STATE OF GEORGIA
TIER 2 TMDL IMPLEMENTATION PLAN REVISION 1
Potato Creek Watershed
Flint River Basin

Local Watershed Governments
The Counties of Lamar, Pike, Spalding and Upson;
Select cities therein

I. INTRODUCTION

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

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

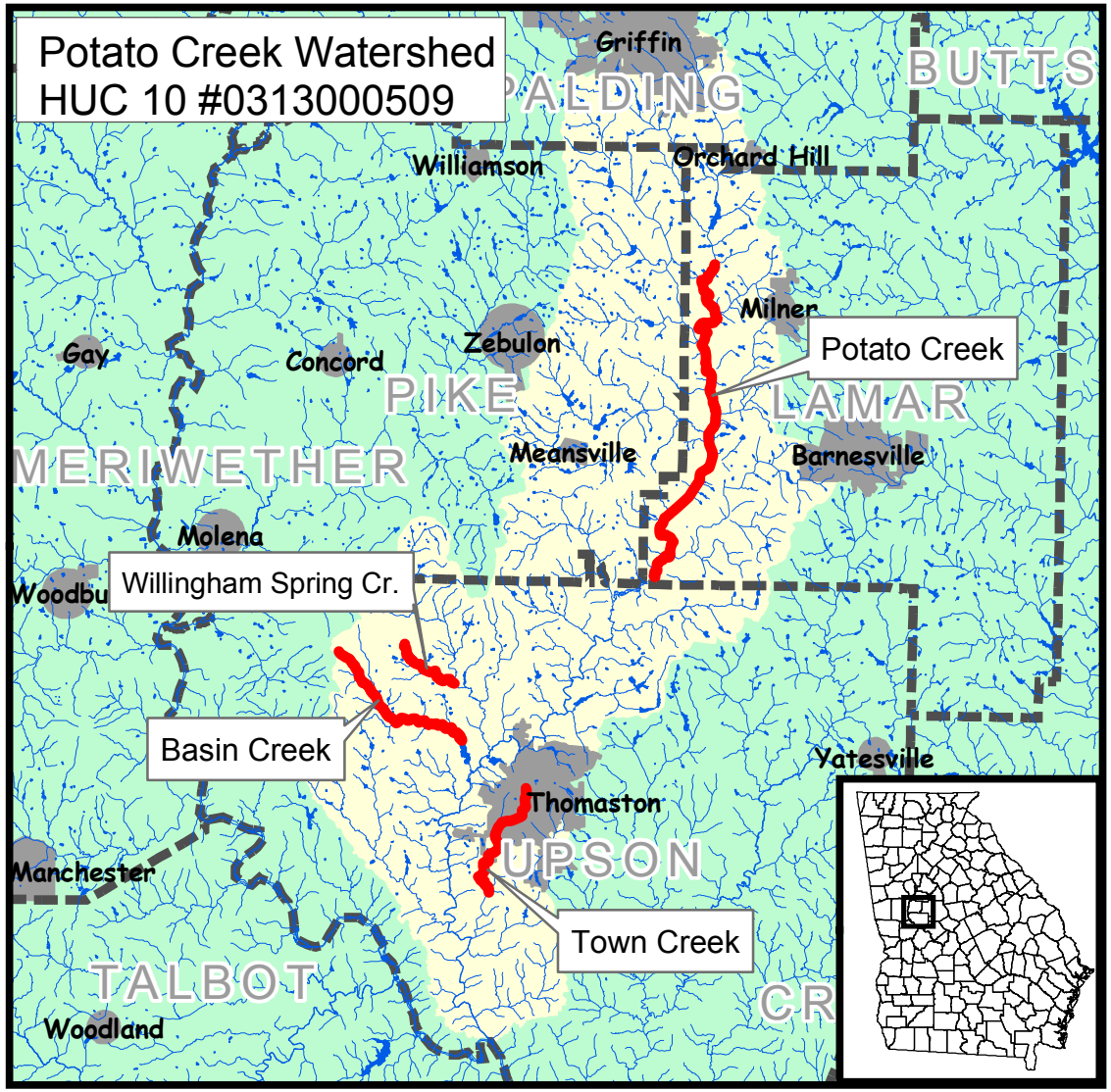


Table 1. IMPAIRMENTS

IMPAIRED STREAM SEGMENT	IMPAIRED SEGMENT LOCATION	IMPAIRMENT
Potato Creek	U.S. Hwy. 333 to Upson Co. Line	Fecal Coliform Bacteria
Town Branch	Thomaston	Biota (sediment)
Willingham Spring Creek	Upson County	Biota (sediment)
Basin Creek	Upson County	Biota (sediment)
Potato Creek +	Headwaters to US Hwy 333	Biota (sediment)
Bell Creek +	Headwaters, downstream Thomaston to Potato Cr.	Fecal Coliform Bacteria

+ RDC previously developed inventory for stream which will be used as plan.

II. GENERAL INFORMATION ABOUT THE WATERSHED

Write a narrative describing the watershed, HUC 10# 0313000509. Include an updated overview of watershed characteristics. Identify new conditions and verify or correct information in the TMDL document using the most current data. Include the size and location of the watershed, political jurisdictions, and physical features which could influence water quality. Describe the source and date of the latest land cover/use for the watershed. Describe and quantify major land uses and activities which could influence water quality. See the instructions for more information on what to include.

Overview

The total Potato Creek drainage basin is approximately 237 square miles in area, and stretches 30+ miles from Griffin, Georgia to the Flint River in Upson County. The creek is primarily classified for fishing but also serves as the public water supply for the City of Thomaston. Potato Creek has been the subject of multiple 303(d) listings; Violations with fecal and biota have driven the pollution issues, with suspicion that part of the fecal listing may have been generated over a specific incident and not indicative of the regular water quality.

The course for Potato Creek means the stream is subject to a combination of urban and rural extremes and the diversity of pollution hazards from these conditions. Most of the creek runs through rolling hillsides of once thriving agricultural parts of Lamar, Pike and Upson Counties. Several commercial chicken farms and cattle or dairy farms still operate within the watershed. In addition, there remains a vast amount of open land still used for passive farming, grazing or other private agricultural activity, plus the relatively natural landscape suggests a prevalence of wildlife, including deer, birds and waterfowl and more. Attempts to identify non-point source pollution within the Potato Creek watershed must stress the potential from animal sources.

The Towns Branch Creek watershed is the most urban of the sub-watersheds included in this TMDL as its headwaters are within the City of Thomaston. The main artery of the creek runs through the downtown business district, several older industrial properties northwest of downtown and an established urban neighborhood in the city's southwest corner. Most of the properties within this watershed are likely to have sewer service, including all those within the city limits, while those outside rely on septic systems. The few properties that are considered agricultural are unlikely to feature an actual agricultural use, however, and are essentially large residential lots.

Verification of TMDL Conditions

With the assistance of stakeholders and the local governments, the MTRDC tried to evaluate the accuracy of watershed conditions established in the TMDL. This included the collection of background information and performance of field surveys for comparison with and confirmation of the TMDL data.

Assessment of the land use characteristics was done comparing various GIS datasets with the information used in the original TMDL. The TMDL assessment of land coverage within the watershed was based on the Georgia Multiple Resolution Land Coverage (MRLC), which utilizes Landsat Thematic Mapper digital images developed in 1995 and updated in 2001. This coverage provides land use categories in a modified Anderson level one and two system. The comparable dataset used by the MTRDC is a 1996 land cover file produced by the Georgia Department of Natural Resources (DNR) using the same system (See map 1). For additional evaluation the

MTRDC also reviewed the most recent local Existing Land Use files for each community involved. These files are based on 2003 parcel-level records maintained by the MTRDC and based upon common zoning and land use classifications.

Basin Creek

	2001	1996
Open Water	0.13%	1.44%
Low Intensity Residential		0.01%
High Intensity Residential		
High Intensity Commercial/Industrial	0.16%	0.16%
Bare Rock, Sand and Clay		
Quarries, Strip Mines and Gravel Pits		
Transitional	0.18%	0.13%
Deciduous Forest	47.23%	43.91%
Evergreen Forest	10.79%	11.31%
Mixed Forest	22.42%	23.01%
Pasture/Hay	10.50%	12.02%
Row Crops	4.56%	4.82%
Other Grasses (Urban Recreational)	0.05%	0.04%
Woody Wetland	3.97%	3.15%
Emergent Herbaceous Wetlands		

The current state of the Basin creek watershed was found consistent with the conditions expressed in the land coverage files above. This is a largely rural area with limited development and a great deal of open space. There is some speculation of future residential development encroaching into this area, but that would be some time off and may not involve the intensity to greatly alter the volume of impervious surface. As such, there was also little land disturbance detected, with no large scale disturbance activities found.

Existing Land Use, 2003	
Undeveloped / Unused	
Agriculture / Residential	99.37%
Low Density Residential	
Medium Density Residential	0.15%
High Density Residential	0.48%
Commercial	
Public / Institutional	
Industrial	

There were no distinguishing activities or sites within this watershed, with the exception of a cabinetry shop (classified as a manufacturing land use) near the center of the watershed. The predominant use is large lot, rural residential with some properties used for grazing and livestock. The bulk of the properties exhibited natural, open settings with little land disturbance to speak of. Some dirt and stone roadways and driveways, particularly on private property with little means to evaluate their entire conditions.

An additional resource reviewed was the Source Water Assessment Program (SWAP) report performed by the MTRDC for the Potato Creek watershed in 2002. As part of a regional assessment of water supply resources, this purpose of this study was to identify and evaluate potential pollution sources within the watershed. These SWAP reports also evaluated land use and land cover characteristics as well as trends in development and water quality monitoring.

Field Surveys were also done to assess the state of the watershed and to identify conditions that might serve the impairment of the stream segment. Between February and May of 2004 MTRDC staff drove along every public roadway within the watershed, looking for land use and development activity near and along stream banks that might contribute to a pollution problem.

- **Conditions of riparian areas – Fair to good. Much of the watershed appears environmentally sound with no land disturbance.**
- **Conditions of stream banks – Fair. Several small sections of stream banks appear worn from erosion and intrusion, and there were sections of stream banks with limited growth (other than grasses) to filter runoff.**
- **Observe any fish – Yes, but considerably small numbers and sizes.**
- **Water quality and clarity – Fair to good. Some patches of the creek were cloudy.**
- **Ditches capable of draining into the stream – No manmade ditches detected.**
- **Buffer requirements – No violations of stream-buffer requirements were detected.**

{Basin Creek}

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

STREAM SEGMENT NAME	LOCATION	MILES/AREA	DESIGNATED USE	PS/NS
Basin Creek	Upson County	6 miles	Fishing	PS

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

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

Table 2. SOURCES OF IMPAIRMENT AS INDICATED IN TMDLs

PARAMETER 1	WQ STANDARD	SOURCES OF IMPAIRMENT	NEEDED REDUCTION FROM TMDL
Biota (Sediment)	All waters shall be free from material related to municipal, industrial or other discharges which produce turbidity, color, odor or other objectionable conditions which interfere with legitimate water uses.	Silviculture Agriculture Grazing areas Mining sites Roads Urban Development	9%

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

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

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

Narrative of Procedures
The following measures were employed to help identify and evaluate potential sources or causes of impairment:

Review of land cover/land use data **– The MTRDC worked with local tax and zoning offices to acquire and/or update land use and land cover information regarding the watershed. A 1996 land cover file was used for base information, which was then reviewed against parcel and development information current through March of 2004. Included in this assessment, where possible, was information concerning sewer service areas and the distribution of sewer lines. Where possible, data for impervious surface was used. Copies of this information were available for review at all public hearings and through the MTRDC offices.**

A major part of this step included the development of more specific data concerning general land use types, specifically clarifying properties that were categorized for agricultural or forestry or actually used for such purposes. Identifying sites with unique or special conditions related to their potential impact on water quality (such as discharge points) were also recognized for special field surveys. Additional amendments included updates of land use information, new subdivisions and/or lot splits, and identification of main sewer lines.

Field surveys **– MTRDC staff performed windshield surveys of the watershed and, where possible, walked along stream corridors. These surveys were used to verify land use/land cover information, to identify potential sources of impairment and to assess the overall quality of the watershed and stream banks. Procession along the stream corridors was prohibited in many areas due to private property/trespassing concerns, and concentrated on the arterial streams involved in the TMDL planning process.**

MTRDC staff traveled along most of the paved public roads within the watershed, noting areas that may exhibit the potential for significant pollution problems. Several concentrations of older housing that rely on septic systems were targeted for future monitoring, as well as open fields that harbor livestock and appear susceptible to runoff problems. Staff also walked along the banks for several portions of the stream below the reservoir, examining the general quality of the bank, clarity of the water and searching for potential sources of contamination. In some instances it appeared the removal of surrounding vegetation for newer residential development in the southernmost portions of the watershed left stream banks moderately exposed; Though buffers were maintained and erosion control measures were in place, the changes in general topography and ground cover allowed runoff to reach the stream must more quickly and directly.

Involvement of stakeholders **– (See also Section V, Stakeholders) During the initial outreach and field surveys, MTRDC staff interviewed various property owners and spoke with City of Griffin staff concerning potential pollution sources. In most instances the prevalence of wildlife and the possibility of leaking wastewater systems, septic or sewer, were raised. However, it should be**

noted that no leaks were found within the public sewer system in this watershed during the planning process or in recent history. Also, because the City is required to monitor the health of the Heads Creek watershed and maintain the quality of the water flowing from the reservoir, a larger portion of the focus for this plan shifted to the remainder of the Wildcat Creek watershed. An additional public hearing opportunity for general input on the plan was unattended in May.

Evaluation of sources **– For each impairment identified there are conditions that suggest specific sources for that impairment. With fecal coliform the potential sources must include the production and/or management of human or animal waste. Where the planning process for this TMDL identified potential pollution source conditions, such as septic systems, animal farms, etc, each site was evaluated for its potential contribution to the impairment. The following conditions are cited are potential sources contributing to the pollution problem:**

Silviculture – No form of forestry activity was observed during the field surveys. Some land has been reserved for this activity, but little forestry, if any at all, has occurred within the watershed or have appeared to impact the stream.

Agriculture – Several properties were used for hobby farms with some light land disturbance for crops. Some of the open plains suggested the potential for runoff to increase the delivery of soil and sediment into the streams, particularly along dirt roads or paths.

Grazing areas – As with agriculture, there were some properties reserved for this use but nothing of commercial scale. The grazing areas that were occupied with livestock did not exhibit much land disturbance or display direct access to stream banks.

Mining sites – No active mining was detected as part of this survey.

Roads – Several unpaved roads or driveways were found within the watershed. While most were well compacted and even, there were points of wear and erosion to suggest the dirt and debris could easily wash off the road surface. Only one stream crossing detected along the unpaved roads, which did not show undue wear or harm to the adjacent vegetation.

Urban Development – The only urban development within this watershed comes in the form of small clusters of residential properties. Little new development was found in to suggest land disturbance from new construction (one house, one out-building).

Additional field surveys beyond those allowed by this planning process must be done on a regular basis to monitor the potential impacts of the landfill and major developments. Property owners must also regularly monitor and maintain their individual septic systems, livestock fields and facilities, and soil applications to prevent the possibility of runoff contaminating local streams. Staff from the local Farm Bureau suggested that most, if not all, agricultural operations in the Griffin area are aware of best management practices and the critical nature of water quality in the Flint River Basin.

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

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

PARAMETER 1	POTENTIAL SOURCES	ESTIMATED EXTENT OF CONTRIBUTION	ESTIMATED MAGNITUDE OF CONTRIBUTION	COMMENTS
Biota (sediment)	Agriculture	Throughout the watershed, several properties used for farming.	Moderate	Notable amounts of farming activity that may contribute to soil exposure
Biota (sediment)	Roads	Several unpaved roads and drives throughout the watershed.	Moderate	Notable amounts of unpaved roads, some mining activity within the area.
Biota (sediment)	Grazing Areas	Throughout the watershed, particularly closer in to Thomaston	Moderate	Volume of open fields; Possible concerns in heavy rains.
Biota (sediment)	Mining	No sites active or showing visible surface erosion	Negligible	
Biota (sediment)	Urban Development	Some housing and limited commercial/industrial use (churches, one shop)	Negligible	Some new development and redevelopment in the area
Biota (sediment)	Silviculture	If at all, along the outer reaches of the watershed.	Negligible	Limited forestry taking place, but significant amounts of land reserved for this.

V. STAKEHOLDERS

PUBLIC INVOLVEMENT AND THE ACTIVE PARTICIPATION OF STAKEHOLDERS is essential to the process of preparing TMDL implementation plans and improving water quality. Stakeholders can provide valuable information and data regarding their community, impaired water bodies, potential causes of impairments, and management practices and activities which may be employed to reduce the impacts of the causes of impairment.
Describe outreach activities to advise and engage stakeholders in the TMDL implementation plan preparation process. Describe the stakeholder group employed or formed to address the impaired segments in the watershed. Summarize the results of the number of attendees and meetings and describe major findings, recommendations, and approvals.

Initial outreach to key stakeholders involved direct communication and surveys of potential water quality issues and one general public hearing in May that was unattended. Copies of the initial watershed evaluation, which included the basic watershed profile and preliminary assessment of potential sources of impairment, were made available for public review in June of 2004. Before the draft Plan is approved, continuing outreach regarding the TMDL planning process will include further public hearings and direct follow up with key stakeholders in the impacted communities.

Staff from the local county governments were consulted early in 2004 for input on the land use/land cover information while sewer system managers (authorities or the government) were contacted regarding the performance of the sewer system and potential sources of contamination. The various system managers will be regularly advised of all progress with the plan and feature strong input on the resulting management measures and activities.

The names of several businesses, land owners and other key stakeholders were sought from local officials, Farm Bureau offices and area Chambers of Commerce. Members of each were invited to meet with MTRDC staff and offer input, questions and comments in the initial outreach phase of the process. The draft plan will also be made available to these agencies and their members for additional review and comment.

The MTRDC has a standing Environmental Advisory Committee that proved critical to the development of the region's original TMDL implementation plans. In addition to least two representatives from each member county serving on the Committee, officials from local water and sewer authorities are regularly invited to participate, as well as other identified stakeholders as requested by local leaders. Members were consulted as part of the general outreach of this process and will be invited to comment, if not convene, for further review of the draft plan.

The MTRDC Board, which also features representation from all member counties, has also been appraised of the program efforts and allowed to comment and participate in the planning process, but no one from this board has made any suggestion regarding Wildcat Creek.

A consistency among the comments and recommendations was the suggestion that the violations shown in the original TMDL appear isolated in nature and may not be indicative of the stream's regular state. If there is in fact a consistent problem it was also suggested

that natural wildlife may be the largest contributor, specifically the local deer population. There was no immediate recognition of likely sources among agricultural operations or obvious leaks from septic or sewer systems, save for unconfirmed suggestions of possible problems associated with the wastewater land application site.

Final public hearings for all of the region's Tier 2 TMDL Plans were held on December 15, 2004 in Griffin and Thomaston. Only 2 persons from the general public attended each hearing, with no new comments presented. Local officials were also given till that day to comment on copies of the plans presented to them within the past month. Several comments suggesting amendments to policy measures and possible magnitudes of contribution from each source were discussed. Any and all comments received up to that day have been incorporated into the plan.

Another resource recommended for future inclusion is the recently formed Upper Flint River Basin Stakeholder Committee. Developed within the past year as a means to coordinate activism on behalf of the river and the watershed, this committee includes similar representation of local officials, private interest stakeholder groups, land owners and more. Their objective is to promote the welfare of the river and provide communication and education to inform area decision makers.

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

Table 4. COMMITTEE MEMBERS

NAME/ORG	ADDRESS	CITY	STATE	ZIP	PHONE	E-MAIL
Chuck Taylor, Spalding County	PO Box 1087	Griffin	GA	30224	770.467.4233	ctaylor@spaldingcounty.com
Hameed Malik, City of Griffin	PO Box T	Griffin	GA	30224	770.229.6424	hmalik@cityofgriffin.com
Mr. Van Whaler Butts County	25 Third Street, Suite 4	Jackson	GA	30233	770.775.8200	
Mr. Patrick Comiskey City of Thomaston	P. O. Box 672	Thomaston	GA	30286	706.647.4242	
Mr. Clay Ross City of Zebulon	P. O. Box 385	Zebulon	GA	30295	770.567.8748	
Mark Bryant Upson County	106 East Lee St. Suite 110	Thomaston	GA	30286	706.647.7012	
Mrs. Marcie Seleb Butts County Water Auhtority	P. O. Box 145	Jackson	GA	30233	770.775.0042	
Mr. Reggie Watson Barnesville Water Department	109 Forsyth Street	Barnesville	GA	30204		
Mr. Bobby Burnette Lamar County	326 Thomaston Street	Barnesville	GA	30204	770.358.5146	
Mr. Tommy Burnsed Interim County Manager	PO Box 377	Zebulon	GA	30295	770.567.3406	
Mr. Charles Absher Integrated Science and Engineering	275 South Lee Street	Fayetteville	GA	30214		

**** The above list represents those contacted regarding the TMDL plan as well as stakeholders nominated for inclusion in future efforts that may have not yet fully participated.***

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

VI. MANAGEMENT MEASURES AND ACTIVITIES

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

Table 5. MANAGEMENT MEASURES AND ACTIVITIES

GENERAL MEASURES APPLICABLE TO ALL PARAMETERS

MEASURE	RESPONSIBILITY	DESCRIPTION	SOURCE OF FUNDING	STATUS	ENACTED/ IMPLEMENTED	EFFECTIVENESS (Very, Moderate, Weak)
Local Codes/ Zoning Ordinances	*Local Governments*	*Environmental regulations and stream buffer requirements (DNR Part V)*	**NA**	**In Place**	***Before 2002***	**Very**
Development Regulations	*Local Governments*	*Minimum erosion and sedimentation control measures*	**NA**	**In Place**	***Before 2002***	**Moderate**
Land Use Planning	*Local Governments*	*Adopted Land Use/ Future Land Use plan*	**NA**	**In Place**	***Before 2002***	**Moderate**
Illicit Discharge Ordinances & regulations	*City of Griffin*	*Discharge permit standards; Water quality monitoring & testing; Reporting standards*	**NA**	**In Place**	***Proposed***	**Moderate**
Flint River Basin Plan	*Ga. EPD*	*State plan for monitoring and managing Flint River basin protective measures*	**NA**	**In Place**	**1997**	**Moderate**
Discharge Regulations	*Ga. EPD*	*Discharge permitting and management*	**NA**	**In Place**	**1995**	**Very**

NPDES Phase II MS4 Municipal Stormwater Permit	Local County Government	Requires jurisdiction to have a comprehensive stormwater program, which includes public education and participation, illicit discharge detection and elimination, construction site runoff control, post construction runoff control, pollution prevention, permitting and reporting, and program implementation plans.		Planning		The goals of this program are designed to improve water quality conditions and/or prevent further degradation of water quality and biotic integrity in the impaired stream corridor.
Local County Stormwater Management Ordinance	Local County	Control stormwater runoff to the MS4 within unincorporated areas of Clayton County				Provides consequences for illicit discharges and connections to the MS4.
Adopt the Georgia Stormwater Management Manual (GSMM)	Local County Government	Adopt the Georgia Stormwater Management Manual (GSMM) as the county's stormwater design manual. The county and cities may also develop an addendum to the manual which has county specific requirements that are not covered by the GSMM.		Planning		
Stormwater Ordinance	Local County Planning & Zoning	Ordinance to address non-point source pollution.				Gives the inspectors a way to address non-point source pollution that is discharged into the MS4 system.
Stormwater Management Audit / Assessment	Local County Government	Internal assessment of stormwater pollution prevention plan (map of facility and responsibilities for upkeep): including but not limited to septic system controls, storm drain system cleaning, stormwater detention basins maintenance, alternative products, hazardous materials storage, road salt application and storage, spill response and prevention, used oil recycling, materials management, leaking fluids from vehicles, and street sweeping.				The county needs to ensure that they are meeting all applicable stormwater requirements.
Stormwater BMP Guidance Document for Municipal Operations	Local County Government	Following the audit / assessment, prepare a BMP procedures and guidance manual for County and the cities' departments to minimize impact of municipal operations on stormwater runoff. This document should address all of the activities identified in the audit / assessment and focus on any common problem areas identified.				
Local County Land Development Guidelines	Local County	Includes stormwater quantity and quality requirements for new developments				Requires post-development controls for stormwater quantity and quality intended to reduce stormwater pollution loads from new developments.

MEASURES APPLICABLE TO INDIVIDUAL PARAMETERS

PARA-METER 1	MEASURE	RESPONSIBILITY	DESCRIPTION	SOURCE OF FUNDING	STATUS	ENACTED/ IMPLEMENT-ED	EFFECTIVENESS (Very, Moderate, Weak)
Biota-Sediment	Best Management Practices, erosion control	Local Governments, Ga Forestry	Review & promotion of implementation for erosion and sediment control efforts within watershed	Ga Forestry, DNR	Proposed	2006	Moderate - Very
Biota-Sediment	Inventory of land cover and surface conditions subject to sedimentation	Local Governments, MTRDC, DNR	Review of unpaved roads, soil conditions and land cover within the watershed with high potential for runoff	DNR	Proposed	2006	Weak
Biota-Sediment	Best Management Practices, road maintenance	Local Governments, DNR, DOT	Review and implementation of maintenance practices for unpaved roadways and driveways.	DNR, DOT	Proposed	2006	Moderate – Very
Biota-Sediment	Best Management Practices	Local Governments, Farm Bureau	Review & promotion of implementation for grazing and soil maintenance	DNR	Proposed	2006	Moderate - Very
Biota-Sediment	Federal Clean Water Act Section 404 (Ag and Forestry)	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 BMPs and 15 baseline provisions for road construction and maintenance in and across waters of the US including lakes, rivers, perennial and intermittent streams, wetlands, sloughs in order to qualify for the exemption from the permitting process.		Current	June 6, 1988	EPA identifies silviculture as the lowest contribution source of nonpoint pollution
Biota-Sediment	Memo to the Field: Application of BMPs to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast (Silviculture)	EPA/ US Army Corps of Engineers - (cases normally referred to GFC to make initial determination)	Identifies certain bottomland hardwood wetlands that should be subject to permitting if converting to pine plantations.		Current	November 1995	
Biota-Sediment	Federal Farm Bill (Swampbuster, Ag)	US Department of Agriculture Natural Resource Conservation Service	Prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture		Current		
Biota-Sediment	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			1991	

			corridors, mountain tops, water supply watersheds/reservoirs, groundwater recharge areas, and wetlands. Silvicultural activities may be exempted from permitting requirements provided the activity complies with BMPs				
Biota-Sediment	Georgia Forestry Commission Monthly BMP Assurance Examination	Georgia Forestry Commission (matters involving enforcement are generally referred to GA EPD)	In an effort to document "reasonable assurance" that water quality will be proactively protected during regular ongoing silvicultural operations, the GCF will offer a monthly BMP assurance examination of active sites. All active of ongoing sites will be identified either through monthly air patrol flights, courthouse records, riding the roads, notification or by landowners. Sites located within watersheds of specific biota (sediment) impaired streams will be given a higher priority to identify and conduct examinations.		Current	1/1/03	EPA identifies silviculture as the lowest contribution source of nonpoint pollution
Biota-Sediment	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.		Current	1964	
Biota-Sediment	Georgia's Best Management Practices	Georgia Forestry Commission (matters involving enforcement are generally referred to GA EPD)	Inform landowners, foresters, timber buyers, loggers site preparation and reforestation contractors and others involved with silvicultural operations about commonsense, economical effective practices to minimize nonpoint source and thermal pollution.		Current	1989, 1997	EPA identifies silviculture as the lowest contribution source of nonpoint pollution
Biota-Sediment	Land Disturbance Activities Training and Certification Program	Local County Government	Develop a training and certification program for individuals involved with land disturbance activities. The program should include local engineers, developers, contractors, builders, county personnel, landscape architects, and others who intend to perform similar construction.				A certification program for erosion and sediment control and stormwater management ensures everyone involved in land disturbing activities is aware of proper construction, maintenance, and importance of sediment and erosion control measures and stormwater management facilities.
Biota-Sediment	Ordinance Revisions	Local County Government	Review the current Erosion & Sediment control ordinance and modify as appropriate. Include requirements for professionals involved in erosion and				There are proposed changes to the state's erosion and sediment control program.

			sediment control design and construction to be certified by Henry County. Include requirements for pollution prevention at the construction site through the preparation of an Erosion, Sedimentation & Pollution Control Plan to address issues such as trash, construction debris, leaking vehicles, storage of chemicals, etc.				Channel protection and conservation subdivision ordinances will provide further guidelines for construction activities.

VII. MONITORING PLAN

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

Table 6. MONITORING PLAN

PARAMETER(S) TO BE MONITORED	ORGANIZATION	STATUS (CURRENT, PROPOSED, PLANNED)	TIME FRAME		PURPOSE (If for delisting, date of SQAP submission)
			START	END	
Fecal Coliform, Biota	DNR – River basin testing schedule	Proposed	2005	2006	Unknown
Fecal Coliform, Biota	Local Governments/ MTRDC	Planned/ Proposed	2007	2008	If needed, will pursue funding for monitoring of the watershed

VIII. PLANNED OUTREACH FOR IMPLEMENTATION

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

Table 7. PLANNED OUTREACH

RESPONSIBILTY	DESCRIPTION	AUDIENCE	DATE
MTRDC	Distribution of plan	Local officials, landowners and managers of agricultural operations.	Qtr 1, 2005
MTRDC, Local Governments	Development of area-specific promotional materials for best management practices of septic system maintenance	Landowners	Qtr 3-4, 2005
MTRDC, Local Governments	Development of area-specific promotional materials for BMPs (agricultural, forestry and erosion and sediment control)	Managers of agricultural operations	Qtr 3-4, 2005
MTRDC, Local Governments	Report and promotional material for maintenance of unpaved roadways	Landowners, local road departments	Qtr 1, 2006
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

IX. MILESTONES/ MEASURES OF PROGESS OF BMPs AND OUTREACH

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

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

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

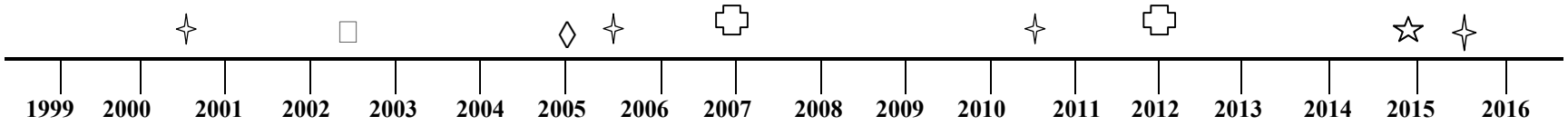
Table 8. MILESTONES

MANAGEMENT MEASURE	RESPONSIBLE ORGANIZATIONS	STATUS		COMMENT
		PROPOSED	INSTALLED	
Biota – Sediment				
Federal Clean Water Act Section 404 (Ag and Forestsry)			Continuous	GFC can report status on accomplishments or complaints investigated involving this act to the RDC as needed.
Memo to the Field: Application of BMPs to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast (Silviculture)			Continuous	GFC can provide status reports as needed
Federal Farm Bill (Swampbuster, Ag)			Continuous	Status reports can be provided as needed
GA Growth Planning Act (OCGA 12-2-8)			Continuous	GFC can determine applicability and BMP implementation for local units of government.
Georgia Forestry Commission Monthly BMP Assurance Examination			Continuous	Status reports can be provided as needed
Sediments, nutrients, pesticides, and habitat				
Georgia Water Quality Control Act (OCGA 12-5-20)			Continuous	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.
Georgia's Best Management Practices			Continuous	
Distribution of TMDL Plan	*MTRDC*			
Review & promotion of implementation for erosion and sediment control efforts within watershed	*Local Governments, Ga Forestry, MTRDC*	*2006*		
Promotion of system maintenance.	*Local Governments, DNR, MTRDC*	*2006 2007*		
Evaluation of wildlife habitat within the watershed	*Local Governments, MTRDC*	*2006 2007*		

Review of unpaved roads, soil conditions and land cover within the watershed with high potential for runoff	*Local Governments, MTRDC*	*2006*		
Review and implementation of BMPs for maintenance of un-paved roadways and driveways.	*Local Governments, MTRDC*	*2006*		
Review & promotion of BMPs for grazing and soil maintenance	*Local Governments, MTRDC, DNR*	*2006*		
Land Disturbance Activities Training and Certification Program	*Local County Government*	*Unknown*		
Ordinance Revisions	*Local County Government*	*Unknown*		

PROJECTED ATTAINMENT DATE

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



Scheduled EPD basin Group Monitoring ✧
TMDL Completed □
TMDL Implementation Plan Accepted ◊
Evaluation of implementation plan/water quality improvement ✚
Project Attainment ☆

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Date Submitted to EPD:	December 15, 2004			Revision: 1

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APPENDIX A.

STAKEHOLDERS

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

NAME/ORG	ADDRESS	CITY	STATE	ZIP	PHONE	E-MAIL
Georgia Farm Bureau	PO Box 7068	Macon	GA	31210	478.474.8411	
Spalding County Water Department	119 East Solomon Street, 110 Courthouse Annex	Griffin	GA	30224	770.467.4208	
McIntosh Trail RDC	PO Box 818	Griffin	GA	30224	770.227.6300	ahazell@cityofgriffin.com
UGA Griffin Campus	1109 Experiment Street	Griffin	GA	30223	770.228.7225	
Towaliga Soil & Water Conservation District	333 Phillips Drive	McDonough	GA	30252		Ken.Gran@gamcdonoug.fsc.usda.gov
Georgia Forestry Commission	2362 Ethridge Mill Road	Griffin	GA	30224	770.229.3475	gfc04126@gfc.state.ga.us
Georgia Forestry Commission	1599 Hwy 42 South	McDonough	GA	30252	770.504.2238	gfc04075@gfc.state.ga.us
Two Rivers Resource and Conservation District	900 Dallas Street	LaGrange	GA	30240		two.rivers.org@mindspring.com
Griffin Technical College	501 Varsity Road	Griffin	GA	30223	770.228.7348	
Bruce Ballard, Griffin-Spalding School Board	216 South 6th Street	Griffin	GA	30224	770.229.3710	
Spalding Co. Health Dept.	PO Box 129	Griffin	GA	30224		
Spalding Co. Extension Service	PO Box 277	Griffin	GA	30224	770.467.4225	
Larry Walker, Weyerhauser	P. O. Box 238	Oglethorpe	GA	31068		

City of Thomaston	P. O. Box 672	Thomaston	GA	30286	706.647.4242	
Upson County	106 East Lee St. Suite 110	Thomaston	GA	30286	706.647.7012	
Upson County Health Dept.	605 West Gordon Street	Thomaston	GA	30286	706.647.7148	
Upson Co. Extension Service	PO Box 86	Thomaston	GA	30286	706.647.8989	

APPENDIX B.

UPDATES TO THIS PLAN

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

Basin Creek Watershed

Land Cover (1996)

Legend

- Basin Creek
- Basin Creek Tributaries

Basin Creek Land Cover (1996)

- Commercial / Industrial / Transportation
- Row Crops
- Mixed Forest
- Evergreen Forest
- Urban / Recreational Grasses
- Deciduous Forest
- Open Water
- Woody Wetlands
- Pasture / Hay
- Low Intensity Residential
- Transitional

0.5 0 0.5 1 1.5 2 Miles

McIntosh Trail RDC

120 N Hill Street
P.O. Box 818
Griffin, GA 30224

770.227.6300 - V
770.227.6488 - F
www.mtrdc.org

October 28, 2004

Source: USGS (2000); Georgia DOT (1996-2004); MTRDC (2004); US Census (2000); Georgia DCA (2004)

Disclaimer: This map is intended for informational purposes only, and is accurate to the best knowledge of its producers. The user of this document agrees to render the McIntosh Trail RDC blameless for the information herein.

Basin Creek Watershed

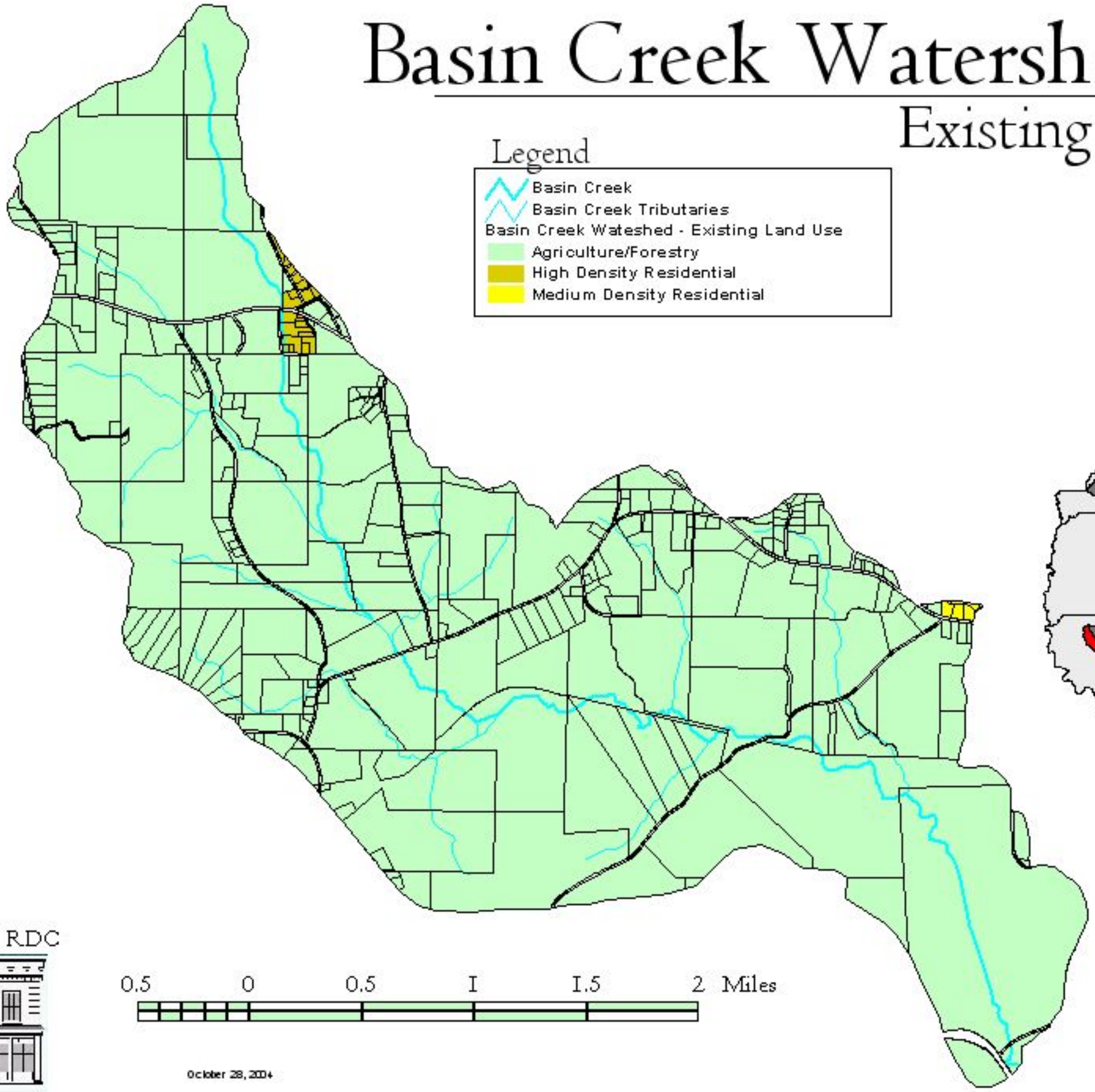
Existing Land Use

Legend

- Basin Creek
- Basin Creek Tributaries

Basin Creek Wateshed - Existing Land Use

- Agriculture/Forestry
- High Density Residential
- Medium Density Residential



0.5 0 0.5 1 1.5 2 Miles

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