean Community Commission, Sherrie Sumner | The Myron Complex<br>P.O. Box 229 | Tifton | GA | 31793 | (229) 386- 7991<br>(229) 382-6231 | |
| Berrien County 4-H | 516-A County Farm Road<br>Suite 1 | Nashville | GA | 31639 | (229) 686- 5431 | |
| Tift County 4-H | P.O. Box 7458 | Tifton | GA | 31793 | (229) 391- 7980 | |
| Al Browning | P.O. Box 5023 | Nashville | GA | 31639 | (229) 686- 2821 | Labfarm1@yahoo.com |
| Johnny Crawford | P.O. Box 280 | Enigma | GA | 31749 | | |
| Georgia Forestry Commission | P.O. Box 819 | Macon | GA | 31202 | (478) 751-3485 | |
| Georgia Forestry Association | 500 Pinnacle Court, Ste. 505 | Norcross | GA | 30071 | (770) 416-7621 | |
| Southeastern Wood Producers | P.O. Box 9 | Hilliard | FL | 32046 | (904) 845-7133 | |
| David Bosch | 902 B. Hoth Street | Tifton | GA | 31794 | (229) 386- 4504 | |

## WATER BODIES/STREAMS COVERED IN THIS PLAN:

These impaired streams are located in the same sub-basin identified by a HUC10 code. Most of the information contained in this section comes from the 303(d) list and has been completed by employees of the EPD Water Protection Branch. Data that placed stream on 303(d) list will be provided upon request.

| Waterbody Name #1 | Location | Miles/Area Impacted | Use Classification | Partially Supporting/ Not Supporting (PS/NS) |
|---|---|---|---|---|
| **Hardy Mill Creek** | U.S. Hwy. 319, S. of Tifton to Withlacoochee River | 17 | Fishing | Partially Supporting |

| Primary County | Secondary County | Second RDC | Source (Point/ Non-point) |
|---|---|---|---|
| Berrien | Tift | | Nonpoint |

| Polluants | Water Quality Standards (WQS) | Required Reduction | TMDL ID | Date TMDL Established |
|---|---|---|---|---|
| Low DO | 5mg/l (daily average) 4 mg/l (minimum)<br>3.424 mg/l @ USGS 2317638 (EPA WQS) | 24% | | December 2001 |

| Waterbody Name #2 | Location | Miles/Area Impacted | Use Classification | Partially Supporting/ Not Supporting (PS/NS) |
|---|---|---|---|---|
| **Withlacoochee River** | Hardy Mill Creek to New River | 17 | Fishing | Not Supporting |

| Primary County | Secondary County | Second RDC | Source (Point/ Non-point) |
|---|---|---|---|
| Berrien | | | Non-point |

| Polluants | Water Quality Standards (WQS) | Required Reduction | TMDL ID | Date TMDL Established |
|---|---|---|---|---|
| Low DO | 5mg/l (daily average) 4 mg/l (minimum)<br>2.886 mg/l @ USGS 2317700 (EPA WQS) | 27% | | December 2001 |

## POTENTIAL POLLUTANT SOURCES

It is important to recognize the potential source(s) causing water quality impairment. Each source must be controlled to comply with target TMDL/Load Allocations for each pollutant. Included is a description of how the sources contribute to the impairment and the waterbody that is impaired.

List of major nonpoint source categories and sub-categories or individual sources (Urban Runoff, Agriculture, Forestry, and Municipal Sewage Treatment Plant)

| Pollutant | Potential Sources of Pollutants | Description of Contribution To Impairment | Impacted Waterbodies* |
|---|---|---|---|
| Low Dissolved Oxygen | Natural | Stream below critical conditions: High temperatures and low flow contribute to low levels of dissolved oxygen in the stream | 1, 2 |
| Low Dissolved Oxygen | Urban / Rural Development Runoff | Urban runoff from the City of Enigma and the City of Nashville and including rural runoff that is washed away into nearby water sources, i.e. Chemical runoff from lawns, improper removal of trash, organic material such as leaves and yard trimmings, storm water runoff, fluids from parking areas, roads, and sediment erosion. | 1, 2 |
| Low Dissolved Oxygen | Berrien County Spray Fields | Runoff from spray fields and broken spray heads | 2 |
| Low Dissolved Oxygen | Failing septic tanks | Effluent leakage due to overflowing sewage systems and leaking collection lines | 1, 2 |
| Low Dissolved Oxygen | Animal waste | Animal waste that is deposited and then not properly removed or no lagoon is in place and is then washed into water bodies | 1, 2 |
| Low Dissolved Oxygen | Organic matter | Organic matter runoff from wetlands / forest accumulates and then builds up when not properly secured or disposed and direct / lateral leaf litter | 1, 2 |
| Low Dissolved Oxygen | Agriculture runoff | Pesticides / Fertilizer runoff causes nutrient build-up in water bodies | 1, 2 |
| Low Dissolved Oxygen | Improper methods of trash collection and disposal | Spillage and incorrect disposal of substances into the water bodies or on the surface that is washed into drainage systems or water bodies | 1, 2 |
| Low Dissolved Oxygen | Silviculture | Possible introduction of sediment from normal practices and stream crossings when BMP's are not followed.<br>Possible cause of decline in available oxygen resulting from removal of over story trees w/in SMZ resulting in increase in stream temperatures. Leaving logging debris in streams.<br>Possible introduction of nitrogen and phosphorous from fertilization practices. | 1, 2 |

## MANAGEMENT MEASURES, MEASURABLE MILESTONES AND SCHEDULE

**(i.e. Local codes and ordinances, Erosion and Sedimentation Control, Storm Water Management, Local water resource monitoring)**

The following table lists management measures that have been or will be implemented to achieve water quality standards and the load reductions established in the TMDL. The management measures, including regulatory or voluntary actions or other controls by governments or individuals, specifically apply to the pollutant and the waterbody for which the TMDL was written. A description is provided of how these management measures are/will be accomplished through reliable and effective delivery mechanisms, and how these management measures are/will help achieve the target TMDL. Included is the source of the pollutant, anticipated/past effectiveness of the management measure (very effective, somewhat effective, not effective), the current status (i.e. enforced, in-progress, planning), and measurable milestones and schedule. Milestones are used to measure progress in attaining water quality standards and to determine whether management measures are being implemented.

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Well and Septic Ordinances | Berrien County | Onsite permit process for well and septic tanks | | Enforced | Regulatory |
| | City of Enigma | | | Enforced | Regulatory |
| | City of Nashville | | | Enforced | Regulatory |
| | Tift County | | | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Waterbodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Septic systems | 1, 2 | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Continued compliance with well / septic installation / repair / maintenance.<br>Any public service site is tested on a routine basis to maintain a healthy site.<br>Inspections on private services are checked on a complaint basis only. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Building Codes | Berrien County<br>City of Enigma<br>City of Nashville<br>Tift County | Building codes initiate site plan procedures for all forms of land development. This indirectly reduces increased levels of DO and fecal coliform in streams, i.e. building front, side, and rear setbacks and voluntary conservation easements on privately owned property. An example of a nonstructural BMP is sediment controls and slope gradient measures. | 1999<br>1999 | Enforced<br>Enforced<br>Enforced<br>Enforced | Regulatory<br>Regulatory<br>Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Waterbodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | 1, 2 | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Permit required for construction. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Land Subdivision Ordinance | Berrien County<br>City of Nashville<br>Tift County | Land Subdivision Ordinances initiate plan review for proposed subdivision. This typically includes sedimentation and water control measures. The lot size of land plays an important role in the amount of runoff that comes from urban and rural areas, i.e. storm water runoff and septic tank leaks or overflow. | 2001 | Enforced<br>Enforced<br>Enforced | Regulatory<br>Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Waterbodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | 1, 2 | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Periodic reassessment of effectiveness of ordinance.<br>The ordinances are updated on a periodic basis as developments progress. This is done to prevent overgrowth of developments. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Zoning Ordinance | Berrien County<br>City of Enigma<br>City of Nashville<br>Tift County | To divide an area into zones or sections reserved for different purposes such as residence, business, and manufacturing to best suit the growth and land uses, also to help with the protection of sensitive areas such as water sources.<br><br>Promotion of the proper location, height, stories, and size of open spaces along with the density and land uses. | 2002<br>2000 | Pending<br>Pending<br>Enforced<br>Enforced | Regulatory<br>Regulatory<br>Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Waterbodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | 1, 2 | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Periodic reassessment of effectiveness of ordinance. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Groundwater Recharge Area Development | Berrien County<br>City of Nashville<br>Tift County | Georgia Planning Act Part V: Environmental Criteria.<br>This ordinance regulates development of areas designated as high pollution susceptibility due to their location in the regional landscape. A BMP for groundwater protection is sand filters such as vegetation or sand to filter and settle pollutants. | 2001<br>2001<br>2000 | Enforced<br>Enforced<br>Enforced | Regulatory<br>Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Waterbodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff and illegal dumping of trash | 1, 2 | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Ongoing protection of sensitive lands opens for development. | Continuous | | SGRDC assists with the administration of this code.<br>Groundwater Recharge areas area very sensitive to pollution and directly effect the quality of all water sources that are related to them. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Local Wetlands Policy Ordinance | Berrien County<br>City of Enigma<br>City of Nashville<br>Tift County | Georgia Planning Act Part V: Environmental Criteria<br>This ordinance regulates development of areas designated as wetlands as defined by the U.S. Army Corps of Engineers as jurisdictional wetlands. | 2001<br>2001<br>2001<br>2000 | Enforced<br>Enforced<br>Enforced<br>Enforced | Regulatory<br>Regulatory<br>Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff and illegal dumping of trash | 1, 2 | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Ongoing protection of sensitive land not open for development. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Protected River Corridor Plan Ordinance | Berrien County<br>Tift County | Georgia Planning Act Part V: Environmental Criteria<br>This ordinance regulates development of areas designated as protected river corridors as they related to development and disturbance of land along protected river corridors. | 2001<br>2001 | Enforced<br>Enforced | Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff and illegal dumping of trash | 1, 2 | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Ongoing protection of sensitive land open for development along identified river corridors. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Floodplain Management Ordinance | City of Nashville<br>Tift County | 100 year / 500 year flood levels are shown on FEMA flood maps | | Enforced<br>Enforced | Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | 1, 2 | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| N/A | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Local Soil and Sedimentation Ordinance | Berrien County<br>City of Nashville<br>Tift County | Regulation of BMP's for development<br>Erosion and Sedimentation Control Act (GESA). Requires permits for "land disturbing activities" and requires buffers to be maintained between the land disturbing activity and waters of the state. | | Enforced<br>Enforced<br>Enforced | Regulatory<br>Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | 1, 2 | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Continued enforcement of ordinance will ensure less sedimentation in water bodies. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Suwannee River Basin Management Plan | Georgia Department of Natural Resources | Detailed management plans for the Suwannee River Basin. The purpose of the plan is to develop and implement a basin-planning program to protect, enhance and restore the waters for the State of Georgia, which will provide for effective monitoring, allocation, use, regulation, and management of water resources. | Final draft pending approval March 2002 | Pending State approval | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Various Sources | 1, 2 | Very Effective |

| Measurable Milestones | Schedule: Start | Schedule: End | Comments |
|---|---|---|---|
| 1. Implement Monitoring Plan and Compile Detailed Information/Data. | 2003- 2004 | | |
| 2. Analyze and Evaluate Detailed Information, Update Basin Assessment and Priority Issues List, Develop Strategies for Priority Issues, and Stakeholder meeting. | 2004- 2005 | | |
| 3. Continue to Develop Strategies for Priority Issues and Prepare and Update Draft River Basin Plan. | 2005- 2006 | | |
| 4. Agency and Public Review and Hearings, Finalize River Basin Plan, Implement River Basin Plan, and Stakeholder meeting. | 2006- 2007 | | |
| 5. Continue to Implement River Basin Plan and Stakeholder meeting. | 2007- Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Establish the Natural Range of Dissolved Oxygen Levels in Streams of the South Georgia Coastal Plain | Georgia DNR-EPD | An extensive stream-monitoring program to establish the DO range naturally occurring during critical stream flow conditions in the South Georgia Coastal Plain. | Spring 2003 | Grant Applied Conditionally approved per revisions of proposal | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Naturally Occurring | 1, 2 | Very Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Three years of bi-weekly water quality and hydrologic parameter monitoring at a maximum of 60 locations. Annual characterization of study stream morphology; semiannual long term BOD; semiannual benthic and periphyton respiration by respirometer. Evaluation and characterization of study watersheds to establish the dynamics affecting DO in each watershed. | Expected start, Spring 2003; | Expected end, Spring 2006 | Piscola Creek watershed monitoring data collected in the past four years show that in summer months 8 highly enriched streams in the midst of intensive livestock and row-crop production have much higher DO values than a comparison "reference" stream. These and other data collected by UGA and USDA-ARS scientists have lead the hypothesis that a combination of high summer-time temperatures, low flows, and high loads of organic carbon contributed by riparian vegetation contribute to naturally low DO levels in unimpacted Coastal Plain streams. A proposal to establish an extensive stream-monitoring program to establish the natural range of DO at critical flow conditions has been submitted to Georgia DNR-EPD administered U.S. Environmental Protection Agency's Clean Water Act Section 319(h) Grant Program. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Georgia Forestry Commission | State of Georgia | A set of guidelines to better protect Georgia's streams and other water bodies from forestry non-point source pollution (primarily erosion and sedimentation). | Ongoing | Ongoing | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Forestry Runoff | 1, 2 | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Some Best Management Practices (BMP's) for forestry to minimize erosion and stream sedimentation from forestry practices are: timber harvesting, chemical treatments, controlled burning, and streamside management.<br>In 1998, 98% of the 43,906 acres that were evaluated were in compliance with the BMP's.<br>In 1992, the stream compliance was 95.5%.<br>The goal is to meet 100% compliance with each BMP. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Federal Clean Water Act Section 404 | EPA (situations involving forestry are normally referred to the GFC to determine compliance with this regulation) | Requires normal ongoing agricultural and silvicultural practice to adhere to BMP's 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. | June 6, 1988 | Current | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Sediment from dredge or fill activities | Agriculture and silviculture | 1, 2 | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| GFC can report status on accomplishments or complaints investigated involving this act to the RDC as needed. | Continuous | | EPA identifies silviculture as the lowest contribution source of non-point pollution |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Memo to the Field: Application of BMP's to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast | 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. | November 1995 | Current | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Biota, habitat | Silviculture | 1, 2 | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| GFC can provide status reports as needed | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Federal Farm Bill (Swamp buster) | US Department of Agriculture Natural Resource Conservation Service | Prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture | | Current | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Biota (habitat) | Agriculture | 1, 2 | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Status reports can be provided as needed | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Georgia Water Quality Control Act (OCGA 12-5-20) | GA DNR EPD | Makes it unlawful to discharge excessive pollutants (sediments, nutrients, pesticides, animal waste, 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. | 1964 | Current | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Sediments, nutrients, pesticides, and habitat | Silviculture | 1, 2 | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| GFC investigates and mediates silvicultural complaints on behalf of EPD. Unresolved complaints are turned over to EPD for enforcement. Status reports can be provided to RDC as needed. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| GA Growth Planning Act (OCGA 12-2-8) | GA DNR, Department of Community Affairs, and local units of government | Authorized GA DNR to develop minimum planning standards and procedures that local jurisdictions could adopt and enforce pertaining to the protection of river corridors, mountaintops, water supply watersheds/reservoirs, groundwater recharge areas, and wetlands. Silvicultural activities may be exempted from permitting requirements provided the activity complies with BMP's | 1991 | Local jurisdictions have to adopt ordinances to address these areas | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Biota, habitat, sediment | Silviculture | 1, 2 | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| GFC can determine applicability and BMP implementation for local units of government. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Farm Bill 2002 | Natural Resources Conservation Service (NRCS) | The Farm Security and Rural Investment Act of 2002 is landmark legislation for conservation funding and for focusing on environmental issues. The conservation provisions will assist farmers and ranchers in meeting environmental challenges on their land. This legislation simplifies existing programs and creates new programs to address high priority environmental and production goals. The 2002 Farm Bill enhances the long-term quality of our environment and conservation of our natural resources. | 2002 | Current | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Various Sources | 1,2 | Very Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| N/A | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Farm Services Agency | State of Georgia / Local FSA | Stabilizing farm income, helping farmers conserve land and water resources, providing credit to new or disadvantaged farmers and ranchers, and helping farm operations recover from the effects of disaster are the missions of the U.S. Department of Agriculture's Farm Service Agency (FSA). | Ongoing | Ongoing | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Agriculture Runoff | 1,2 | Very Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| The 1996 Act removed the link between income support payments and farm prices by providing for a one-time sign-up for a Production Flexibility Contract whereby producers receive seven annual fixed but declining production flexibility contract payments through 2002. This program, entitled the Agricultural Market Transition Act (AMTA), reflects FSA's direction over the next seven years whereby farm commodity prices will be largely determined by market factors, rather than government subsidies and production controls. To receive payments and loans on program commodities, producers must have entered into a 7-year contract by August 1, 1996. More than 98 percent of the eligible acres enrolled. Program commodities include wheat, corn, sorghum, barley, oats, upland cotton, and rice. The contract requires producers to comply with existing conservation plans for the farm, wetland provisions, and planting flexibility provisions, as well as to keep the land in agricultural use. Except for fruits and vegetables, any commodity or crop may be planted on contract acreage on a farm. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Conservation Reserve Program (CRP) | United States Department of Agriculture (USDA) | The Conservation Reserve Program (CRP) provides technical and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. The program provides assistance to farmers and ranchers in complying with Federal, State, and tribal environmental laws, and encourages environmental enhancement. The program is funded through the Commodity Credit Corporation (CCC). The Conservation Reserve Program reduces soil erosion, protects the Nation's ability to produce food and fiber, reduces sedimentation in streams and lakes, improves water quality, establishes wildlife habitat, and enhances forest and wetland resources. It encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as tame or native grasses, wildlife plantings, trees, filter strips, or riparian buffers. Farmers receive an annual rental payment for the term of the multi-year contract. Cost sharing is provided to establish the vegetative cover practices. | | Current | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Various Sources | 1,2 | Very Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| CRP is administered by the Farm Service Agency, with NRCS providing technical land eligibility determinations, Environmental Benefit Index Scoring, and conservation planning. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Environmental Quality Incentives Program (EQIP) | United States Department of Agriculture (USDA) | The Environmental Quality Incentives Program (EQIP) was reauthorized in the Farm Security and Rural Investment Act of 2002 (Farm Bill) to provide a voluntary conservation program for farmers and ranchers that promotes agricultural production and environmental quality as compatible national goals. EQIP offers financial and technical help to assist eligible participants install or implement structural and management practices on eligible agricultural land. | | Current | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Various Sources | 1,2 | Very Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| EQIP offers contracts with a minimum term that ends one year after the implementation of the last scheduled practices and a maximum term of ten years. These contracts provide incentive payments and cost-shares to implement conservation practices. Persons who are engaged in livestock or agricultural production on eligible land may participate in the EQIP program. EQIP activities are carried out according to an environmental quality incentives program plan of operations developed in conjunction with the producer that identifies the appropriate conservation practice or practices to address the resource concerns. The practices are subject to NRCS technical standards adapted for local conditions. The local conservation district approves the plan. | Continuous | | NRCS EQIP Funds and provide for cross fencing, paddock development, rotational grazing, and nutrient and pest management. It helps to provide healthier pastures and more efficient use of grasses. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Manure Management Plan | Individual | A manure management plan can help provide the most use of the nutrients in manure while protecting the water quality, and meeting manure-handling requirements. | Ongoing | Ongoing | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Manure | 1,2 | Very Effective |

| Measurable Milestones | Schedule: Start | Schedule: End | Comments |
|---|---|---|---|
| Keeping records of manure applications and continuous soil samples. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Nutrient Management Program | 7 Rivers RC & D, NRCS, and University of Georgia Extension Agent | Encourages and educates farmers on the correct usage and amount of fertilizers to maintain high yield and to lessen the impact of nitrates and phosphates to waterways. | 1991 | In-progress | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Nitrates and Phosphates Runoff | 1,2 | Very Effective |

| Measurable Milestones | Schedule: Start | Schedule: End | Comments |
|---|---|---|---|
| Reduction in the measured amount of DO in impacted waterways. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Pesticides Management Program | 7 Rivers RC & D, NRCS, and University of Georgia Extension Agent | Encourages and educates farmers on the correct usage and amount of pesticides to reduce the impact of pesticides in the waterways. | 1991 | In-progress | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Pesticides Runoff | 1,2 | Very Effective |

| Measurable Milestones | Schedule: Start | Schedule: End | Comments |
|---|---|---|---|
| Reduction in the measured amount of DO in impacted waterways. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Soil Testing | University of Georgia Cooperative Extension Services and Individual | Soil samples are taken to determine what nutrients are needed for any agricultural or silvicultural use. This reduces or avoids any unnecessary applications of fertilizers, herbicides, pesticides, etc. so to minimize harmful runoff. | | Current | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Nitrates, Phosphates, Pesticides Runoff | 1,2 | Very Effective |

| Measurable Milestones | Schedule: Start | Schedule: End | Comments |
|---|---|---|---|
| Soil samples are taken on a regular basis. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Georgia Rules and Regulations Water Quality Control (391-3-6). | GA DNR EPD | Makes it unlawful to discharge excessive pollutants (sediments, nutrients, pesticides, animal waste, 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. | 1964 Revised June 2002 | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Industry/Non-industry Runoff | 1,2 | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Compliance with rules and various permits issued under rules. | Continuous | | N/A |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| South Georgia Multi-Jurisdictional Solid Waste Management Plan | Berrien County<br>Lanier County | 10 Counties participate and currently seek to coordinate solid waste management activities throughout the South Georgia Region and to cooperate in the activities of local Comprehensive Plans. The prime focus here is the collection and disposal of waste in a manner, which prevents pollution of surface and sub-service water resources. | 1992<br>1992 | In-progress<br>In-progress | Voluntary<br>Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Impacted Water bodies* | Anticipated or Past Effectiveness |
|---|---|---|---|
| Low Dissolved Oxygen | Solid Waste | 1,2 | Very Effective |

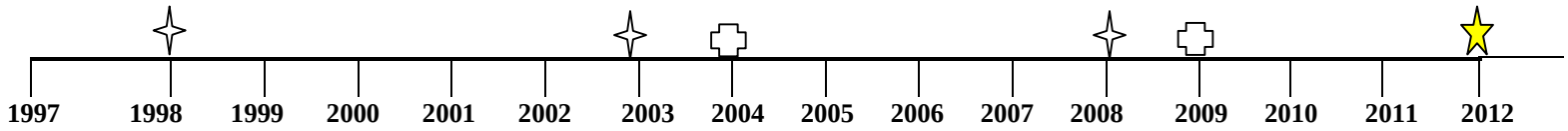
| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| This management measure is currently being updated. | Continuous | | N/A |

**POTENTIAL FUNDING SOURCES** The identification and discussion of dedicated funding is important in determining the economic feasibility of the above-mentioned management measures.

| Funding Source | Responsible Authority | Status | Anticipated Funding Amount | Impacted Waterbodies* |
|---|---|---|---|---|
| 319 (h) Grant | EPD/State of Georgia | Must Apply | Unknown | 1, 2 |
| Greenspace Funds | Georgia Department of Natural Resources | Must Apply | Unknown | 1, 2 |
| Conservation Reserve Program | USDA | Must Apply | Unknown | 1, 2 |
| Environmental Quality Incentive Program (EQIP) | Natural Resources Conservation Service | Must Apply | Unknown | 1, 2 |
| Wildlife Habitat Incentive Program | Natural Resources Conservation Service | Must Apply | Unknown | 1, 2 |
| Urban Resources Partnership (URP) | Forest Service, the Natural Resources Conservation Service, the National Park Service, the Environmental Protection Agency, and the Department of Housing and Urban Development | Must Apply | Unknown | 1, 2 |
| Toxics Grant | Jessie Smith Noyes Foundation | Must Apply | Unknown | 1, 2 |
| Sustainable Agriculture Grant | Jessie Smith Noyes Foundation | Must Apply | Unknown | 1, 2 |
| Sustainable Communities Grant | Jessie Smith Noyes Foundation | Must Apply | Unknown | 1, 2 |
| Progressive Fund | The Fund for Southern Communities | Must Apply | Unknown | 1, 2 |
| Brownfields Assessment Demonstration Pilots | EPA Office of Solid Waste and Emergency Response | Must Apply | Unknown | 1, 2 |
| Pollution Prevention Grants | EPA Office of Pollution Prevention and Toxics | Must Apply | Unknown | 1, 2 |
| DCA Educational Outreach | Department of Community Affairs | Must Apply | Unknown | 1, 2 |

## 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 EPD.




EPD Monitoring
Evaluate TMDL & Attainment Date
Project Attainment

## MONITORING PLAN

The purpose of this monitoring plan is to determine the effectiveness of the target TMDL and the management measures being implemented to meet water quality standards. List of previous, current or planned/proposed sampling activities or other surveys. (Monitoring data that placed stream on 303(d) list will be provided if requested.)

| Name Of Regulation / Ordinance Or Management Measure | Organization | Impacted Waterbodies* | Pollutants | Purpose/Description | Time Frame | | Status (Previous, Current, Proposed) |
|---|---|---|---|---|---|---|---|
| | | | | | Start | End | |
| NPDES Permit # GAG930000 | GAEPD | 1 | Low Dissolved Oxygen | Refer to Permit for Monitoring Details | | | Pending |
| Water Quality Testing | USGS | 1, 2 | Low Dissolved Oxygen | Assess Water Quality | N/A | Continuous | Current |
| Water Quality Monitoring | Georgia Adopt-A-Stream | 1, 2 | Low Dissolved Oxygen | To help educate and improve/or maintain a streams quality | TBA | TBA | Proposed |
| Scrap Tire Management Program | Local government | 1, 2 | Low Dissolved Oxygen | To reduce the illegal dumping of scrap tires, reduction in solid waste, and other environmental issues by hiring an enforcement / education officer to respond and monitor | TBA | TBA | Proposed |

| Name Of Regulation / Ordinance Or Management Measure | Organization | Impacted Waterbodies* | Pollutants | Purpose/Description | Time Frame | | Status (Previous, Current, Proposed) |
|---|---|---|---|---|---|---|---|
| | | | | | Start | End | |
| Water Quality Testing | Local / County Governments | 1, 2 | Low Dissolved Oxygen | Local testing to ensure quality on impaired streams as they relate to effluent discharge | N/A | Continuous | Ongoing |
| Monitoring Program | National Environmentally Sound Production Agriculture Laboratory (NESPAL) and USDA-ARS Southeast Watershed Laboratory | 1, 2 | Low Dissolved Oxygen | To study the water quality of the entire Suwannee Basin | N/A | N/A | Current |
| Monitoring Program | National Environmentally Sound Production Agriculture Laboratory (NESPAL) | 1, 2 | Low Dissolved Oxygen | 319 (h) grant to study dissolved oxygen | 2003 | 2006 | Grant applied |
| Forest Water Quality Program | Georgia Forestry Commission (GFC) | 1, 2 | Low Dissolved Oxygen, Biota | BMP Education<br>Complaint Investigation<br>BMP Monitoring monthly<br>Assurance Exams | N/A | N/A | Current<br>Current<br>Proposed |

## CRITERIA TO DETERMINE WHETHER SUBSTANTIAL PROGRESS IS BEING MADE

The following set of criteria will be used to determine whether any substantial progress is being made towards reducing pollutants in impaired waterbodies and attaining water quality standards. Discussion on each criteria is recorded in the space provided. Additional relevant criteria are presented in comments.

Percent of concentration or load change (monitoring program) _____

*If monitoring results show that it is unlikely that the TMDL will be adequate to meet water quality standards, revision of the TMDL may be necessary.*

- Categorical change in classification of the stream (delisting the stream is the goal) _____

- Regulatory controls or activities installed (ordinances, laws) _____

- Best management practices installed (agricultural, forestry, urban) _____

**COMMENTS**

On behalf of the stakeholders of the Suwannee River Basin, the South Georgia RDC suggest further studies on each of the streams that have been listed on the 303(d) list since there have been numerous concerns about when the samples were taken and the number of samples taken from each stream. We also feel that the natural range of dissolved oxygen levels in the streams of the South Georgia Coastal Plains need to be further studied and established specifically for this region. Until the standard is developed, there are currently several organizations that have been involved with monitoring studies related to this region and their data could be used to help develop a proper standard for this region.

Attached are photos of Hardy Mill Creek: Taken North of Coy Hancock Road, County Road 354

Attached are photos of the Withlacoochee River: Taken North and South of County Road 354.

Attached are photos of the Withlacoochee River: Taken North and South of Hwy 76.

Hardy Mill Creek on Count Road 354.

Hardy Mill Creek North side along Co. Rd. 354.

Hardy Mill Creek North side along Co. Rd. 354.

Hardy Mill Creek North side along Co. Rd. 354.

Withlacoochee River on Co. Rd. 354.

Withlacoochee River South side of Co. Rd. 354.

Withlacoochee River South side of Co. Rd. 354.

Withlacoochee River South side of Co. Rd. 354.

Withlacoochee River looking east.

Withlacoochee River looking north.

Withlacoochee River looking south.

Withlacoochee River south side looking west.

Turtle in Withlacoochee River.

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The preparation of this report was financed in part through a grant from the U.S. Environmental Protection Agency under the provisions of Section 106 of the Federal Water Pollution Control Act, as amended.

**Environmental Protection Division of the Department of Natural Resources, State of Georgia.**

# TOGETHER WE CAN MAKE A DIFFERENCE!

# ATTACHMENT A:

# STREAM APPROACH

**STATE OF GEORGIA**

# TMDL IMPLEMENTATION PLAN

**SUWANNEE RIVER BASIN**

## STREAM APPROACH

TMDL Implementation Plans are platforms for establishing a course of actions to restore the quality of impaired water bodies in a watershed. They are intended as a continuing process that may be revised as new conditions and information warrant. Procedures will be developed to track and evaluate the implementation of the management practices and activities identified in the plans. Once restored, appropriate management practices and activities will be continued to maintain the water bodies. **With input from appropriate stakeholder groups, a TMDL Implementation Plan has been developed for a cluster of impaired streams and the corresponding pollutants.** The impaired streams are located in the same sub-basin identified by a HUC 10 code (Figure 1).

**This portion of the Implementation Plan addresses individual waterbodies** and the corresponding pollutant sources, stakeholders, education/outreach activities, and potential funding sources. In addition, the Plan describes (a) regulatory and voluntary practices/control actions (*management measures*) to reduce target pollutants, (b) milestone schedules to show the development of the management measures on reducing target pollutants (*measurable milestones*), and (c) a monitoring plan to determine the efficiency of the management measures and measurable. The overall goal of the Plan is to define a set of actions that will help achieve water quality standards in the state of Georgia.

Hardy Mill and Withlacoochee Watershed
HUC10# 0311020301

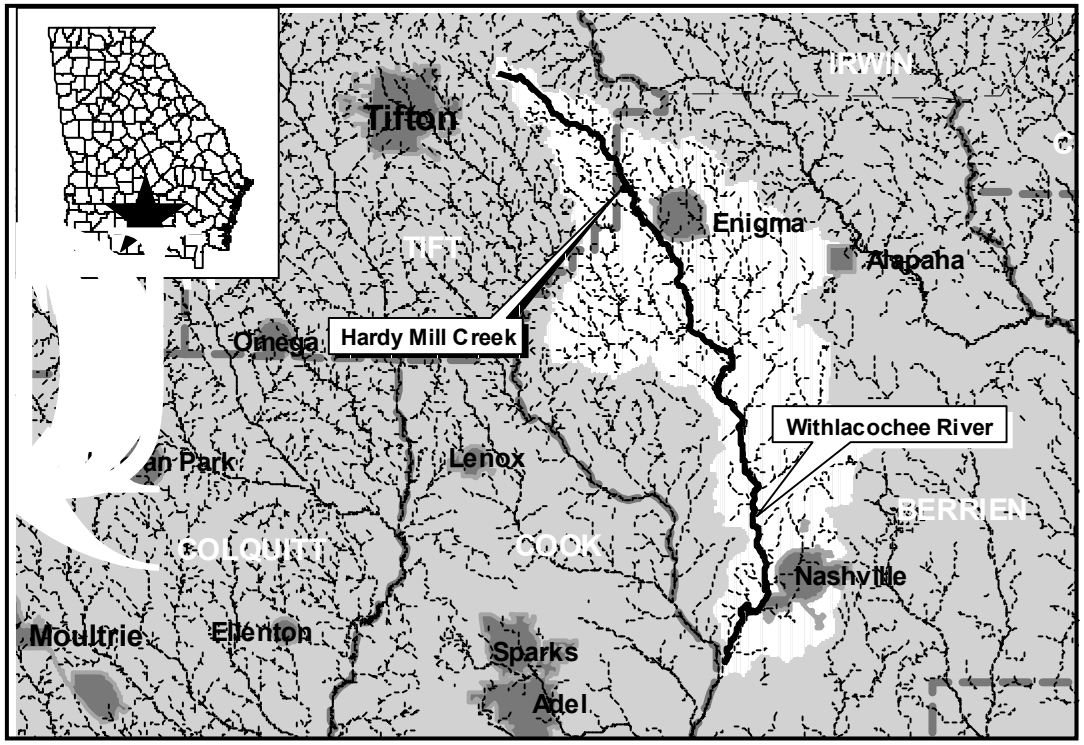


FIGURE 1

| Impaired Waterbody* | Location | Impairment |
|---|---|---|
| 1. Hardy Mill Creek | U.S. Hwy. 319, S. of Tifton to Withlacoochee River | Low DO |
| 2. Withlacoochee River | Hardy Mill Creek to New River | Low DO (The EPD has prepared a separate Implementation Plan for FCG Hg) |

*These Water body Numbers are referenced throughout the implementation plan.

# Hardy Mill Creek

| NAME | LOCATION | MILES/AREA IMPACTED | CLASSIFICATION | PARTIALLY SUPPORTING/ NOT SUPPORTING (PS/NS) |
|---|---|---|---|---|
| **Hardy Mill Creek** | U.S. Hwy. 319, S. of Tifton to Withlacoochee River | 17 | Fishing | Partially Supporting |

| PRIMARY COUNTY | SECONDARY COUNTY | SECOND RDC | SOURCE (POINT/NON-POINT) |
|---|---|---|---|
| Berrien | Tift | | Nonpoint |

| POLLUANTS | WATER QUALITY STANDARDS (WQS) | REQUIRED REDUCTION |
|---|---|---|
| Low DO | 5mg/l (daily average) 4 mg/l (minimum)<br>3.424 mg/l @ USGS 2317638 (EPA WQS) | 24% |

| TMDL ID # | DATE TMDL ESTABLISHED |
|---|---|
| | December 2001 |

## SIGNIFICANT STAKEHOLDERS

| Name/Organization | Address | City | State | Zip | Phone | E-mail |
|---|---|---|---|---|---|---|
| Hon. Gregg McClellan, Chairman, Berrien County | P.O. Box 446 | Nashville | GA | 31639 | (229) 686- 5421 | |
| Hon. James Boone, Mayor, City of Alapaha | P.O. Box 34 | Alapaha | GA | 31622 | (229) 532- 7475 | |
| Hon. Cecil Giddens, Mayor, City of Enigma | P.O. Box 98 | Enigma | GA | 31749 | (229) 533- 4185 | |
| Hon. Carl Camon, Mayor, City of Ray City | P.O. Box 128 | Ray City | GA | 31645 | (229) 455- 2501 | |
| Hon. Thomas Parr, Mayor, City of Nashville | P.O. Box 495 | Nashville | GA | 31639 | (229) 686- 5527 | |
| Dr. Van Whaler, Berrien County Administrator | P.O. Box 446 | Nashville | GA | 31639 | (229) 686- 5421 | |
| Jerry Griner, Street and Sanitation Superintendent, City of Nashville | P.O. Box 495 | Nashville | GA | 31639 | (229) 686- 5527 | |
| Hon. Buddy Bryan, Chairman, Tift County | P.O. Box 826 | Tifton | GA | 31793 | (229) 386- 7850 | |
| Hon. Ray Hunt, Jr., Mayor, City of Omega | P.O. Box 6 | Omega | GA | 31775 | (229) 528- 4400 | |
| Hon. Paul Johnson, Mayor, Tifton City Council | P.O. Box 229 | Tifton | GA | 31793 | (229) 382- 6231 | |

Suwannee River Basin
TMDL Implementation Plan
Hardy Mill and Withlacoochee Watershed
HUC10# 0311020301

| Name/Organization | Address | City | State | Zip | Phone | E-mail |
|---|---|---|---|---|---|---|
| Hon. Keith Beasley, Mayor, City of Ty Ty | P.O. Box 36 | Ty Ty | GA | 31795 | (229) 382- 9476 | |
| Wayne Johnson, Tift County Manager | P.O. Box 826 | Tifton | GA | 31793 | (229) 386- 7850 | |
| Charles Howell, Tifton City Manager | P.O. Box 229 | Tifton | GA | 31793 | (229) 382- 6231 | |
| Damon Harper, Public Utilities Director, City of Tifton | P.O. Box 229 | Tifton | GA | 31793 | (229) 382- 6231 | |
| South Georgia RDC | 327 W. Savannah Ave. | Valdosta | GA | 31601 | (229) 333- 5277 | sgrdc@sgrdc.com |
| Hal Simpson -NRCS District Conservationist | 516-A County Farm Road | Nashville | GA | 31639 | (229) 686- 2363 | |
| Mary Leidner- NRCS District Conservationist | Tifton Service Center<br>1468 Carpenter Road S | Tifton | GA | 31794 | (229) 382- 4776 | |
| Forrest Connelly- Berrien County Extension Coordinator | 516-A County Farm Road | Nashville | GA | 31639 | (229) 686- 5431 | |
| Scott Carlson- Tift County Extension Agent | P.O. Box 7548 | Tifton | GA | 31793 | (229) 391- 7980 | |
| Bobby Mathis- Georgia Forestry Commission | 3011 US HWY 84 E | Valdosta | GA | 31606 | (229) 333- 7817 | bmathis@gfc.state.ga.us |
| Georgia Farm Services Agency | Federal Building<br>Room 102<br>355 East Hancock Avenue | Athens | GA | 30601 | (706) 546- 2266 | |
| Berrien County Farm Service Agency | Nashville Service Center<br>516-A County Farm Road Suite 3 | Nashville | GA | 31639 | (229) 686- 2363 | |
| Tift County Farm Service Agency | Tifton Service Center<br>1468 Carpenter Road S | Tifton | GA | 31794 | (229) 382- 2775 | |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) | P.O. Box 748 | Tifton | GA | 31794 | (229) 386- 7274 | scrow@tifton.cpes.peachnet.edu |
| Tift County Greenspace Program | P.O. Box 826 | Tifton | GA | 31793 | (229) 386- 7955 | wjohnson@tiftcounty.org |
| Tifton/Tift County Clean Community Commission, Sherrie Sumner | The Myron Complex<br>P.O. Box 229 | Tifton | GA | 31793 | (229) 386- 7991<br>(229) 382-6231 | |

Suwannee River Basin
TMDL Implementation Plan
Hardy Mill and Withlacoochee Watershed
HUC10# 0311020301

| Name/Organization | Address | City | State | Zip | Phone | E-mail |
|---|---|---|---|---|---|---|
| Berrien County 4-H | 516-A County Farm Road Suite 1 | Nashville | GA | 31639 | (229) 686- 5431 | |
| Tift County 4-H | P.O. Box 7458 | Tifton | GA | 31793 | (229) 391- 7980 | |
| Al Browning | P.O. Box 5023 | Nashville | GA | 31639 | (229) 686- 2821 | Labfarm1@yahoo.com |
| Johnny Crawford | P.O. Box 280 | Enigma | GA | 31749 | | |
| Georgia Forestry Commission | P.O. Box 819 | Macon | GA | 31202 | (478) 751-3485 | |
| Georgia Forestry Association | 500 Pinnacle Court, Ste. 505 | Norcross | GA | 30071 | (770) 416-7621 | |
| Southeastern Wood Producers | P.O. Box 9 | Hilliard | FL | 32046 | (904) 845-7133 | |
| David Bosch | 902 B. Hoth Street | Tifton | GA | 31794 | (229) 386- 4504 | |

## EDUCATION/OUTREACH ACTIVITIES

| Responsible Organization or Entity | Description | Target Audience | Anticipated Dates (MM/YY) |
|---|---|---|---|
| US Fish and Wildlife | The U.S. Fish and Wildlife Service is the principal Federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people. The US Fish and Wildlife has numerous activities that relate to water quality, fish, sedimentation and many more that are available on their website. | Everyone | Current |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) | Research and education efforts to build a better environment for agriculture and rural America | Agriculture and rural America | Current |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) | 319 (h) grant to study dissolved oxygen | River Basins in the Southern Coastal Plain, Georgia | Grant applied |
| Upper Suwannee River Watershed Initiative (USRWI) | Non-Point organizations charged with education / outreach / water related activities within the Suwannee River Basin | Established organizations / clubs / citizens of the Suwannee River Basin | Will depend on group interests and funding sources |
| Seven Rivers Resource Conservation & Development | Non-Profit agency who's goal for environmental protection is to improve the water quality and quantity and preservation of the natural resources in the region | Local government officials / citizens / agricultural organizations | Current |
| South Georgia RDC | The SGRDC offers technical assistance with development regulations | Local government officials / Developers | In-progress |
| South Georgia RDC | To help assist with educational outreach to our local governmental jurisdictions, i.e. City, county and interested individuals | Local government officials / citizens | Current |
| Georgia Adopt-A-Stream | The SGRDC would like to see each school district team up with Georgia Adopt-A-Stream and commit to adopting a stream or streams within their county | Established organizations / clubs and/or those interested | Will depend on group interests and funding sources |
| South Georgia RDC / Berrien and Tift County School Districts | The SGRDC would help Berrien and Tift County School Districts target a group or club of interested students, educate them on the water issues that they are faced with, and to encourage them to participate in water monitoring | Established organizations / clubs and/or those interested | Will depend on group interests and funding sources |

| | | | |
|---|---|---|---|
| South Georgia RDC / Georgia Department of Community Affairs | Facilitate and educate outreach on water resource related activities, i.e. Water Resource Tool Kit and Water First Program | Local government officials / citizens | Current |
| University of Georgia 4-H Club, Berrien and Tift Counties | The mission of Georgia 4-H is to assist youth in acquiring knowledge, developing life skills, and forming attitudes that will enable them to become self-directing, productive and contributing members of society. This mission is accomplished, through "hands on" learning experiences, focused on agricultural and environmental issues, agriculture awareness, leadership, communication skills, foods and nutrition, health, energy conservation, and citizenship. | Students and youth | Current |
| Georgia Cooperative Extension Services, Berrien and Tift Counties | To provide timely, unbiased research-based information to the public as it relates to agricultural and family consumer science. To improve the quality of the life for all communities in the State of Georgia. The County Extension Agent's duty is to deliver new information and technology from the University of Georgia's Coastal Plain Research Center to the community. | Everyone | Current |
| Natural Resource Conservation Service (NRCS), Berrien and Tift Counties | The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment. | Everyone | Current |
| Georgia Forestry Commission | Conduct forestry Best Management Practices educational training at Master Timber Harvester and continuing logger education programs, civic programs, and landowner meetings. | Foresters, timber buyers and loggers, site preparation contractors, landowners | Continuous |

## POTENTIAL POLLUTANT SOURCES

| Pollutant | Potential Source | Description of Contribution to Impairment |
|---|---|---|
| Low Dissolved Oxygen | Natural | Stream below critical conditions: High temperatures and low flow contribute to low levels of dissolved oxygen in the stream |
| Low Dissolved Oxygen | Urban / Rural Development Runoff | Urban runoff from the City of Enigma and the City of Nashville and including rural runoff that is washed away into nearby water sources, i.e. Chemical runoff from lawns, improper removal of trash, organic material such as leaves and yard trimmings, storm water runoff, fluids from parking areas, roads, and sediment erosion. |
| Low Dissolved Oxygen | Failing septic tanks | Effluent leakage due to overflowing sewage systems and leaking collection lines |
| Low Dissolved Oxygen | Animal waste | Animal waste that is deposited and then not properly removed or no lagoon is in place and is then washed into water bodies |
| Low Dissolved Oxygen | Organic matter | Organic matter runoff from wetlands / forest accumulates and then builds up when not properly secured or disposed and direct / lateral leaf litter |
| Low Dissolved Oxygen | Agriculture runoff | Pesticides / Fertilizer runoff causes nutrient build-up in water bodies |
| Low Dissolved Oxygen | Improper methods of trash collection and disposal | Spillage and incorrect disposal of substances into the water bodies or on the surface that is washed into drainage systems or water bodies |
| Low Dissolved Oxygen | Silviculture | Possible introduction of sediment from normal practices and stream crossings when BMP's are not followed.<br>Possible cause of decline in available oxygen resulting from removal of over story trees w/in SMZ resulting in increase in stream temperatures. Leaving logging debris in streams.<br>Possible introduction of nitrogen and phosphorous from fertilization practices. |

## MANAGEMENT MEASURES, RESPONSIBLE PARTIES, AND MEASURABLE MILESTONES

| Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Well and Septic Ordinances | Berrien County | Onsite permit process for well and septic tanks | | Enforced | Regulatory |
| | City of Enigma | | | Enforced | Regulatory |
| | City of Nashville | | | Enforced | Regulatory |
| | Tift County | | | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Septic systems | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Continued compliance with well / septic installation / repair / maintenance. Any public service site is tested on a routine basis to maintain a healthy site. Inspections on private services are checked on a complaint basis only. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Building Codes | Berrien County | Building codes initiate site plan procedures for all forms of land development. This indirectly reduces increased levels of DO and fecal coliform in streams, i.e. building front, side, and rear setbacks and voluntary conservation easements on privately owned property. An example of a nonstructural BMP is sediment controls and slope gradient measures. | 1999 | Enforced | Regulatory |
| | City of Enigma | | 1999 | Enforced | Regulatory |
| | City of Nashville | | | Enforced | Regulatory |
| | Tift County | | | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Permit required for construction. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Land Subdivision Ordinance | Berrien County<br>City of Nashville<br>Tift County | Land Subdivision Ordinances initiate plan review for proposed subdivision. This typically includes sedimentation and water control measures. The lot size of land plays an important role in the amount of runoff that comes from urban and rural areas, i.e. storm water runoff and septic tank leaks or overflow. | 2001 | Enforced<br>Enforced<br>Enforced | Regulatory<br>Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Periodic reassessment of effectiveness of ordinance.<br>The ordinances are updated on a periodic basis as developments progress. This is done to prevent overgrowth of developments. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Zoning Ordinance | Berrien County<br>City of Enigma<br>City of Nashville<br>Tift County | To divide an area into zones or sections reserved for different purposes such as residence, business, and manufacturing to best suit the growth and land uses, also to help with the protection of sensitive areas such as water sources.<br><br>Promotion of the proper location, height, stories, and size of open spaces along with the density and land uses. | 2002<br>2000 | Pending<br>Pending<br>Enforced<br>Enforced | Regulatory<br>Regulatory<br>Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Periodic reassessment of effectiveness of ordinance. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Groundwater Recharge Area Development | Berrien County<br>City of Nashville<br>Tift County | Georgia Planning Act Part V: Environmental Criteria.<br>This ordinance regulates development of areas designated as high pollution susceptibility due to their location in the regional landscape. A BMP for groundwater protection is sand filters such as vegetation or sand to filter and settle pollutants. | 2001<br>2001<br>2000 | Enforced<br>Enforced<br>Enforced | Regulatory<br>Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff and illegal dumping of trash | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Ongoing protection of sensitive land open for development. | Continuous | | SGRDC assists with the administration of this code.<br>Groundwater Recharge areas area very sensitive to pollution and directly effect the quality of all water sources that are related to them. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Local Wetlands Policy Ordinance | Berrien County<br>City of Enigma<br>City of Nashville<br>Tift County | Georgia Planning Act Part V: Environmental Criteria.<br>This ordinance regulates development of areas designated as wetlands as defined by the U.S. Army Corps of Engineers as jurisdictional wetlands. | 2001<br>2001<br>2001<br>2000 | Enforced<br>Enforced<br>Enforced<br>Enforced | Regulatory<br>Regulatory<br>Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff and illegal dumping of trash | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Ongoing protection of sensitive land not open for development. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Protected River Corridor Plan | Berrien County | Georgia Planning Act Part V: Environmental Criteria. | 2001 | Enforced | Regulatory |
| Ordinance | Tift County | This ordinance regulates development of areas designated as protected river corridors as they related to development and disturbance of land along protected river corridors. | 2001 | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff and illegal dumping of trash | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Ongoing protection of sensitive land open for development along identified river corridors. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Floodplain Management Ordinance | City of Nashville | 100 year / 500 year flood levels are shown on FEMA flood maps | | Enforced | Regulatory |
| | Tift County | | | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| N/A | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Local Soil and Sedimentation Ordinance | Berrien County<br>City of Nashville<br>Tift County | Regulation of BMP's for development<br>Erosion and Sedimentation Control Act (GESA). Requires permits for "land disturbing activities" and requires buffers to be maintained between the land disturbing activity and waters of the state. | | Enforced<br>Enforced<br>Enforced | Regulatory<br>Regulatory<br>Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Continued enforcement of ordinance will ensure less sedimentation in water bodies. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Suwannee River Basin Management Plan | Georgia Department of Natural Resources | Detailed management plans for the Suwannee River Basin. The purpose of the plan is to develop and implement a basin-planning program to protect, enhance and restore the waters for the State of Georgia, which will provide for effective monitoring, allocation, use, regulation, and management of water resources. | Final draft pending approval March 2002 | Pending State approval | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Various Sources | Very Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| 1. Implement Monitoring Plan and Compile Detailed Information/Data. | 2003- 2004 | | |
| 2. Analyze and Evaluate Detailed Information, Update Basin Assessment and Priority Issues List, Develop Strategies for Priority Issues, and Stakeholder meeting. | 2004- 2005 | | |
| 3. Continue to Develop Strategies for Priority Issues and Prepare and Update Draft River Basin Plan. | 2005- 2006 | | |
| 4. Agency and Public Review and Hearings, Finalize River Basin Plan, Implement River Basin Plan, and Stakeholder meeting. | 2006- 2007 | | |
| 5. Continue to Implement River Basin Plan and Stakeholder meeting. | 2007- Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Establish the Natural Range of Dissolved Oxygen Levels in Streams of the South Georgia Coastal Plain | Georgia DNR-EPD | An extensive stream-monitoring program to establish the DO range naturally occurring during critical stream flow conditions in the South Georgia Coastal Plain. | Spring 2003 | Grant Applied Conditionally approved per revisions of proposal | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Naturally Occurring | Very Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Three years of bi-weekly water quality and hydrologic parameter monitoring at a maximum of 60 locations. Annual characterization of study stream morphology; semiannual long term BOD; semiannual benthic and periphyton respiration by respirometer. Evaluation and characterization of study watersheds to establish the dynamics affecting DO in each watershed. | Expected start, Spring 2003; Expected end, Spring 2006 | | Piscola Creek watershed monitoring data collected in the past four years show that in summer months 8 highly enriched streams in the midst of intensive livestock and row-crop production have much higher DO values than a comparison "reference" stream. These and other data collected by UGA and USDA-ARS scientists have lead the hypothesis that a combination of high summer-time temperatures, low flows, and high loads of organic carbon contributed by riparian vegetation contribute to naturally low DO levels in unimpacted Coastal Plain streams. A proposal to establish an extensive stream-monitoring program to establish the natural range of DO at critical flow conditions has been submitted to Georgia DNR-EPD administered U.S. Environmental Protection Agency's Clean Water Act Section 319(h) Grant Program. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Georgia Forestry Commission | State of Georgia | A set of guidelines to better protect Georgia's streams and other water bodies from forestry non-point source pollution (primarily erosion and sedimentation). | Ongoing | Ongoing | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Forestry Runoff | Very Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Some Best Management Practices (BMP's) for forestry to minimize erosion and stream sedimentation from forestry practices are: timber harvesting, chemical treatments, controlled burning, and streamside management.<br>In 1998, 98% of the 43,906 acres that were evaluated were in compliance with the BMP's.<br>In 1992, the stream compliance was 95.5%.<br>The goal is to meet 100% compliance with each BMP. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Federal Clean Water Act Section 404 | EPA (situations involving forestry are normally referred to the GFC to determine compliance with this regulation) | Requires normal ongoing agricultural and silvicultural practice to adhere to BMP's 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. | June 6, 1988 | Current | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Sediment from dredge or fill activities | Agriculture and silviculture | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| GFC can report status on accomplishments or complaints investigated involving this act to the RDC as needed. | Continuous | | EPA identifies silviculture as the lowest contribution source of non-point pollution |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Memo to the Field: Application of BMP's to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast | 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. | November 1995 | Current | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Biota, habitat | Silviculture | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| GFC can provide status reports as needed | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Federal Farm Bill (Swamp buster) | US Department of Agriculture Natural Resource Conservation Service | Prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture | | Current | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Biota (habitat) | Agriculture | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Status reports can be provided as needed | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Georgia Water Quality Control Act (OCGA 12-5-20) | GA DNR EPD | Makes it unlawful to discharge excessive pollutants (sediments, nutrients, pesticides, animal waste, 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. | 1964 | Current | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Sediments, nutrients, pesticides, and habitat | Silviculture | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| GFC investigates and mediates silvicultural complaints on behalf of EPD. Unresolved complaints are turned over to EPD for enforcement. Status reports can be provided to RDC as needed. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| GA Growth Planning Act (OCGA 12-2-8) | GA DNR, Department of Community Affairs, and local units of government | Authorized GA DNR to develop minimum planning standards and procedures that local jurisdictions could adopt and enforce pertaining to the protection of river corridors, mountaintops, water supply watersheds/reservoirs, groundwater recharge areas, and wetlands. Silvicultural activities may be exempted from permitting requirements provided the activity complies with BMP's | 1991 | Local jurisdictions have to adopt ordinances to address these areas | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Biota, habitat, sediment | Silviculture | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| GFC can determine applicability and BMP implementation for local units of government. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Farm Bill 2002 | Natural Resources Conservation Service (NRCS) | The Farm Security and Rural Investment Act of 2002 is landmark legislation for conservation funding and for focusing on environmental issues. The conservation provisions will assist farmers and ranchers in meeting environmental challenges on their land. This legislation simplifies existing programs and creates new programs to address high priority environmental and production goals. The 2002 Farm Bill enhances the long-term quality of our environment and conservation of our natural resources. | 2002 | Current | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Various Sources | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| N/A | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Farm Services Agency | State of Georgia / Local FSA | Stabilizing farm income, helping farmers conserve land and water resources, providing credit to new or disadvantaged farmers and ranchers, and helping farm operations recover from the effects of disaster are the missions of the U.S. Department of Agriculture's Farm Service Agency (FSA). | Ongoing | Ongoing | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Agriculture | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| The 1996 Act removed the link between income support payments and farm prices by providing for a one-time sign-up for a Production Flexibility Contract whereby producers receive seven annual fixed but declining production flexibility contract payments through 2002. This program, entitled the Agricultural Market Transition Act (AMTA), reflects FSA's direction over the next seven years whereby farm commodity prices will be largely determined by market factors, rather than government subsidies and production controls. To receive payments and loans on program commodities, producers must have entered into a 7-year contract by August 1, 1996. More than 98 percent of the eligible acres enrolled. Program commodities include wheat, corn, sorghum, barley, oats, upland cotton, and rice. The contract requires producers to comply with existing conservation plans for the farm, wetland provisions, and planting flexibility provisions, as well as to keep the land in agricultural use. Except for fruits and vegetables, any commodity or crop may be planted on contract acreage on a farm. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Conservation Reserve Program (CRP) | United States Department of Agriculture (USDA) | The Conservation Reserve Program (CRP) provides technical and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. The program provides assistance to farmers and ranchers in complying with Federal, State, and tribal environmental laws, and encourages environmental enhancement. The program is funded through the Commodity Credit Corporation (CCC). The Conservation Reserve Program reduces soil erosion, protects the Nation's ability to produce food and fiber, reduces sedimentation in streams and lakes, improves water quality, establishes wildlife habitat, and enhances forest and wetland resources. It encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as tame or native grasses, wildlife plantings, trees, filter strips, or riparian buffers. Farmers receive an annual rental payment for the term of the multi-year contract. Cost sharing is provided to establish the vegetative cover practices. | | Current | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Various Sources | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| CRP is administered by the Farm Service Agency, with NRCS providing technical land eligibility determinations, Environmental Benefit Index Scoring, and conservation planning. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Environmental Quality Incentives Program (EQIP) | United States Department of Agriculture (USDA) | The Environmental Quality Incentives Program (EQIP) was reauthorized in the Farm Security and Rural Investment Act of 2002 (Farm Bill) to provide a voluntary conservation program for farmers and ranchers that promotes agricultural production and environmental quality as compatible national goals. EQIP offers financial and technical help to assist eligible participants install or implement structural and management practices on eligible agricultural land. | | Current | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Various Sources | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| EQIP offers contracts with a minimum term that ends one year after the implementation of the last scheduled practices and a maximum term of ten years. These contracts provide incentive payments and cost-shares to implement conservation practices. Persons who are engaged in livestock or agricultural production on eligible land may participate in the EQIP program. EQIP activities are carried out according to an environmental quality incentives program plan of operations developed in conjunction with the producer that identifies the appropriate conservation practice or practices to address the resource concerns. The practices are subject to NRCS technical standards adapted for local conditions. The local conservation district approves the plan. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Manure Management Plan | Individual | A manure management plan can help provide the most use of the nutrients in manure while protecting the water quality, and meeting manure-handling requirements. | Ongoing | Ongoing | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Manure | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Keeping records of manure applications and continuous soil samples. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Nutrient Management Program | 7 Rivers RC & D, NRCS, and University of Georgia Extension Agent | Encourages and educates farmers on the correct usage and amount of fertilizers to maintain high yield and to lessen the impact of nitrates and phosphates to waterways. | 1991 | In-progress | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Nitrates and Phosphates Runoff | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Reduction in the measured amount of DO in impacted waterways | Continuous | | Utilized in this region due to high amount of farm production |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Pesticides Management Program | 7 Rivers RC & D, NRCS, and University of Georgia Extension Agent | Encourages and educates farmers on the correct usage and amount of pesticides to reduce the impact of pesticides in the waterways. | 1991 | In-progress | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Pesticides Runoff | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Reduction in the measured amount of DO in impacted waterways. | Continuous | | Utilized in this region due to high amount of farm production |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Soil Testing | University of Georgia Cooperative Extension Services and Individual | Soil samples are taken to determine what nutrients are needed for any agricultural or silvicultural use. This reduces or avoids any unnecessary applications of fertilizers, herbicides, pesticides, etc. so to minimize harmful runoff. | | Current | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Nitrates, Phosphates, Pesticides Runoff | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Soil samples are taken on a regular basis. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Tift County Community Greenspace Program | Tift County / Greenspace Advisory Committee | Greenspace means to permanently protect land and water, including agricultural and forestry land that is undeveloped. Some goals are: water quality protection for rivers, streams, and lakes; flood protection; wetlands protection; reduce erosion; and protection of riparian buffers | In-Progress | In-Progress | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Various Sources | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| The county's goal is to preserve at least 20 percent of its land area as permanent connected and open Greenspace.<br>Annual Progress Report. | 2002 | 2030 | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Tift County Scrap Tire Management Program | Tift County | To reduce the illegal dumping of tires by hiring an enforcement / education officer | In-Progress | In-Progress | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Illegal dumping of trash | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| N/A | 2002 | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Georgia Rules and Regulations Water Quality Control (391-3-6). | GA DNR EPD | Makes it unlawful to discharge excessive pollutants (sediments, nutrients, pesticides, animal waste, 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. | 1964 Revised June 2002 | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Industry/Non-industry Runoff | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Compliance with rules and various permits issued under rules. | Continuous | | N/A |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| South Georgia Multi-Jurisdictional Solid Waste Management Plan | Tift County | 10 Counties participate and currently seek to coordinate solid waste management activities throughout the South Georgia Region and to cooperate in the activities of local Comprehensive Plans. The prime focus here is the collection and disposal of waste in a manner, which prevents pollution of surface and sub-service water resources. | 1992 | In-progress | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Solid Waste | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| This management measure is currently being updated. | Continuous | | N/A |

## POTENTIAL FUNDING SOURCES

| Source | Responsible Authority | Status | Anticipated Funding Amount |
|---|---|---|---|
| 319 (h) Grant | EPD/State of Georgia | Must Apply | Unknown |
| Greenspace Funds | Georgia Department of Natural Resources | Must Apply | Unknown |
| Conservation Reserve Program | USDA | Must Apply | Unknown |
| Environmental Quality Incentive Program (EQIP) | Natural Resources Conservation Service | Must Apply | Unknown |
| Wildlife Habitat Incentive Program | Natural Resources Conservation Service | Must Apply | Unknown |
| Urban Resources Partnership (URP) | Forest Service, the Natural Resources Conservation Service, the National Park Service, the Environmental Protection Agency, and the Department of Housing and Urban Development | Must Apply | Unknown |
| Toxics Grant | Jessie Smith Noyes Foundation | Must Apply | Unknown |
| Sustainable Agriculture Grant | Jessie Smith Noyes Foundation | Must Apply | Unknown |
| Sustainable Communities Grant | Jessie Smith Noyes Foundation | Must Apply | Unknown |
| Progressive Fund | The Fund for Southern Communities | Must Apply | Unknown |
| Brownfields Assessment Demonstration Pilots | EPA Office of Solid Waste and Emergency Response | Must Apply | Unknown |
| Pollution Prevention Grants | EPA Office of Pollution Prevention and Toxics | Must Apply | Unknown |
| DCA Educational Outreach | Department of Community Affairs | Must Apply | Unknown |

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**MONITORING PLAN**

| Organization | Pollutants | Purpose/Description | Time Frame Start | Time Frame End | Status: (Previous, Current, Proposed) |
|---|---|---|---|---|---|
| Georgia Adopt-A-Stream Water Quality Monitoring | Low Dissolved Oxygen | To help educate and improve/or maintain a streams quality | TBA | TBA | Proposed |
| USGS Water Quality Testing | Low Dissolved Oxygen | Assess Water Quality | N/A | Continuous | Current |
| Local government Scrap Tire Management Program | Low Dissolved Oxygen | To reduce the illegal dumping of scrap tires, reduction in solid waste, and other environmental issues by hiring an enforcement / education officer to respond and monitor | TBA | TBA | Proposed for Berrien County<br>Current for Tift County |
| Local / County Governments Water Quality Testing | Low Dissolved Oxygen | Local testing to ensure quality on impaired streams as they relate to effluent discharge | N/A | Continuous | Ongoing |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) and USDA-ARS Southeast Watershed Laboratory Monitoring Program | Low Dissolved Oxygen | To study the water quality of the entire Suwannee Basin | N/A | N/A | Current |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) Monitoring Program | Low Dissolved Oxygen | 319 (h) grant to study dissolved oxygen | 2003 | 2006 | Grant applied |
| Georgia Forestry Commission (GFC) Forest Water Quality Program | Low Dissolved Oxygen, Biota | BMP Education<br>Complaint Investigation<br>BMP Monitoring monthly Assurance Exams | N/A | N/A | Current<br>Current<br>Proposed |

COMMENTS: On behalf of the stakeholders of the Suwannee River Basin, the South Georgia RDC suggest further studies on each of the streams that have been listed on the 303(d) list since there have been numerous concerns about when the samples were taken and the number of samples taken from each stream. We also feel that the natural range of dissolved oxygen levels in the streams of the South Georgia Coastal Plains need to be further studied and established specifically for this region. Until the standard is developed, there are currently several organizations that have been involved with monitoring studies related to this region and their data could be used to help develop a proper standard for this region.
Attached are photos of Hardy Mill Creek: Taken North of Coy Hancock Road, County Road 354.

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Hardy Mill Creek on Count Road 354.

Hardy Mill Creek North side along Co. Rd. 354.

Hardy Mill Creek North side along Co. Rd. 354.

Hardy Mill Creek North side along Co. Rd. 354.

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# Withlacoochee River

| NAME | LOCATION | MILES/AREA IMPACTED | CLASSIFICATION | PARTIALLY SUPPORTING/ NOT SUPPORTING (PS/NS) |
|---|---|---|---|---|
| **Withlacoochee River** | Hardy Mill Creek to New River | 17 | Fishing | Not Supporting |
| **PRIMARY COUNTY** | **SECONDARY COUNTY** | **SECOND RDC** | | **SOURCE (POINT/NON-POINT)** |
| Berrien | | | | Non-point |

| POLLUANTS | WATER QUALITY STANDARDS (WQS) | REQUIRED REDUCTION |
|---|---|---|
| Low DO | 5mg/l (daily average) 4 mg/l (minimum)<br>2.886 mg/l @ USGS 2317700 (EPA WQS) | 27% |

| TMDL ID # | DATE TMDL ESTABLISHED |
|---|---|
| | December 2001 |

## SIGNIFICANT STAKEHOLDERS

| Name/Organization | Address | City | State | Zip | Phone | E-mail |
|---|---|---|---|---|---|---|
| Hon. Gregg McClellan, Chairman, Berrien County | P.O. Box 446 | Nashville | GA | 31639 | (229) 686- 5421 | |
| Hon. James Boone, Mayor, City of Alapaha | P.O. Box 34 | Alapaha | GA | 31622 | (229) 532- 7475 | |
| Hon. Cecil Giddens, Mayor, City of Enigma | P.O. Box 98 | Enigma | GA | 31749 | (229) 533- 4185 | |
| Hon. Carl Camon, Mayor, City of Ray City | P.O. Box 128 | Ray City | GA | 31645 | (229) 455- 2501 | |
| Hon. Thomas Parr, Mayor, City of Nashville | P.O. Box 495 | Nashville | GA | 31639 | (229) 686- 5527 | |
| Dr. Van Whaler, Berrien County Administrator | P.O. Box 446 | Nashville | GA | 31639 | (229) 686- 5421 | |
| Jerry Griner, Street and Sanitation Superintendent, City of Nashville | P.O. Box 495 | Nashville | GA | 31639 | (229) 686- 5527 | |
| South Georgia RDC | 327 W. Savannah Ave. | Valdosta | GA | 31601 | (229) 333- 5277 | sgrdc@sgrdc.com |
| Hal Simpson -NRCS District Conservationist | 516-A County Farm Road | Nashville | GA | 31639 | (229) 686- 2363 | |
| Forrest Connelly- Berrien County Extension Coordinator | 516-A County Farm Road | Nashville | GA | 31639 | (229) 686- 5431 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Bobby Mathis- Georgia Forestry Commission | 3011 US HWY 84 E | Valdosta | GA | 31606 | (229) 333- 7817 | bmathis@gfc.state.ga.us |
| Georgia Farm Services Agency | Federal Building<br>Room 102<br>355 East Hancock Avenue | Athens | GA | 30601 | (706) 546- 2266 | |
| Berrien County Farm Service Agency | Nashville Service Center<br>516-A County Farm Road Suite 3 | Nashville | GA | 31639 | (229) 686- 2363 | |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) | P.O. Box 748 | Tifton | GA | 31794 | (229) 386- 7274 | scrow@tifton.cpes.peachnet.edu |
| Berrien County 4-H | 516-A County Farm Road<br>Suite 1 | Nashville | GA | 31639 | (229) 686- 5431 | |
| Al Browning | P.O. Box 5023 | Nashville | GA | 31639 | (229) 686- 2821 | Labfarm1@yahoo.com |
| Georgia Forestry Commission | P.O. Box 819 | Macon | GA | 31202 | (478) 751-3485 | |
| Georgia Forestry Association | 500 Pinnacle Court, Ste. 505 | Norcross | GA | 30071 | (770) 416-7621 | |
| Southeastern Wood Producers | P.O. Box 9 | Hilliard | FL | 32046 | (904) 845-7133 | |

## EDUCATION/OUTREACH ACTIVITIES

| Responsible Organization or Entity | Description | Target Audience | Anticipated Dates (MM/YY) |
|---|---|---|---|
| US Fish and Wildlife | The U.S. Fish and Wildlife Service is the principal Federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people. The US Fish and Wildlife has numerous activities that relate to water quality, fish, sedimentation and many more that are available on their website. | Everyone | Current |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) | Research and education efforts to build a better environment for agriculture and rural America | Agriculture and rural America | Current |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) | 319 (h) grant to study dissolved oxygen | River Basins in the Southern Coastal Plain, Georgia | Grant applied |
| Upper Suwannee River Watershed Initiative (USRWI) | Non-Point organizations charged with education / outreach / water related activities within the Suwannee River Basin | Established organizations / clubs / citizens of the Suwannee River Basin | Will depend on group interests and funding sources |
| Seven Rivers Resource Conservation & Development | Non-Profit agency who's goal for environmental protection is to improve the water quality and quantity and preservation of the natural resources in the region | Local government officials / citizens / agricultural organizations | Current |
| South Georgia RDC | The SGRDC offers technical assistance with development regulations | Local government officials / Developers | In-progress |
| South Georgia RDC | To help assist with educational outreach to our local governmental jurisdictions, i.e. City, county and interested individuals | Local government officials / citizens | Current |
| Georgia Adopt-A-Stream | The SGRDC would like to see each school district team up with Georgia Adopt-A-Stream and commit to adopting a stream or streams within their county | Established organizations / clubs and/or those interested | Will depend on group interests and funding sources |
| South Georgia RDC / Berrien County School District | The SGRDC would help Berrien County School District target a group or club of interested students, educate them on the water issues that they are faced with, and to encourage them to participate in water monitoring | Established organizations / clubs and/or those interested | Will depend on group interests and funding sources |
| South Georgia RDC / Georgia Department of Community Affairs | Facilitate and educate outreach on water resource related activities, i.e. Water Resource Tool Kit and Water First Program | Local government officials / citizens | Current |

| | | | |
|---|---|---|---|
| University of Georgia 4-H Club, Berrien County | The mission of Georgia 4-H is to assist youth in acquiring knowledge, developing life skills, and forming attitudes that will enable them to become self-directing, productive and contributing members of society. This mission is accomplished, through "hands on" learning experiences, focused on agricultural and environmental issues, agriculture awareness, leadership, communication skills, foods and nutrition, health, energy conservation, and citizenship. | Students and youth | Current |
| Georgia Cooperative Extension Services, Berrien County | To provide timely, unbiased research-based information to the public as it relates to agricultural and family consumer science. To improve the quality of the life for all communities in the State of Georgia. The County Extension Agent's duty is to deliver new information and technology from the University of Georgia's Coastal Plain Research Center to the community. | Everyone | Current |
| Natural Resource Conservation Service (NRCS), Berrien County | The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment. | Everyone | Current |
| Georgia Forestry Commission | Conduct forestry Best Management Practices educational training at Master Timber Harvester and continuing logger education programs, civic programs, and landowner meetings. | Foresters, timber buyers and loggers, site preparation contractors, landowners | Continuous |

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## POTENTIAL POLLUTANT SOURCES

| Pollutant | Potential Source | Description of Contribution to Impairment |
|---|---|---|
| Low Dissolved Oxygen | Natural | Stream below critical conditions: High temperatures and low flow contribute to low levels of dissolved oxygen in the stream |
| Low Dissolved Oxygen | Urban / Rural Development Runoff | Urban runoff from the City of Nashville and including rural runoff that is washed away into nearby water sources, i.e. Chemical runoff from lawns, improper removal of trash, organic material such as leaves and yard trimmings, storm water runoff, fluids from parking areas, roads, and sediment erosion. |
| Low Dissolved Oxygen | Berrien County Spray Fields | Runoff from spray fields and broken spray heads |
| Low Dissolved Oxygen | Failing septic tanks | Effluent leakage due to overflowing sewage systems and leaking collection lines |
| Low Dissolved Oxygen | Animal waste | Animal waste that is deposited and then not properly removed or no lagoon is in place and is then washed into water bodies |
| Low Dissolved Oxygen | Organic matter | Organic matter runoff from wetlands / forest accumulates and then builds up when not properly secured or disposed and direct / lateral leaf litter |
| Low Dissolved Oxygen | Agriculture runoff | Pesticides / Fertilizer runoff causes nutrient build-up in water bodies |
| Low Dissolved Oxygen | Improper methods of trash collection and disposal | Spillage and incorrect disposal of substances into the water bodies or on the surface that is washed into drainage systems or water bodies |
| Low Dissolved Oxygen | Silviculture | Possible introduction of sediment from normal practices and stream crossings when BMP's are not followed.<br>Possible cause of decline in available oxygen resulting from removal of over story trees w/in SMZ resulting in increase in stream temperatures. Leaving logging debris in streams.<br>Possible introduction of nitrogen and phosphorous from fertilization practices. |

## MANAGEMENT MEASURES, RESPONSIBLE PARTIES, AND MEASURABLE MILESTONES

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Well and Septic Ordinances | Berrien County | Onsite permit process for well and septic tanks | | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Septic systems | Effective |

| Measurable Milestones | Schedule: Start | Schedule: End | Comments |
|---|---|---|---|
| Continued compliance with well / septic installation / repair / maintenance.<br>Any public service site is tested on a routine basis to maintain a healthy site.<br>Inspections on private services are checked on a complaint basis only. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Building Codes | Berrien County | Building codes initiate site plan procedures for all forms of land development. This indirectly reduces increased levels of DO and fecal coliform in streams, i.e. building front, side, and rear setbacks and voluntary conservation easements on privately owned property. An example of a nonstructural BMP is sediment controls and slope gradient measures. | 1999 | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Permit required for construction. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Land Subdivision Ordinance | Berrien County | Land Subdivision Ordinances initiate plan review for proposed subdivision. This typically includes sedimentation and water control measures. The lot size of land plays an important role in the amount of runoff that comes from urban and rural areas, i.e. storm water runoff and septic tank leaks or overflow. | 2001 | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Periodic reassessment of effectiveness of ordinance.<br>The ordinances are updated on a periodic basis as developments progress. This is done to prevent overgrowth of developments. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Zoning Ordinance | Berrien County | To divide an area into zones or sections reserved for different purposes such as residence, business, and manufacturing to best suit the growth and land uses, also to help with the protection of sensitive areas such as water sources.<br><br>Promotion of the proper location, height, stories, and size of open spaces along with the density and land uses. | 2002 | Pending | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Periodic reassessment of effectiveness of ordinance. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Groundwater Recharge Area Development | Berrien County | Georgia Planning Act Part V: Environmental Criteria.<br>This ordinance regulates development of areas designated as high pollution susceptibility due to their location in the regional landscape. A BMP for groundwater protection is sand filters such as vegetation or sand to filter and settle pollutants. | 2001 | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff and illegal dumping of trash | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Ongoing protection of sensitive land open for development. | Continuous | | SGRDC assists with the administration of this code.<br>Groundwater Recharge areas area very sensitive to pollution and directly effect the quality of all water sources that are related to them. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Local Wetlands Policy Ordinance | Berrien County | Georgia Planning Act Part V: Environmental Criteria.<br>This ordinance regulates development of areas designated as wetlands as defined by the U.S. Army Corps of Engineers as jurisdictional wetlands. | 2001 | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff and illegal dumping of trash | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Ongoing protection of sensitive land not open for development. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Protected River Corridor Plan Ordinance | Berrien County | Georgia Planning Act Part V: Environmental Criteria.<br>This ordinance regulates development of areas designated as protected river corridors as they related to development and disturbance of land along protected river corridors. | 2001 | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff and illegal dumping of trash | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Ongoing protection of sensitive land open for development along identified river corridors. | Continuous | | SGRDC assists with the administration of this code |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Local Soil and Sedimentation Ordinance | Berrien County | Regulation of BMP's for development<br>Erosion and Sedimentation Control Act (GESA). Requires permits for "land disturbing activities" and requires buffers to be maintained between the land disturbing activity and waters of the state. | | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Urban/Rural Runoff | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Continued enforcement of ordinance will ensure less sedimentation in water bodies. | Continuous | | SGRDC assists with the administration of this code |

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| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Suwannee River Basin Management Plan | Georgia Department of Natural Resources | Detailed management plans for the Suwannee River Basin. The purpose of the plan is to develop and implement a basin-planning program to protect, enhance and restore the waters for the State of Georgia, which will provide for effective monitoring, allocation, use, regulation, and management of water resources. | Final draft pending approval March 2002 | Pending State approval | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen a | Various Sources | Very Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| 1. Implement Monitoring Plan and Compile Detailed Information/Data. | 2003- 2004 | | |
| 2. Analyze and Evaluate Detailed Information, Update Basin Assessment and Priority Issues List, Develop Strategies for Priority Issues, and Stakeholder meeting. | 2004- 2005 | | |
| 3. Continue to Develop Strategies for Priority Issues and Prepare and Update Draft River Basin Plan. | 2005- 2006 | | |
| 4. Agency and Public Review and Hearings, Finalize River Basin Plan, Implement River Basin Plan, and Stakeholder meeting. | 2006- 2007 | | |
| 5. Continue to Implement River Basin Plan and Stakeholder meeting. | 2007- Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Establish the Natural Range of Dissolved Oxygen Levels in Streams of the South Georgia Coastal Plain | Georgia DNR-EPD | An extensive stream-monitoring program to establish the DO range naturally occurring during critical stream flow conditions in the South Georgia Coastal Plain. | Spring 2003 | Grant Applied Conditionally approved per revisions of proposal | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Naturally Occurring | Very Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Three years of bi-weekly water quality and hydrologic parameter monitoring at a maximum of 60 locations. Annual characterization of study stream morphology; semiannual long term BOD; semiannual benthic and periphyton respiration by respirometer. Evaluation and characterization of study watersheds to establish the dynamics affecting DO in each watershed. | Expected start, Spring 2003; Expected end, Spring 2006 | | Piscola Creek watershed monitoring data collected in the past four years show that in summer months 8 highly enriched streams in the midst of intensive livestock and row-crop production have much higher DO values than a comparison "reference" stream. These and other data collected by UGA and USDA-ARS scientists have lead the hypothesis that a combination of high summer-time temperatures, low flows, and high loads of organic carbon contributed by riparian vegetation contribute to naturally low DO levels in unimpacted Coastal Plain streams. A proposal to establish an extensive stream-monitoring program to establish the natural range of DO at critical flow conditions has been submitted to Georgia DNR-EPD administered U.S. Environmental Protection Agency's Clean Water Act Section 319(h) Grant Program. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status (In-progress, Planning, Enforced) | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Georgia Forestry Commission | State of Georgia | A set of guidelines to better protect Georgia's streams and other water bodies from forestry non-point source pollution (primarily erosion and sedimentation). | Ongoing | Ongoing | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Forestry Runoff | Very Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| Some Best Management Practices (BMP's) for forestry to minimize erosion and stream sedimentation from forestry practices are: timber harvesting, chemical treatments, controlled burning, and streamside management.<br>In 1998, 98% of the 43,906 acres that were evaluated were in compliance with the BMP's.<br>In 1992, the stream compliance was 95.5%.<br>The goal is to meet 100% compliance with each BMP. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Federal Clean Water Act Section 404 | EPA (situations involving forestry are normally referred to the GFC to determine compliance with this regulation) | Requires normal ongoing agricultural and silvicultural practice to adhere to BMP's 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. | June 6, 1988 | Current | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Sediment from dredge or fill activities | Agriculture and silviculture | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| GFC can report status on accomplishments or complaints investigated involving this act to the RDC as needed. | Continuous | | EPA identifies silviculture as the lowest contribution source of non-point pollution |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Memo to the Field: Application of BMP's to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast | 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. | November 1995 | Current | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Biota, habitat | Silviculture | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| GFC can provide status reports as needed | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Federal Farm Bill (Swamp buster) | US Department of Agriculture Natural Resource Conservation Service | Prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture | | Current | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Biota (habitat) | Agriculture | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Status reports can be provided as needed | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Georgia Water Quality Control Act (OCGA 12-5-20) | GA DNR EPD | Makes it unlawful to discharge excessive pollutants (sediments, nutrients, pesticides, animal waste, 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. | 1964 | Current | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Sediments, nutrients, pesticides, and habitat | Silviculture | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| GFC investigates and mediates silvicultural complaints on behalf of EPD. Unresolved complaints are turned over to EPD for enforcement. Status reports can be provided to RDC as needed. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| GA Growth Planning Act (OCGA 12-2-8) | GA DNR, Department of Community Affairs, and local units of government | Authorized GA DNR to develop minimum planning standards and procedures that local jurisdictions could adopt and enforce pertaining to the protection of river corridors, mountaintops, water supply watersheds/reservoirs, groundwater recharge areas, and wetlands. Silvicultural activities may be exempted from permitting requirements provided the activity complies with BMP's | 1991 | Local jurisdictions have to adopt ordinances to address these areas | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Biota, habitat, sediment | Silviculture | Effective |

| Measurable Milestones | Schedule Start | Schedule End | Comments |
|---|---|---|---|
| GFC can determine applicability and BMP implementation for local units of government. | Continuous | | |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Farm Bill 2002 | Natural Resources Conservation Service (NRCS) | The Farm Security and Rural Investment Act of 2002 is landmark legislation for conservation funding and for focusing on environmental issues. The conservation provisions will assist farmers and ranchers in meeting environmental challenges on their land. This legislation simplifies existing programs and creates new programs to address high priority environmental and production goals. The 2002 Farm Bill enhances the long-term quality of our environment and conservation of our natural resources. | 2002 | Current | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Various Sources | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| N/A | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Farm Services Agency | State of Georgia / Local FSA | Stabilizing farm income, helping farmers conserve land and water resources, providing credit to new or disadvantaged farmers and ranchers, and helping farm operations recover from the effects of disaster are the missions of the U.S. Department of Agriculture's Farm Service Agency (FSA). | Ongoing | Ongoing | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Agriculture | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| The 1996 Act removed the link between income support payments and farm prices by providing for a one-time sign-up for a Production Flexibility Contract whereby producers receive seven annual fixed but declining production flexibility contract payments through 2002. This program, entitled the Agricultural Market Transition Act (AMTA), reflects FSA's direction over the next seven years whereby farm commodity prices will be largely determined by market factors, rather than government subsidies and production controls. To receive payments and loans on program commodities, producers must have entered into a 7-year contract by August 1, 1996. More than 98 percent of the eligible acres enrolled. Program commodities include wheat, corn, sorghum, barley, oats, upland cotton, and rice. The contract requires producers to comply with existing conservation plans for the farm, wetland provisions, and planting flexibility provisions, as well as to keep the land in agricultural use. Except for fruits and vegetables, any commodity or crop may be planted on contract acreage on a farm. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Conservation Reserve Program (CRP) | United States Department of Agriculture (USDA) | The Conservation Reserve Program (CRP) provides technical and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. The program provides assistance to farmers and ranchers in complying with Federal, State, and tribal environmental laws, and encourages environmental enhancement. The program is funded through the Commodity Credit Corporation (CCC). The Conservation Reserve Program reduces soil erosion, protects the Nation's ability to produce food and fiber, reduces sedimentation in streams and lakes, improves water quality, establishes wildlife habitat, and enhances forest and wetland resources. It encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as tame or native grasses, wildlife plantings, trees, filter strips, or riparian buffers. Farmers receive an annual rental payment for the term of the multi-year contract. Cost sharing is provided to establish the vegetative cover practices. | | Current | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Various Sources | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| CRP is administered by the Farm Service Agency, with NRCS providing technical land eligibility determinations, Environmental Benefit Index Scoring, and conservation planning. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Environmental Quality Incentives Program (EQIP) | United States Department of Agriculture (USDA) | The Environmental Quality Incentives Program (EQIP) was reauthorized in the Farm Security and Rural Investment Act of 2002 (Farm Bill) to provide a voluntary conservation program for farmers and ranchers that promotes agricultural production and environmental quality as compatible national goals. EQIP offers financial and technical help to assist eligible participants install or implement structural and management practices on eligible agricultural land. | | Current | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Various Sources | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| EQIP offers contracts with a minimum term that ends one year after the implementation of the last scheduled practices and a maximum term of ten years. These contracts provide incentive payments and cost-shares to implement conservation practices. Persons who are engaged in livestock or agricultural production on eligible land may participate in the EQIP program. EQIP activities are carried out according to an environmental quality incentives program plan of operations developed in conjunction with the producer that identifies the appropriate conservation practice or practices to address the resource concerns. The practices are subject to NRCS technical standards adapted for local conditions. The local conservation district approves the plan. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Manure Management Plan | Individual | A manure management plan can help provide the most use of the nutrients in manure while protecting the water quality, and meeting manure-handling requirements. | Ongoing | Ongoing | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Manure | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Keeping records of manure applications and continuous soil samples. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Nutrient Management Program | 7 Rivers RC & D, NRCS, and University of Georgia Extension Agent | Encourages and educates farmers on the correct usage and amount of fertilizers to maintain high yield and to lessen the impact of nitrates and phosphates to waterways. | 1991 | In-progress | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Nitrates and Phosphates Runoff | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Reduction in the measured amount of DO in impacted waterways | Continuous | | Utilized in this region due to high amount of farm production |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Pesticides Management Program | 7 Rivers RC & D, NRCS, and University of Georgia Extension Agent | Encourages and educates farmers on the correct usage and amount of pesticides to reduce the impact of pesticides in the waterways. | 1991 | In-progress | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Pesticides Runoff | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Reduction in the measured amount of DO in impacted waterways. | Continuous | | Utilized in this region due to high amount of farm production |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Soil Testing | University of Georgia Cooperative Extension Services and Individual | Soil samples are taken to determine what nutrients are needed for any agricultural or silvicultural use. This reduces or avoids any unnecessary applications of fertilizers, herbicides, pesticides, etc. so to minimize harmful runoff. | | Current | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Nitrates, Phosphates, Pesticides Runoff | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Soil samples are taken on a regular basis. | Continuous | | Utilized in this region due to high amount of farm production. |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| Georgia Rules and Regulations Water Quality Control (391-3-6). | GA DNR EPD | Makes it unlawful to discharge excessive pollutants (sediments, nutrients, pesticides, animal waste, 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. | 1964 Revised June 2002 | Enforced | Regulatory |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Industry/Non-industry Runoff | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| Compliance with rules and various permits issued under rules. | Continuous | | N/A |

| Regulation/Ordinance or Management Measure | Responsible Government, Organization or Entity | Description | Enacted/ Projected Date | Status | Regulatory/ Voluntary |
|---|---|---|---|---|---|
| South Georgia Multi-Jurisdictional Solid Waste Management Plan | Berrien County | 10 Counties participate and currently seek to coordinate solid waste management activities throughout the South Georgia Region and to cooperate in the activities of local Comprehensive Plans. The prime focus here is the collection and disposal of waste in a manner, which prevents pollution of surface and sub-service water resources. | 1992 | In-progress | Voluntary |

| Pollutant(s) Affected | Potential Sources of Pollutant(s) | Anticipated or Past Effectiveness |
|---|---|---|
| Low Dissolved Oxygen | Solid Waste | Effective |

| Measurable Milestones | Schedule | | Comments |
|---|---|---|---|
| | Start | End | |
| This management measure is currently being updated. | Continuous | | N/A |

## POTENTIAL FUNDING SOURCES

| Source | Responsible Authority | Status | Anticipated Funding Amount |
|---|---|---|---|
| 319 (h) Grant | EPD/State of Georgia | Must Apply | Unknown |
| Greenspace Funds | Georgia Department of Natural Resources | Must Apply | Unknown |
| Conservation Reserve Program | USDA | Must Apply | Unknown |
| Environmental Quality Incentive Program (EQIP) | Natural Resources Conservation Service | Must Apply | Unknown |
| Wildlife Habitat Incentive Program | Natural Resources Conservation Service | Must Apply | Unknown |
| Urban Resources Partnership (URP) | Forest Service, the Natural Resources Conservation Service, the National Park Service, the Environmental Protection Agency, and the Department of Housing and Urban Development | Must Apply | Unknown |
| Toxics Grant | Jessie Smith Noyes Foundation | Must Apply | Unknown |
| Sustainable Agriculture Grant | Jessie Smith Noyes Foundation | Must Apply | Unknown |
| Sustainable Communities Grant | Jessie Smith Noyes Foundation | Must Apply | Unknown |
| Progressive Fund | The Fund for Southern Communities | Must Apply | Unknown |
| Brownfields Assessment Demonstration Pilots | EPA Office of Solid Waste and Emergency Response | Must Apply | Unknown |
| Pollution Prevention Grants | EPA Office of Pollution Prevention and Toxics | Must Apply | Unknown |
| DCA Educational Outreach | Department of Community Affairs | Must Apply | Unknown |

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**MONITORING PLAN**

| Organization | Pollutants | Purpose/Description | Time Frame Start | Time Frame End | Status: (Previous, Current, Proposed) |
|---|---|---|---|---|---|
| Georgia Adopt-A-Stream Water Quality Monitoring | Low Dissolved Oxygen | To help educate and improve/or maintain a streams quality | TBA | TBA | Proposed |
| USGS Water Quality Testing | Low Dissolved Oxygen | Assess Water Quality | N/A | Continuous | Current |
| Local government Scrap Tire Management Program | Low Dissolved Oxygen | To reduce the illegal dumping of scrap tires, reduction in solid waste, and other environmental issues by hiring an enforcement / education officer to respond and monitor | TBA | TBA | Proposed |
| Local / County Governments Water Quality Testing | Low Dissolved Oxygen | Local testing to ensure quality on impaired streams as they relate to effluent discharge | N/A | Continuous | Ongoing |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) and USDA-ARS Southeast Watershed Laboratory Monitoring Program | Low Dissolved Oxygen | To study the water quality of the entire Suwannee Basin | N/A | N/A | Current |
| National Environmentally Sound Production Agriculture Laboratory (NESPAL) Monitoring Program | Low Dissolved Oxygen | 319 (h) grant to study dissolved oxygen | 2003 | 2006 | Grant applied |
| Georgia Forestry Commission (GFC) Forest Water Quality Program | Low Dissolved Oxygen, Biota | BMP Education<br>Complaint Investigation<br>BMP Monitoring monthly Assurance Exams | N/A | N/A | Current<br>Current<br>Proposed |

COMMENTS: On behalf of the stakeholders of the Suwannee River Basin, the South Georgia RDC suggest further studies on each of the streams that have been listed on the 303(d) list since there have been numerous concerns about when the samples were taken and the number of samples taken from each stream. We also feel that the natural range of dissolved oxygen levels in the streams of the South Georgia Coastal Plains need to be further studied and established specifically for this region. Until the standard is developed, there are currently several organizations that have been involved with monitoring studies related to this region and their data could be used to help develop a proper standard for this region.
Attached are photos of the Withlacoochee River: Taken North and South of County Road 354.
Attached are photos of the Withlacoochee River: Taken North and South of Hwy 76.

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Withlacoochee River on Co. Rd. 354.

Withlacoochee River South side of Co. Rd. 354.

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Withlacoochee River South side of Co. Rd. 354.

Withlacoochee River South side of Co. Rd. 354.

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Withlacoochee River looking east.

Withlacoochee River looking north.

Withlacoochee River looking south.

Withlacoochee River south side looking west.

Turtle in Withlacoochee River.

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The preparation of this report was financed in part through a grant from the U.S. Environmental Protection Agency under the provisions of Section 106 of the Federal Water Pollution Control Act, as amended.

**Environmental Protection Division of the Department of Natural Resources, State of Georgia.**