

Georgia Environmental Protection Division Watershed Protection Branch

Audit Checklist For Local Governments In The Metropolitan North Georgia Water Planning District

2007-2008 Implementation Guidelines

The following pages present the requirements from the Long-Term Wastewater Plan, Water Supply and Water Conservation Plan, and the District-Wide Watershed Management Plan, for the years 2007 - 2008, in a checklist format. Documentation and supporting records must be listed in the checklist, and must be available when requested.

The local government is asked to place a tick mark in either the "yes (Y)", "no (N)", "not applicable (NA)", or "in process" space for each requirement. For all items checked "yes (Y)", please provide a document reference number (ordinance number, policy number, etc.), the date of implementation, and a brief description in the comments section. If "no (N)" or "not applicable (NA)" is checked, please include an explanation. Finally, for any items checked "in process", please provide implementation dates and/or schedule for completion in the comments section.

Local Government: Cobb County Water System
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Please list all relevant permits and their permit numbers held by the local government:

Water withdrawal permits: _____
Public Water system permits: GA CP0670003
Wastewater Treatment system permits: GA0046761 (Northwest Cobb WRF), GA0024988 (Noonday Creek WRF), GA0026158 (South Cobb WRF), GA0026140 (R.L. Sutton WRF) (R.L. Sutton Part 70 Operation 4952-067-0018-V-01-0), (R.L. Sutton 502(b)(10)Part 70 Source 4952-067-0018-V-01-1)
MS4 Stormwater Discharge permits: GAS000108

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: Stephen D. McCullers, P.E. Date: 11/04/08

Signature: _____ Title: Director, Cobb County Water System

Requirement	Y	N	NA	In Process*	Document Reference	Comments
A. Long-Term Wastewater Management Plan						
A.1. Development of a Septic System Management Program	Y					
Actions (Amendment passed 2/2/06): 1. Identify Critical Areas (2007 & ongoing). Each government should identify their critical areas that may need additional requirements for septic systems. These critical areas are defined as those areas where the risks and/or potential impacts of septic system failures are higher. Each jurisdiction should identify critical areas that are either current problems or could possibly cause problems in the future. In determining critical areas for septic systems the following areas should be considered: • Septic systems in small drinking water supply watersheds • Septic systems found around lakes or other water features • Areas with high failure rates • Areas with limited soil conditions, rock, steep slopes • Other problem areas as defined by local Health Departments or Jurisdictions	Y				Septic Tank Location Map	CCWS has identified most of the septic tank areas in the County. We anticipate eventually being able to provide sewer to most of these areas. The areas that we expect will never have sewer available are identified on our Septic Tank map. These are the areas that may need septic system management strategies in addition to the policies already in place which are described in A.1.2. CCWS communicates with Health Department on areas with high failure rates.

* Must provide implementation dates and/or schedule for completion.

A.1. Development of a Septic System Management Program (Continued)					Y	N	NA	In Process*	Document Reference	Comments
2. In the areas determined by local governments as critical areas a mix of management options should be considered. The Metro District has identified some of those options in the table below (2008 and ongoing):					Y				2)OCCC 122-130 OCCC 122-242, 122-243, 122-244 OCCC online: www.municode.com Sewer Extension Policy (adopted May 23, 1995) Policy Memorandum entitled "Multi-Patron On-Site Wastewater Management Systems dated March 30, 2005 CIP 3) Brochures: Home-owner's Guide to Septic Systems, Septic Tank Maintenance	2) CCWS does not approve plans for septic tank developments until provided documentation that the Health Dept. has reviewed the plans. CCWS is considering changes to Code to include more stringent septic tank requirements. 3) CCWS Water Steward Program distributes septic tank brochures at community meetings. We also occasionally do mailings. Work with Health Department to do workshops. Next workshop scheduled for Dec. 2008.
Management Option										
Require connection to sewer when system fails (if available)										
If sewer is not available when system fails then require repairs be made using current regulations including a soils test to determine the best type of system for the site.										
Require larger minimum lot size (based on site criteria)					X					
Increase tank size by 50% and increase drain field length					X					
Track location of septic system in database					X		X			
Require Health Dept be involved in initial site plan review for new developments (before roads and lots are cut)					X					
Make critical areas a priority for sewer service in local wastewater management plans					X		X			
Require inspection and/or maintenance at 5 year intervals					X		X			
Institute or enhance water quality monitoring					X		X			
Prohibit serial distributions (drain fields)					X					
Require 2 full-size drain fields with a switching valve be installed and alternate flow annually to extend the life of the drain fields					X					
Special homeowner education program					X		X			
3. Educate Homeowners about the need for septic system maintenance. (2007 and ongoing). The local governments should use the resources available to educate homeowners about the need for septic system maintenance. This should include, but not be limited to, workshops, brochures, posters, water bill inserts, etc.					Y					

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Requirement	Y	N	NA	In Process*	Document Reference	Comments
A. 2. Development of a jurisdictional policy and conditions for allowing private wastewater systems.	Y					
<i>The local jurisdictions need to have policies on private wastewater systems, tailored to their own needs and conditions. The local policy should clearly address how to deal with existing private and public agency wastewater systems. This, along with the service delivery plan contained in the local master plan, will enable EPD to evaluate permit requests from private service providers in the context of the District and local wastewater management policies.</i> Actions (pages 9-5, 10-2, 16-8, and amendments passed 2/2/06.): 1) The Local Government should formulate and enact local policies for private wastewater systems. Such policies should be reviewed and updated on a regular basis. a. Develop Policy to address prohibitions/acceptance of new private wastewater systems within jurisdiction. b. Develop Policy to address integrating existing private wastewater systems into the service area. c. Develop procedures to support both of the above policies. 2) During 2006, and ongoing, the local government must develop a plan for the disposal of septage from within their jurisdiction at local wastewater treatment plants or alternative disposal locations.	Y				OCCC 122-241 CCWS Internal Policy dated March 30, 2005.	CCWS has an IGA with Paulding and a developer running a sewer outfall that will make sewer available to the one remaining private residential sewer system in Cobb should that system not be able to comply with its permit or should the property be redeveloped. Septage receiving station at South Cobb WRF.

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
A.3. Establish policies concerning connection to public sewers. <i>It is recommended that jurisdictions establish a policy on connections to public sewer that follows their own wastewater management plan. In areas designated by the plan for sewer service, it may be necessary for the jurisdiction to extend sewer service. It also may be necessary to require developers to either extend sewer service to new developments, or to install both septic systems and dry sewers for future connections.</i>						
Actions (pages 9-6, 10-2, and 16-8): Beginning in 2005, develop policies for connecting to public sewer. The sewer connection policy should address: a) A policy to address connections to sewer from new developments. If the new development is within the planned area for future sewer service and a new sewer will not be extended for the development, the policy should address whether or not dry sewers should be installed at the time of development. The District recommends installing dry sewers for future sewer connections. The District also recommends requiring developers to extend sewer in all new developments that are within 1 mile of an existing sewer. b) A policy to address connections to sewer from existing developments. This policy should address which properties will be connected and how the connection costs will be handled. c) A policy to address sewer connections to isolated properties. When sewers are extended to new developments and past properties on septic systems, the policy should address whether or not these properties will be required to connect to sewer immediately, or only if the septic system fails. d) A policy to address funding sewer connections. This policy should address what the costs of connecting to the sewer will be, and who will pay for them.	Y				a) OCCC 122-130 b/c) Sewer Extension Policy (adopted May 23, 1995) c) Policy Memorandum entitled "Multi-Patron On-Site Wastewater Management Systems dated March 30, 2005 d) CIP	a) New development is required by Code to connect to sewer if sewer is available downstream and lots < 2 acres. Provision is made for dry sewer in some situations. b) Extension Policy provides petition process for existing developments or areas wishing to connect to sewer, or for areas where the BOC deems extension in the best interest of the County. c) Extension Policy requires connection only if commitment made through petition process. Connection required by Health Dept in the event of failed septic system. d) Funding for program is through CIP and is normally \$2 million per year

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Requirement	Y	N	NA	In Process*	Document Reference	Comments
A.4. Wastewater Collection System Inspection and Maintenance: A.4.1. Conduct a survey and inventory of the sewer system, and prepare system maps	Y					
Actions (pages 8-3 and 16-5): 1) Beginning in 2005 define mapping protocols and budget for work. <i>The first step in developing an effective inspection and maintenance program is to perform a comprehensive survey of the sewer system, and document the attributes in a computerized database and map. The purposes of surveying and inventorying a sewer system are to determine the horizontal and vertical locations of sewer system components, to document the attributes of various sewer system components, and to develop a GIS database of the system. Without proper mapping of a sewer system, it is difficult to determine which parts of a sewer system need inspection, or to track ongoing, mostly unscheduled, maintenance work. Without proper documentation and tracking of inspection and maintenance work, it is difficult and time consuming to determine the amount of resources that should be allocated to sewer system inspection and maintenance on an annual basis.</i> 2) Beginning in 2006 and through 2008, collect field data, prepare database, and prepare system maps. <i>Owners of sewer systems can either commit sufficient funding to complete the survey, inventory, and mapping of their system during one budget period, or commit to funding the program over a period of time. Once the initial survey, inventory, and mapping is complete, data on new sewers and associated appurtenances can then be added on an ongoing basis. (This should be within 12 months.) This procedure would allow operators and maintenance personnel to better understand their system, and would allow relatively easy retrieval of locational and attribute data when needed for operational, maintenance, and management purposes.</i>	Y				GIS System	GIS has been in use since the mid 90s. Existing facilities are in system. We continue to update with new facilities and correct existing facilities.

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Requirement	Y	N	NA	In Process*	Document Reference	Comments
A.4.2. Establish a Sewer System Inspection Program <i>The purposes of sewer system inspections are to evaluate the prevailing conditions of various sewer system components, identify the types and location of sewer system defects allowing the entry of extraneous flow (I/I), estimate the volume of I/I from various sewer system defects and the total I/I entering the system, and gather data needed to facilitate the identification of methods for correcting sewer system defects.</i> Actions (page 8-5 and 16-6): Establish inspection procedures and execute program. (2006 and ongoing) The Inspection Program should include a schedule for inspections and maintenance that should be system specific. The sewer system inspection program should include procedures for performing various anticipated inspection activities including the following: 1) Physical inspection of manholes and sewer pipes. 2) Inspection of all elevated stream crossings. (The schedule for inspections should be system specific.) 3) Building inspections. 4) Smoke testing. 5) Dye-water testing. 6) Flow isolation and measurement. 7) Closed Circuit Television Inspection (CCTV). 8) Sonar Inspection/Totally Integrated Sonar and CCTV Inspection Technique (TISCIT). 9) Inspect all valves. (These are typically done monthly.) 10) Right-of-way/easement inspection and clearing. (This is typically done on an annual basis.)	Y				CMOM Online 1,4, 5, & 7) Sections 4.5.1, 4.5.2 and 4.5.5 of CMOM Inspection forms 2) Section 4.5.8 of CMOM 10) Section 4.5.4 of CMOM/ Annual Contract	2) To date CCWS has completed 1,976 stream crossing inspections of which 52 were determined to be in poor condition. We revisit our major crossings after heavy rain events. When we convert to our new CMMS, we plan to develop a schedule to revisit each crossing. 3) Responsibility of Cobb Co Community Development plumbing inspections 1,4, 5, 7) In-house conducted by I/I Section

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Requirement	Y	N	NA	In Process*	Document Reference	Comments
A.4.3. Establish a Sewer System Maintenance Program <i>A sewer system maintenance program should be developed and implemented to ensure that the sewer system is maintained in a manner that minimizes failures and extends the longevity of the system. The focus of the sewer system maintenance activities should be on maintaining the hydraulic capacity of the sewer system. Typically, two different classes of problems can reduce hydraulic capacity: Structural and operational. Structural defects involve the degradation of the sewer pipe itself. Serious structural defects can lead to pipe collapse, causing SSOs. Sewer repair and rehabilitation activities are focused on restoring the structural integrity of the pipe. Most operational defects affect the hydraulic capacity of the pipe. Roots, sediments, fats, oils, and grease all reduce the cross-sectional area of the pipe, which in turn reduces hydraulic capacity. Sewer cleaning and source control activities are directed toward preventing or reducing the impacts of operational defects on the collection system.</i> Actions (page 8-6 and 16-6): Establish maintenance procedures and implement. (2004-2005) The maintenance program should include the following: 1) Schedules and procedures for preventive, routine and corrective maintenance. 2) Schedules and procedures for right-of-way/leasehold maintenance. This should include routine inspection and maintenance of sewer and force main rights-of-way, stream crossings, stream banks adjacent to sewers, and force mains. 3) An inventory management system. 4) An information management system. Maintenance data should be input into the Computerized Maintenance Management System (CMMS). 5) Procedures for generating maintenance work orders. 6) Reports listing equipment and work orders generated during a previous time period. 7) Periodic service calibration of instrumentation. 8) Routine inspection and service of all pumps and associated equipment. 9) Periodic cleaning of sewers and associated appurtenances.	Y				1) schedules in CMMS (Changing to Maximo); procedures in section 4.5 of CMOM Program 2) Section 4.5.4 of CMOM. Sections 4.5.4 and 4.5.8 CMOM 3) CMMS (Changing to Maximo) 4) CMMS/GIS (Section A.4.1) 5) Flow Chart 6) Periodic Data report appendices to CMOM 7) Included in CMMS 8) Section 4.5.3 CMOM 3) Section 4.5.5 CMOM	1) Lift station PM scheduled by route. Each LS is inspected either once per week or once per month, depending on size reliability of station. Required PM performed during these visits. Inspections were daily prior to SCADA implementation. Stream crossing inspections scheduled by CMMS either semi-annually, annually, or biennially. Status changes based on inspection results. Several are inspected after any significant rainfall event. 2) Originally adopted and placed into effect in 1994. Revisions developed periodically since that time.

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Requirement	Y	N	NA	In Process*	Document Reference	Comments
A.4.4. Develop a Sewer System Rehabilitation Program	Y				CMOM 4.5.2; 4.7	
<i>Sewer rehabilitation is necessary to restore the structural integrity of a sewer system and to reduce the hydraulic loads, by eliminating I/I. Capacity enhancement, which includes rehabilitation as well as other structural modifications, is necessary where peak flow conditions contribute to SSOs, or cause compliance problems at the treatment plant.</i> 1) Actions (pages 8-9 and 16-6): Prioritize rehabilitation projects, develop schedule and annual budgets, and implement. (Beginning in 2004 and ongoing.) The sewer system rehabilitation program should include the following: 1) Procedures for prioritizing rehabilitation work based on severity of defects, cost effectiveness, and hydraulic capacity. 2) Schedule for sewer system rehabilitation. 2) Continue annual planning. (Beginning in 2006 and ongoing)						The Water System has a 10 person I/I Section which performs SSES tasks. They are equipped with CCTV, smoke testing equipment, field data loggers, temporary flow meters, and GPS units. We focus our I/I efforts on the basis of flow monitoring and field observation results. Any defects noted are triaged for immediate repair, the next rehab project, or noted for tracking in the future. Because of the emphasis of the emphasis that we place on this issue through the budget process, we are able to repair any defect that is in need of repair without much regard to prioritization except as mentioned above. This process has proved effective over time in addressing I/I levels.

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Requirement	Y	N	N	A	In Process*	Document Reference	Comments
A.4.5. Flow and rainfall monitoring program							
<i>Flow monitoring is used to determine the quantity of wastewater flows at specific locations within a sewer system, and to determine availability of capacity. Strategically located flow monitors are a means to track trends in sewer basin flows, and can aid in determining the amount of I/I entering a sewer segment or sewer basin. The combination of flow and rainfall monitoring is typically used to estimate the peak flows associated with various rainfall events. Flow and rainfall data is also used to distinguish between rainfall-induced inflow and from groundwater-induced infiltration, and to perform a source defect analysis. Flow and rainfall monitoring should be performed continuously within old and deteriorating sewer systems. Flow monitoring should be performed continuously at all major pump stations and wastewater treatment facilities.</i> Actions (pages 8-4 and 16-5): 1) Determine the flow and rainfall monitoring locations. (2005) 2) Purchase equipment and initiate the program. (2006) 3) Continue purchasing the equipment and initiating the program, along with collecting and analyzing the data. (2007 and ongoing) A.4.6. Hydraulic modeling program	Y Y Y				1/2/3) Project description for permanent flow monitoring program, installation completed Feb. 2007	15 permanent monitors; 17 temporary monitors; 12 rainfall gauges	
<i>A hydraulic modeling program can facilitate the determination of prevailing sewer system capacity and ensure that planned future expansions have adequate capacity to handle the anticipated wastewater flows. The hydraulic modeling program should include the following; strategically placed permanent and temporary flow meters, sewer system inspections, commercially available software, or manual calculations, and estimation of prevailing base and peak flows.</i> <i>The hydraulic model of each sewer system should be maintained and updated continuously. Prior to allowing new connections into a sewer system, wastewater authorities should ensure that there is sufficient capacity in the sewer system to handle predicted flows. A hydraulic model is the best tool for allowing informed decisions to be made regarding new sewer connections.</i> Actions (pages 8-4 and 16-5): 1) Investigate modeling software. (Beginning in 2005 and ongoing.) 2) Use inventory and monitoring data to develop the system model. (2006 and ongoing) NOTE: We have in place a hydraulic model of the system's significant transmission facilities (interceptors and pump stations) that also projects required capacity for County build-out through these corridors. Any pipeline replacements are sized to accommodate build-out flows. We have recently completed installation of an upgraded permanent flow monitoring network and utilize temporary flow meters to isolate smaller areas and focus our infiltration/inflow efforts.	Y					1) Sewer System Master Plan 2) RJN hydraulic model developed as a part of the Master Plan	We will evaluate the need to update the model in FY10.

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
A.4.7. Capacity certification program <i>Capacity certification programs allow various jurisdictions to determine whether adequate wastewater collection and treatment capacities exist within their sewer systems, before authorizing new flows and sewer service connections. But certification of sewer collection capacity alone is not sufficient. It is also necessary to certify transmission and treatment capacities to ensure reduction in system overflows and bypasses, while ensuring compliance with the requirements of the NPDES permits. Each jurisdiction should develop its own capacity certification program based on system specific conditions and available information.</i> Actions (pages 8-4 and 16-5): 1) Develop procedures for certifying available capacity for proposed developments. (2005) The capacity certification program should include a step-by-step procedure for determining and certifying capacities for various system components. Items to be addressed should include: 1) Descriptions of how the review of initial building permit applications, requests for zoning or rezoning, and requests for sewer connections will be addressed. 2) Notation of which agencies of the local government will be responsible for certifying capacity availability. 3) Building permit applications should include detailed plans, estimated wastewater flows, and supporting calculations. 4) A capacity certification form should note whether the system has available adequate capacity to collect, transmit, and treat the additional flows, or note that ongoing or planned sewer system improvements would provide the capacity needed to handle the additional flows. This form should be completed and signed by an authorized representative of the local government before a service connection is allowed. 2) Implement certification of availability of capacity for proposed developments. (2006 and ongoing)	Y				Internal Policy approved by the Water System Director on April 17, 2006, and implemented immediately. 2) Example Letter attached.	

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
A.4.8. Development and implementation of a grease management program.	Y				Grease Mgmt Program 2007 Annual Report	
<i>Grease probably causes more than half of the sewer system blockages experienced in the District. Many municipalities in the District have incorporated grease trap requirements for commercial food establishments or processors that discharge a large volume of waste oils or tallow. Although existing municipal codes and ordinances in the District require the installation of grease traps, routine maintenance and inspection can sometimes be lacking. Lack of maintenance of grease traps can lead to failure. Local governments have a role in assuring that grease trap owners routinely maintain their traps and reduce the amount of waste oils discharge to the sewer system.</i> Actions (pages 8-7 and 16-6): Develop the procedures for grease control and enforcement during 2004 & 2005. Beginning in 2006, implement the Grease Management Program. The Grease Management Program should include the following: 1) Legal authority regulating the discharge of grease from industrial and commercial facilities. 2) Legal authority for an enforcement program. 3) Written methods and procedures for preventing/controlling discharges of grease from these facilities. 4) Staff organization and responsibilities for effective grease control. 5) Inventory of equipment for clearing blockages associated with grease. 6) Inspection/Tracking program to ensure routine inspections of grease traps, tracking of sewer system blockages and overflows associated with grease, and investigations to identify sources causing blockages in the sewer system. 7) Grease management training program to ensure that the community understands the importance of reducing/eliminating grease discharges into the sewer system.				1/2) OCCC 122-188 3) Enforcement SOPs 4) Flow chart 5) CMOM Website/Periodic Data Report Appendix/Vehicle & Equipment Summary 6) 3 databases 7) We currently distribute brochures and letter from the Director to restaurants 6) Master List of grease traps including basic info, inspection dates, manifests; Field visit database; Spill database 7) Distribute WEF "Fat-Free Sewers" brochure. Developing CCWS Brochure for residences. Info on website: fog.webpage		

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
A.4.9. Enhance the process for rapid reporting and response to sanitary sewer overflows (page 16-6).	Y				Included in the State-approved CMOM Program	Section 7.0 and several related Appendices (including press release forms)
<i>Each Local Government should develop a written Overflow Emergency Response Program (OERP). This OERP will ensure expedient notification and response to overflows impacting or having the potential to impact the public, surface waters, ground surfaces and structures. Most municipalities within the District have OERPs meeting the requirements of EPD. However, more work need to be done to improve response time and to reduce the occurrence of overflows.</i> Actions (page 16-6): An OERP should include the following: 1) Procedures for investigating the causes and extents of overflow events. 2) Procedures to ensure rapid dispatch of personnel and equipment to correct and repair conditions causing or contributing to overflows. 3) Procedures for public notification in the event an overflow occurs. 4) Procedures for limiting public access to areas affected by overflows. 5) Procedures for notifying regulatory authorities about overflows. 6) Training program to ensure personnel are adequately trained regarding the provisions and implementation of the OERP when overflows occur. 7) Procedures to minimize the volume of untreated wastewater flowing or transmitted to the portion of the sewer system impacted by overflow events. 8) Procedures for monitoring, sampling, and analyzing water samples impacted or potentially impacted by overflow events. 9) Procedures for reporting the results of the monitoring, sampling, and analysis of water samples, impacted or potentially impacted by overflows, to appropriate regulatory authorities.						

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
A.5. Specific Implementation Actions (page B-1) These are capital projects specific to each local government. Each Local Government should review Appendix B for its site specific actions. Wastewater Treatment capacities: Noonday Cr – 20 mgd (meets 2030 req) Northwest – 12 mgd (meets 2030 req) South Cobb – 40 mgd (meets 2020 req) Sutton – 60 mgd (meets 2030 req) (Currently permitted at 50 mgd) Agreement with Paulding for treatment of flows from Paulding's Sweetwater basin at South Cobb WRF was signed in 2007. Agreement with Paulding for treatment of flows from Paulding at Northwest Cobb WRF and treatment of additional flow from Cobb's at Pumpkinvine Creek WRF was signed in 2008. Agreement with Bartow for treatment flow from Bartow at Cobb's Northwest WRF signed in 2005. Water supply projects are the responsibility of the Cobb County Marietta Water Authority.						

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
B. Water Supply and Water Conservation Plan						
B.1.Water Conservation						
B.1.1.a. Perform rate studies. 2005 (pages 8-1 through 8-2, and 17-2)	Y				Rate study completed by Water System in June 2005 utilizing 20-year Financial Planning Model.	
<i>The goal of conservation pricing is to reduce excessive discretionary water use, especially outdoor irrigation, by making water use increasingly more expensive. Some key elements of conservation pricing are low fixed monthly charges, high commodity use charges, and informative monthly billing. Several local governments will need to convert their rate structures from declining block to uniform or tiered pricing by 2004. Implementing uniform rates is one step in a three-step plan to convert declining block pricing to multi-tiered rates, a form of conservation pricing.</i> Actions: Perform rate studies Performing rate studies is step two in a three-step plan to convert declining block pricing to multi-tiered rates, a form of conservation pricing. The rate study, or rate analysis, should be accompanied by a revenue analysis. This will be needed to: 1) Determine the rates to assign to each tier in the multi-tiered rate structure. 2) Determine the effect on the revenue stream. 3) Maintain fair and equitable billing rates.						

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
B.1.1.b. Implement multi-tiered rates. 2006.	Y				CCWS Rates, Charges, and Fees (Page 2)	
Actions: Implement a multi-tiered rate structure. (pages 5-19, 8-1 through 8-2, and 17-2) All local governments should implement at least a 3-tiered rate structure. The following guidelines should be used to define this multi-tier rate for residential and commercial customers: 1) The first tier typically includes up to 125% of the average winter use. 2) The second tier is usually defined by the bounds of the first and third tiers, and the rate for this tier should be at least 25% above the first tier rate. 3) The third tier is usually determined by a rate study and would contain the highest 5-10% of customers, who typically use 10-20% of the total volume of water used. The billing rate for this tier should be at least 200% of the billing rate for the first tier. 4) Certain industrial/commercial/institutional water users may need to have their individual systems analyzed to determine appropriate base and tier levels. The rate study will also determine what percent of customers and volume to place in each tier.					On 10/29/07 the Cobb County Board of Commissioners adopted a five tier conservation rate billing structure. The rates in tiers four and five are part of the Cobb County Drought Response Plan implemented. On 9/9/08, new rates approved which will be effective Oct. 1, 2008.	

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Requirement	Y	N	NA	In Process*	Document Reference	Comments
B.1.2. Adopt a local ordinance or policy requiring all new multi-family buildings be built with individual water meters or sub-unit meters that bill based on volume of use. 2006 (Amendment passed 2/2/06) <i>Local ordinances, or policies, should have been adopted, during 2006, to require that all new multi-family buildings (i.e. apartments, town homes, condominiums) be built with individual water utility owned meters on each unit OR sub-unit meters owned and managed by the property owner with a utility owned master meter that bills for water service based on volume of use. The billing for water use can be accomplished by the water provider or by a private, third party, such as the development owner.</i>	Y				OCCC122-152 (f)	
B.1.3. Identify how rain sensor shut-off switches on new irrigation systems have been addressed. (pages 8-3, and 17-2) The State established regulations requiring rain sensor irrigation shut-off switches on all new irrigations systems – both residential and non-residential, through O.C.G.A. 12-5-6. This regulation included the following provisions: 1) To apply to all new systems installed after 1/1/05. 2) Did not apply to golf courses or non-public water sources. 3) Magistrate and municipal courts have jurisdiction in these matters. The local government should have procedures to ensure compliance with this regulation.	Y				OCCC122-152 (g) CCWS gives a copy of the state law regarding rain shut off sensors to our customers who apply for irrigation meters. We have also had all of the irrigation supply houses post the state law at their facilities In addition, we educate irrigation system installers as to the requirement.	

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
B.1.4. Replace older, inefficient plumbing fixtures. <i>To speed the conversion of older, inefficient plumbing fixtures towards current lower flow models, local water providers will be required to implement a program targeting the replacement of older plumbing fixtures. Low flow fixtures are defined according to current code standards. In order to provide flexibility, the water providers can choose a program as they see fit.</i> Actions (Amendment passed 2/2/06): The program requirements are as follows: 1) Local water providers should identify single and multifamily residences and commercial buildings that contain older pre-1993 plumbing fixtures, by 2008. 2) Local water providers should develop a strategy to distribute, install, or provide incentive to replace higher flow fixtures on accounts owning pre-1993 built structures. The program must specifically address toilet replacement rather than provide toilet retrofit devices. Examples of such programs include: a. Direct install program – Customer exchanges older toilet for a low-flow toilet with discounted or free installation through the local water provider. b. Rebate incentive program – Customer receives a credit to water bill, cash, or voucher offsetting the cost for a new low-flow toilet. c. Other – Any program that provides at least the same rate of replacement as the above examples. Water provider must document exchange rate. 3) The timing of the program implementation should coincide with the water providers water supply needs. An assessment of service area pre-1993 plumbing fixtures and selection of a program should be completed by 2008. Depending on the selected program, the utility should establish a schedule for implementation and set benchmarks accordingly. For all programs, implementation should begin no later than 2010. Information on this measure should be integrated with other plan public awareness and education implementation.	Y				1) Data Assessment of Pre-1993 Plumbing Fixtures 2) Toilet rebate and toilet valve rebate programs established October 29, 2007. Online Info (attached) 3) Rebate Spreadsheet CCWS has provided rebates on approx 4,400 toilets since November 1, 2007.	

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
B.1.5 Require pre-rinse spray valve retrofit education program. <i>To speed the installation of low-flow pre-rinse spray valves in food preparation establishments, an intensive education program is needed to promote the replacement of these devices. The program needs to target food service establishments, including grocery stores, restaurants, cafeterias, and institutional housing facilities. Municipal operations should retrofit these valves as an example to the private sector. District staff should provide educational brochures to be distributed throughout the area by the local governments. In conjunction with grease trap inspections, inspectors should also provide this information and encourage retrofit. Another option of implementation is to establish a rebate or direct install incentive program. The local governments should inventory all existing food service establishments and distribute educational information no later than January 2009.</i>	Y				1) Inventory is part of Grease Trap List 2) Educational Brochure distributed to all establishments	Additionally CCWS worked with some Cobb County students on a pre-rinse spray valve study and now all of the Cobb Schools are retrofitting their valves in the System.
Actions (Amendment passed 2/2/06): 1) Inventory of food service establishments. (2006-2007) 2) Distribute educational materials. (2008 and ongoing)	Y					
B.1.6. Assess and reduce water system leakage and unbilled water. (pages 5-19 through 5-20, 8-3 and 17-2) <i>Water providers must identify methods to reduce leakage in their systems, and to reduce unbilled water. Each water provider should perform a distribution system water audit based on the International Water Association (IWA) methodology, in order to maintain uniform assessments of leakage and set targets at the economic level of leakage.</i> 1) Beginning in 2005 the Local Government must perform a system water audit. 2) Beginning in 2006, and ongoing, the Local Government must perform leak detection and repairs.					1) Water audit based on IWA methodology completed in 2007. ILI=2.60 2) Leak Summary Report. Leak detection equipment purchased in Jan. 2008. Detection & repairs are ongoing.	We have historically been very active in addressing any leaks in a timely manner. We currently attempt to further address this issue by calculating and limiting flush water, hydrant uses, and other unmeasured uses. We are in the midst of an initiative to replace existing AC water lines in high pressure areas as these are the most likely to leak.

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
B.1.7. Conduct residential water audits. 2004 (pages 5-20, 8-3, and 17-3) Actions: Water providers will begin or expand a program to provide water audits (indoor and outdoor) to residential customers, following the adoption of conservation pricing and subsequent rate increases. <i>The following guidelines should be used to define the residential audit program:</i> 1) <i>The largest 25% of water users should be targeted.</i> 2) <i>Audits should be made available to customers who complain about high water bills.</i> <i>The District published an easy-to-use "Do It Yourself Household Water Assessment" as a water conservation tool for conducting residential water audits. This publication includes a worksheet to help homeowners calculate water usage and tips for using water more efficiently. This document is available on the District website.</i> During 2004, and ongoing, the Local Government must implement the program.	Y				Comprehensive self-audit document available to residential customers in both hard copy and on the web. Form returned to Water System for review. We provide advice and water saving fixtures as appropriate	In 2007 and 2008, CCWS has given out approximately 5,000 water audits. Recently we have utilized the Plumbers trained in our Green Plumbers Program to carry these audits and hand them out to their customers and walk through the home conducting audits with the customer.
B.1.8. Conduct commercial water audits (pages 5-18, 8-4, and 17-3) Actions: Water providers will begin or expand a program to provide water audits (indoor and outdoor) to commercial customers. This audit will include a feasibility report that outlines changes to process and operations to reduce water usage. <i>The following guidelines should be used to define the commercial audit program:</i> 1) <i>P2AD can be used to train auditors in performing water audits.</i> 2) <i>Water providers could use pre-qualified contractors to perform the audits</i> During 2005, and ongoing, the Local Government must design and implement the program.	Y				Letter from Director to commercial users. CCWS Water Conservation Coordinator conducts audits.	Top 25 commercial users targeted for audit in the fall of 2006. Throughout 2007 and early 2008 we made monthly contact with our commercial customers who exceeded their 10% mandated reduction. We assisted with leak detection and water efficient BMPs. We have contacted more than 500 businesses and provided them technical assistance.

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
B.1.9. Distribute low-flow retrofit kits to residential users. (pages 5-17, 8-4, and 17-3)	Y					Both indoor and outdoor retrofit kits are available. About 2,500 indoor kits and 1,000 outdoor kits (which include ground moisture sensors) have been distributed to date. Our goal is to distribute indoor kits to as many houses as possible that were constructed prior to 1992.
Actions: Water providers will begin or expand a program to distribute low-flow retrofit kits to customers. The kits would be distributed to the portion of the service areas that have pre-1992 homes. The kits could include low-flow showerheads, faucet aerators, and other applicable retrofit items. During 2005, and ongoing, the Local Government must design and implement the program.						
B.1.10. Active participation in a regional public education program, or establishment of a local program. (pages 5-18, 8-4, 16-1 through 16-11, and 17-3)	Y					
Actions: Each water provider must increase their public information programs. The program should include: public awareness campaign, outreach and education to key target groups, and education of primary and secondary school age children. During 2005, and ongoing, the Local Government must implement the education and public awareness program.					Many of our programs are listed on our web site at water efficiency webpage	

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
B.2. Water Supply						
B.2.1. Develop/review local water management plans. (pages 11-1 through 11-3, and 17-6)			NA			Responsibility of Cobb County Marietta Water Authority
Actions: <i>Local Governments should develop water management plans that, at a minimum, conform to the goals of the core principles of the Water Supply Plan to insure that water services are developed cost effectively, with a long-term regional perspective that provides good service. The management plans should address:</i> 1) <i>Water supply, Conservation and Reuse Management</i> 2) <i>Water treatment Facilities</i> 3) <i>Distribution System and Interconnection Facilities</i> 4) <i>Drought and emergency plans</i> These Plans should: 1) Have been developed during 2005/2006, and are to be implemented in 2007. 2) Be reviewed every five years, when the Metro District updates the Water Supply and Water Conservation Plan, this will ensure the local governments' Water Management Plan is consistent with the Metro District Plan.						
B.2.2. Construct, expand, and retire water treatment plants and priority reservoirs projects described in the Water Supply and Water Conservation Plan. ONGOING (Appendix B) Actions: These are capital projects specific to each local government. Each Local Government should review Appendix B for its site specific actions.			NA			Responsibility of Cobb County Marietta Water Authority

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
B.2.3. Water System interconnections. (pages 10-1 through 10-6., and 17-6)						
Actions: <i>Planning for additional interconnections should be incorporated in local governments' water distribution system improvement plans. Local governments should use the recommended District-wide interconnection reliability target (IRT) to develop or update their emergency water sharing plans.</i> 1) Establish local interconnection reliability target based on District-wide recommendation. Each water system will need to define its own IRT and evaluate other factors affecting water system reliability, including raw and finished water storage, infrastructure conditions, equipment redundancy, and existing interconnection capability. (2006-2006) 2) Develop or update local emergency water plans. a) Develop detailed hydraulic studies. Detailed hydraulic studies should be conducted for each county and each water system to determine the overall distribution system improvements that are required to meet projected 2030 demands. (2004 and ongoing) b) Define capacity needs and pipe sizes, locations, routes, pumping and pressure reducing requirements. Each water system should improve and continuously update its inventory of distribution system components, including location and size of pipes, valves, and storage facilities. (2004 and ongoing) c) Define steps required to modify system operations of both utilities. Each water system should take steps to modify their system operations to be compatible with interconnected utilities. (2004 and ongoing) d) Install required water system connections. Each water system should evaluate the feasibility and cost-effectiveness of providing multi-directional flows at existing and future interconnections with a pipe diameter greater than or equal to 12 inches. (2004 and ongoing) e) Secure funding for capital and non-capital improvements. (2004 and ongoing) f) Enter water sharing agreements (emergency or routine) between utilities. (2005 and ongoing) g) Develop or update emergency plan for water sharing. Each water system should develop or update their emergency and drought contingency plans to detail the steps that will be required to operate the interconnections during emergency conditions. This may require installation of necessary water system interconnections, and securing funding for capital and non-capital projects. (2007 and ongoing)	Y					IRT=0.35*56 mgd=20 mgd
	Y				2.a) Water Master Plan	2.a) Stoner Model Report
	Y				2.b) Water Master Plan	2.b) Continuously update GIS
			NA			2.c) CCMWA
			NA			2.d) CCMWA
	Y				2.e) CIP/Financial Model	2. f) CCMWA 2.g) CCMWA
			NA			

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
C. District-Wide Watershed Management Plan						
C.1. Adopt, and implement, either the Model Storm Water Management Ordinances developed by the District or ordinances that are at least as effective. (pages 5-6 through 5-9, and 9-4 thru 9-5).	Y					
C.1.1. Post-Development Storm Water Management for New Development and Redevelopment	Y				Official Code of Cobb County Georgia (OCCC) Sections 50-26 through 50-195 www.municode.co Cobb County Development Standards Manual Cobb County Stormwater Management Plan reported dated December 15, 2003, revision date December 9, 2005. GAEPD District July 18, 2006 audit of Cobb County's SWM program . USEPA and GaEPD's December 4-7 2006 of Cobb County's (Phase 1) MS4 program.	GaEPD's 2006 audit comments (ref. July 31, 2006 correspondence from GAEPD) have been incorporated into a proposed revised Section 50. In response to the July 2006 audit, revisions were made to Sections 50-113; 50-126; 50-130; 50-131; 50-132 and 50-160. An electronic file reflecting the proposed revisions is available upon request. The revised ordinance was brought forward for Board Approval in early 2007 and was adopted. Currently adopted OCCC Section 50 can be found online at www.municode.com

* Must provide implementation dates and/or schedule for completion.

Actions: <i>This model ordinance addresses post-development stormwater management requirements for new development and redevelopment in a community. This ordinance defines requirements for a post-development stormwater management plan, which is required in order to undertake land development activities. This plan contains the details of how the development will address post-development stormwater runoff quality and quantity impacts resulting from the permanent alteration of the character and hydrology of the land surface as well as the nonpoint source pollution from land use activities.</i> 1) Each local government must adopt, and implement, either the Model Post-Development Storm Water Management for New Development and Redevelopment Ordinance developed by the District, or an ordinance that is at least as effective. 2) Adopt Stormwater Management Technical Standards and Design Criteria as defined by the District. (2004) 3) Revise Development (Site Plan) Review Process and Procedures. (Beginning in 2004 and ongoing) 4) Develop and implement the Construction Inspection Program. (Beginning 2004 and ongoing) 5) Develop and implement Long-Term Compliance Tracking/Operation and Maintenance (O&M) Program for New Stormwater Management Facilities. (Beginning in 2005 and ongoing)	Y			Plan Review Checklist	1) The Georgia Stormwater Management Manuals have been adopted and are referenced in our current code. 2) Cobb County's Stormwater Management Plan Review Checklist has been revised to include input received from GaEPD at the July 18, 2006 audit. The revised SWM plan Review Checklist was put into use. The Revised Plan Review Checklist is available upon request in electronic or hardcopy form. 3) Inspection of developer-installed facilities is performed by the Cobb County Community Development Department as a part of site development. Construction Inspection Program is ongoing. Repairs and capital improvement projects are inspected by CCWS. Cobb County's Construction Inspection Program is described in page 100-5 through 100-7 in the current "Cobb County Development Standards" book. Also, reference pages 15 and 16 of the Cobb County Stormwater Management Plan dated December 15, 2003, with latest revision date, December 9, 2005, where additional descriptions can be found. 4) Long term Compliance Tracking Operation and Maintenance (O&M) Program is currently underway. Cobb County is working to complete
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* Must provide implementation dates and/or schedule for completion.

						its storm drainage structure inventory. In 2006 we were anticipating the completion of this effort by the end of 2010 with the assistance of an outside consultant. However, we were unable to get BOC concurrence to do this, and so we are completing this effort entirely in-house using two 2-man field crews on a full-time basis. It is now anticipated that this effort will be completed in-house by the end of 2013. Since the July 2006 audit, Cobb County SWM has hired 3 more construction inspectors, one Code Compliance officer to inspect and track commercial detention ponds, one Stormwater Compliance (Code Enforcement) Officer and a Project Manager. Therefore, all of these new SWM staff members have been dedicated to long-term tracking and maintenance inspection of stormwater management facilities. Following the July 2006 GaEPD audit, new stormwater management (SWM) facilities were defined as those SWM facilities installed in 2005 and thereafter. Following the July 18, 2006 GaEPD audit, Cobb County targeted maintenance of at least 10% of new public SWM facilities which require maintenance, per year.
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Requirement	Y	N	NA	In Process*	Document Reference	Comments
C.1.2. Floodplain Management/Flood Damage Prevention - (pages 5-6 through 5-9, and 9-4 through 9-5, and amendment passed 2/2/06)						
<i>Floodplain management involves the designation of flood-prone areas and the management of their uses. It is also intended to minimize modifications to streams, reduce flood hazards, and protect the beneficial uses of floodplains-including water quality protection. As such, floodplain management can be included as a subset of the larger consideration of surface water and stormwater management.</i> <i>Floodplain regulations and development restrictions can greatly reduce future flooding impacts, preserve greenspace and habitat, and protect their function in safely conveying floodwaters and protecting water quality. The Floodplain Management Ordinance is intended to help communities integrate floodplain management with stormwater management during the land development process.</i> Actions: 1) Each local government must adopt, and implement, during 2006, either the Floodplain Management/Flood Damage Prevention Ordinance developed by the District, or an ordinance that is at least as effective. 2) Develop the Future-conditions floodplain maps; complete mapping on 10% of the streams each year. (Beginning in 2006 and ongoing) 3) Develop and implement Floodplain Review as part of Land Development Permit Process. (Beginning in 2004 and ongoing) Please note: GEFA Implementation Unit's review of the implementation of this ordinance does not ensure compliance with the National Flood Insurance Program. A further review may be performed by FEMA or the Georgia EPD's Floodplain Management Office.	Y				OCCC Section 58 1) Contract with Dewberry and Davis in 2006 2) Revised Stormwater Plan Review Checklist	The District's Model Floodplain Ordinance dated February 2nd, 2006 has been incorporated into Cobb County's Flood Ordinance in OCCC section 58. GaEPD's audit comments (ref. July 31, 2006 correspondence) have been incorporated into Section 58. An electronic file reflecting the proposed revisions is available upon request. The revised ordinance was brought forward for Board approval in early 2007 and was adopted. Current OCCC Section 58 can be found online at: www.municode.com 1) In FY2003 & FY2004 Cobb County contracted with AMEC and JJ&G to update the FEMA floodplain maps for the eastern half of Cobb County. These studies and maps have been reviewed and approved by FEMA. In 2006 Cobb county contracted with Dewberry and Davis to take the updated hydraulics and hydrology performed under contract to Cobb County by various consultants for the western half of the county and to map these results onto the County's recently completed GIS topographic mapping. Dewberry's contract was amended to expand the limits of

* Must provide implementation dates and/or schedule for completion.

						floodplain evaluations upstream to the 100 acre basin limit, consistent with District requirements. The updated DFIRM for the entire county was submitted to FEMA in November 2007 and is currently in the review and appeals process. It is anticipated that the revised DFIRM's will become effective in late December 2008. 3) We have revised our SWM Plan Review Checklist to incorporate Floodplain Plan Review requirements, consistent with the District's Model Ordinance.
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Requirement	Y	N	NA	In Process*	Document Reference	Comments
C.1.3. Conservation Subdivision/Open Space Development. (Pages 5-6 through 5-9, and 9-5)	Y				OCCC Section 134- 198.1-198.2	
<i>Under the Conservation Subdivision/Open Space Development Ordinance, conservation subdivisions must have a minimum restricted open space that encompasses at least 40% of the gross tract area. The number of lots that may be developed on the remaining property is determined through a calculation method or by preparing a yield plan that identifies the maximum number of lots for the property based on a conventional subdivision design. The ordinance outlines how the open space may be used and identifies ownership and management requirements for the open space. The ordinance specifies that a legal instrument for permanent protection of the open space must be enacted for each conservation subdivision.</i> Actions: 1) Each local government must adopt, and implement, either the Conservation Subdivision/Open Space Development Ordinance developed by the District, or an ordinance that is at least as effective.	Y					Following the July 2006 GaEPD audit, Cobb County's ordinance was amended such that development in OSC districts (which includes the Conservation Subdivision requirements) must stay off of slopes steeper than 25%. The revised Ordinance was approved by the BOC in early 2007. It was generally felt that the CS ordinance as proposed by the District was being abused by the development community in Cobb to gain more density (higher lot yield) in sites with steep terrain. Our ordinance combines the Open Space Overlay District and the Conservation Subdivision into one zoning designation (OSC), since they are essentially both the same thing, but they can be separated if so directed by GaEPD.

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	N A	In Process *	Document Reference	Comments
C.1.4. Illicit Discharge and Illegal Connection. (pages 5-6 through 5-9, and 9-)	Y				OCCC Section 50-182 through 50-195. www.municode.com	
<i>An illicit discharge is defined as any discharge to a storm drainage system or surface water that is not composed entirely of stormwater runoff, except for discharges allowed under an NPDES permit or waters used for fire fighting operations. The Model Ordinance provided communities with the authority to address illicit discharges and established enforcement actions for those properties found to be in noncompliance or that refuse to allow access to their facilities.</i> <i>Screening for and identification of illicit discharges are designed to identify potential sources of water quality impairment. All local governments will be required to perform screening of stormwater outfalls in their jurisdiction during dry weather, or perform streamwalk surveys during dry weather.</i> Actions: 1) Each local government must adopt, and implement, either the Illicit Discharge and Illegal Connection Ordinance developed by the District, or an ordinance that is at least as effective. 2) Develop enforcement process and procedures. (2004-2005) 3) Document violations and enforcement actions. (Beginning in 2004 and ongoing)	Y				OCCC 50-188 through 50-195 CMOM program 2007-2008 MS4 Annual Report for Cobb County	GaEPD's 07-18-06 audit comments have been incorporated into Cobb County's current ordinance. Revision were made to the definitions; Section 50-188' 50-192; and 50-193. Enforcement actions are documented in each Annual Report. References to "Residential Car Washes" shall be removed from the Official Code of Cobb County (Section 50-191(b)(3)) by March 1, 2010.

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
C.1.5. Litter Control. (pages 5-6 through 5-9, and 9-5)	Y				OCCC Section 102-92 through 102-97	Enforcement action documentation has been compiled and is available at our office. Although SWM's focus has been upon litter control in the waterways, Cobb DOT has a "Street Sweeping Program" to address litter control inside the roadway Right of Ways. Convict labor is also used for this purpose.
<i>Litter often enters streams, rivers, and lakes and contributes to water quality degradation. Litter Control Ordinances provide a prohibition against littering and an enforcement mechanism with appropriate penalties for violations. This ordinance is modeled on the "Georgia Litter Control Law" (O.C.G.A. 16-7-40 et.seq.) and contains additions to ensure that local governments in the District address the impacts of trash and debris on water resources.</i> Actions: 1) Each local government must adopt, and implement, either the Litter Control Ordinance developed by the District, or an ordinance that is at least as effective. 2) Develop enforcement process and procedures. (2004-2005) 3) Document compliance, violations and enforcement action. (Beginning in 2004 and ongoing)	Y				OCCC Section 102-92 through 102-97, ref www.municode.com MS4 Annual Report for Unincorporated Cobb County	

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Requirement	Y	N	NA	In Process*	Document Reference	Comments
C.1.6. Stream Buffer Protection (pages 5-6 through 5-9, and 9-5)					OCCC Section 50-75 www.municode.com Correspondence dated September 1, 2006 from ARC.	Cobb County's stream buffer ordinance was adopted by the Cobb County Board of Commissioners in 1999, and includes wider buffers than the model ordinance, and a provision for "buffer averaging" to permit minor encroachments into the stream buffer as long as on-site compensation is achieved. We believe our ordinance is stronger than the Model Ordinance and has been employed effectively since 1999. To date variances in Cobb County have been handled administratively with allowances for mitigation and buffer averaging/compensation for proposed encroachment. Following GaEPD's July 18, 2006 audit, and amendment was incorporated which included an additional 25-foot impervious offset was added onto our 50-ft stream buffers (ref. 50-75(15)(b)), and an allowance for public hearing at our Board of Zoning Appeals (BZA) for cases in which encroachments into Cobb County's enhanced stream buffers occur and "buffer averaging" does not occur. Since no other District communities are applying "buffer averaging" we believe that this provision, adopted by the Cobb County BOC in early 2007, makes Cobb County's stream buffer ordinance compliant with the District's Model Ordinance.
<i>A stream buffer is defined as a natural or enhanced vegetated area, including trees, shrubs and herbaceous vegetation in which no land-disturbing activities are allowed. The Model Stream Buffer Ordinance was developed to create consistent buffer zones along the streams of the District for the protection of water resources and to minimize land developments along these buffers. It outlines minimum buffer requirements for rivers and streams, including minimum widths for the vegetative buffer and impervious surface setbacks. The Model Ordinance also recommends approval and enforcement procedures, as well as addressing existing regulations and the option for adopting buffers stricter than the minimums.</i> Actions: 1) Each local government must adopt, and implement, either Stream Buffer Protection Ordinance developed by the District, or an ordinance that is at least as effective. 2) Develop review and enforcement process and procedures. (2004-2005) 3) Document compliance, violations and enforcement actions. (Beginning in 2006 and ongoing)	Y					Enforcement is handled by the Cobb County Community Development Departments Environmental Compliance group and by their Erosion Control Division. The enforcement process is documented in OCCS Section 50-75. We have collected our enforcement documentation and typically include it in our MS4 annual report.

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
C.2. Develop and implement Operations and Maintenance Activities (pages 5-11 through 5-12, and 9-6).						
Actions: Local Governments should clearly assign stormwater inspection and maintenance responsibilities, whether they be accomplished by the local government, land owners private concerns, or a combination of these. All jurisdictions in the District should perform the following activities: 1) Define the maintenance responsibility and level of service for the local government (i.e. the parts of the stormwater system and the types of services that the local government will be responsible for). 2) Perform an inventory of the local stormwater system (including facility and conveyance locations, elevations, outfalls, contributing drainage, receiving drainage, control structures, material types, vegetative species and any other pertinent information necessary to defining the kind of maintenance required for the facility or conveyance). 3) Develop a schedule for periodic inspections and maintenance of stormwater facilities. 4) Develop an emergency response strategy. 5) Develop policies for private stormwater facilities and the necessary legal framework to ensure compliance. 6) Inventory and Map 20% of their jurisdiction during 2007, and 10% annually thereafter. 7) Develop and Implement Stormwater O&M Plan during 2007, and implement during the following years. 8) Track and document Stormwater O&M activities in each year. 9) Develop capital improvements and repair strategies in 2007. 10) Implement repair of damaged and failing systems in 2008 and ongoing years. 11) Develop and implement Capital	Y				1) Cobb County Stormwater Management Manual; OCC, Sections :50-111, 50-112, 50-141, 110-61) 2) ref. CCWS-SWM Access Drainage Structure Inventory Database 3) Cobb SWM "ACCESS" geodatabase; MAXIMO-EMA work order system (in progress) 4) CEMA Pre Disaster Mitigation (PDM) July 18, 2005.	1) Cobb County maintains only those facilities that are on public property (including the public roadway Right of Ways) and those stormwater management facilities that have been formally dedicated to the County AND have been formally accepted by the Cobb County BOC for perpetual maintenance. All other facilities are considered private SWM facilities which are to be maintained by the property owner(s). 2) We estimate approximately 125,000 storm drainage structures currently exist in Cobb County including approximately 100,000 storm drainage structures in Unincorporated Cobb County. Of these, approximately 27,000 structures have been inventoried to date. Two in-house 2-man field crews have been assigned to collect SWM inventory data on a full time basis and one project manager has been assigned to review the field-collected information and incorporate the database in the county's GIS. In addition we have hired another Environmental Compliance Technician position to assist with the collection and inspection of private (commercial and HOA) stormwater detention ponds. It is anticipated that without further outside assistance, this work will be completed by the end of 2013. 3) Operation and Maintenance as well as Capital Improvement Projects (CIP's) are tracked through the SWM's database, which was internally developed.

* Must provide implementation dates and/or schedule for completion.

Improvement Plan for retrofits in 2008 and ongoing years.

Currently, we are transitioning to a Department wide "MAXIMO-EMA" work order system which is expected to improve the way we track and assign maintenance and resources.

3) Utilizing in-house crews exclusively we are currently inspecting and inventorying roughly 1200 structure per month (or 14,400) per year, which exceeds what we committed to do in our July 18, 2006 GaEPD audit.

4) The Cobb County Emergency Management Agency (CEMA) has developed a countywide pre-disaster mitigation response strategy to All hazards. The Cobb County Water System as well as Cobb DOT have maintenance crews on standby to respond to emergencies on a daily basis (24/7) and an emergency dispatch phone number ((770) 410-6201), as well as a county website www.cobbwater.org that the general public can use to report emergencies. Cobb County Fire Department responds to HAZMAT emergencies. CEMA manages flood emergency evacuation operations according to its internal policies and procedures.

5) Ref. OCCC Sections 50-111, 50-112, 50-141, and 110-61(f)

6) It is believed that in excess of 20% of SWM system in Unincorporated Cobb County has been inventoried and mapped by the end of 2007. We anticipate inventorying and mapping approximately 14400 structures per year (14.4 %) until this SWM inventory effort is complete.

7) We have been prioritizing O&M efforts according to urgency (i.e. REACTIVE RESPONSE)

* Must provide implementation dates and/or schedule for completion.

						which is variable. As opportunities have permitted in 2007, we have been "folding in" projects which we have discovered during our inventory effort (PROACTIVE RESPONSE). During the recent drought it is estimated in 2007 that at least 25% of our projects were those discovered during our inventory. 80SWM O&M activities have been tracked and documented on our internally developed ACCESS geodatabase. In the near future (2008) this tracking system will migrate over the MAXIMO-EMA work order system. 9) As discussed above, capital improvement and repair strategies in 2007 were prioritized according to need. Efforts were made in 2007 to "proactively" perform 25%-30% project discovered during the SWM inventory process. 10) Damaged and failing SWM system will be repaired in 2008 and in ongoing years according to public safety needs and urgency. Systems which have not yet failed but are in poor condition will be addressed subject to available resources. 11) In 2008 efforts will be made to set up a countywide mitigation bank in Cobb County. Revenues generated (if any) will be used to acquire floodplain properties and restore heavily impacted streams and wetlands on county-owned properties.
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* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
C.3. Establish Municipal Good Housekeeping Practices for local government facilities and operations (pages 5-13, and 9-7).	Y				CCWS Community Partners for Healthy Streams	Series of eight pamphlets of various related topics-survey forms are included for return to the Water System and advise/tracking. These were developed in partnership with the local business community and are being distributed to businesses and institutions.
Actions: 1) Beginning in 2005, and ongoing, the local government should implement the Municipal Good Housekeeping Practices for landscaping, site management, and vehicle maintenance.					SP3 audits/reports for public facilities with pollution potential	Topics of pamphlets are as follows: a. Housekeeping Practices b. Maintaining Engineered Stormwater Controls c. Maintaining Equipment and Vehicles d. Maintaining Buildings and Pavement e. Maintaining Landscapes f. Site Design and Construction g. Managing Wastes h. Education DOT Street Sweeping See in-house SP3 audits for public facilities in Cobb County with pollution potential

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
C.4. Active participation in a public education program (pages 7-1 through 7-14, and 9-16 through 9-17).	Y				CCWS Public Education Program "the Portrait of Excellence"	Cobb County Water System staff members: Jennifer McCoy, Cobb's Adopt-A-Stream Manager, Kathy Nguyen, CCWS's Water Conservation Manager, and Sabrina Pemberton-Piper are members of the Education Subcommittee of the MNGWPD/CWC. Cobb County provides financial support to the MNGWPD and Cobb County won the State award for public education in 2006.
<i>Currently, there is already a collaborative public education initiative, the Clean Water Campaign (CWC), that brings together local, state, and federal government agencies, environmental and community groups, and corporate partners who all share the common vision of protecting water quality in metro Atlanta. Three elements have been incorporated into the campaign:</i> <i>1) Public Awareness Campaign. This element will use multiple techniques to present awareness information to the target audience.</i> <i>2) Outreach & Education to Key Target Groups. The Metro District will develop programs to educate target groups of individuals who have some level of influence over nonpoint source pollution. Potential contributors to this pollution have been identified, as well as the groups that have the greatest influence over these sources.</i> <i>3) Primary & Secondary Education. It is crucial to train the next generation of watershed stewards as early as possible.</i> Actions: The local government must either actively participate in the CWC, or implement its own public education program. <i>1) If they actively participate in the Clean Water Campaign they must actively participate in the three elements listed above. This will require:</i> <i>a) Public Awareness Campaign: The local government must help to decide which techniques the CWC will use to present awareness information to the target audiences.</i> <i>b) Outreach & Education to Key Target Groups: The local government must review the programs developed by the CWC to educate the target groups and implement those programs that are applicable to their community.</i> <i>c) Primary & Secondary Education: The local government must train the next generation of watershed stewards, at both the primary & secondary levels. They may want to take advantage of State Programs or Programs sponsored by the CWC.</i>					Cobb County Stormwater, National Flood Insurance and You! -2001 Adopt-A-Stream - 2002 Easements, What You Should Know - 2002 Community Partners for Healthy Streams (8 booklets) – 2004 Protecting and Maintaining Small Streams and Open Channels – 2005 Water Efficiency Audit – 2005 Community Partners for Healthy Streams (brochure) – 2005 Customer Information Guide – 2006 Cobb Water did target mailing using CWC materials: Auto Body and Repair Shops -2005 Pet Waste – 2005 Landscape Industry - 2006	1) Public Awareness: In addition to the mass media efforts organized through the District, Cobb County utilizes our in-house Communication Department to reach Cobb residents. The tools we've utilized include running PSAs and education spotlights on our local cable access channel (TV23), publishing community announcements and articles in our water bill insert (CobbLine), and updating our website to include important announcements, opportunities and education information. We continue to educate the community through outreach programs, displays at community events, and the development and distribution of brochures and fact sheets and the use of promotional items such as rain gauges, bookmarks and magnets. 2) Outreach and Education to Key Target Groups: Cobb County has reviewed and implemented the program materials provided by the District as well as developed education tools in-house to reach the key target groups identified in Section 7. The method for the dissemination of materials, training and tools includes direct mailing, site visit, community meeting and workshop events offered throughout the year. The outreach and education efforts of Cobb County staff continue to be recognized, most recently by GA Conservancy and Georgia Adopt-A-Stream for our education programs. The focus in 2007-2008 has been the expansion of outreach and education efforts targeted at the auto industry beyond the District education materials. We developed a self-audit checklist that was piloted in the Mableton area to increase awareness and understanding of the potential water quality pollutants and BMP's that facilities should be mindful of as a responsible business operating in Cobb County. 3) Primary and Secondary Education: Facilitators for both Project WET and Georgia Adopt-A-Stream are on staff at Cobb Water. We continue to train the next generation of watershed stewards, working at both the primary & secondary levels. In the 2007-2008 school year, over 1000 students have participated in water quality outreach presentations, 192 students have been certified GA Adopt-A-Stream Chemical Monitoring Volunteers and 76 teachers have attended water-focused EE curriculum offered in Cobb County.

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
C.4. Active participation in a public education program (continued). 2) If the local government will implement its own public education program, the proposed program must address water quality issues and be described in the Stormwater Management Program. The above three elements must be part of the public education program. This will require: a) Public Awareness Campaign: The local government must decide which techniques to use to present awareness information to the target audiences. b) Outreach & Education to Key Target Groups: The local government must develop and implement programs to educate the target groups. c) Primary & Secondary Education: The local government must train the next generation of watershed stewards, at both the primary & secondary levels. They may want to take advantage of State Programs.						

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
C.5. Develop and implement a water quality monitoring plan. (pages 9-20, and amendments passed on 2/2/06 and 4/26/06).	Y				MS4 Annual Report, 2006 The Stormwater Management Report dated December 15, 2003; revised February 1, 2005; revised July 8, 2005; revised December 9, 2005	Annual MS4 Report includes Cobb County's Stream Monitoring Procedures and Data, including chemical and biological. Ref: CCWS's Illicit Detection and Elimination Program; CMOM and I&I Program

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The purpose of the monitoring plan and associated standards and methodologies is to provide for comprehensive and consistent watershed-based water quality monitoring across the District that can assist in identifying water quality impairments and improvements, and can be used to help evaluate the effectiveness of the District-wide Watershed Management Plan (WMP). The recommendations included in this plan also are intended to help local governments meet their existing regulatory monitoring requirements, including those of the Phase I National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Stormwater Permit, Georgia Environmental Protection Division (GAEPD) watershed assessment plans, and Total Maximum Daily Load (TMDL) program.

There are multiple elements to be implemented by each local government, and some to be shared between local governments within each County. The associated local governments would be advised to meet to discuss sharing of responsibilities. All the monitoring programs are required to be operational during 2007.

Actions (page 8-1 thru 8-20, and 9-20, and amendments passed on 2/2/06 and 4/26/06):

- 1) Implement biota and habitat sampling on 20% of HUC-12 stations in jurisdiction. All stations to be sampled every 5 years.
- 2) Implement long-term ambient monitoring plan to collect 6 wet weather, 2 baseflow, and 3-4 fecal coliform (fecal) geometric means from all long-term monitoring stations.
- 3) Implement commercial/industrial inspections at the number of sites specified in the Monitoring Plan prioritized based on data collected for water quality monitoring.
- 4) Annually implement dry weather illicit discharge screening on number of sites specified in the monitoring plan OR annually implement pedestrian streamwalk program on 10% of stream miles in jurisdiction per year, to complete all stream miles every 10 years.
- 5) Implement TMDL monitoring following GAEPD protocols on all streams with TMDL Implementation Plans.
- 6) Implement governmental facility inspection program to evaluate facility operation and good housekeeping.
- 7) Provide data to District.

1) Cobb County Water System Watershed Monitoring Program Annual Report, 2003-2007.	1) Cobb County has historical biota and habitat sampling data on most of our streams dating back 20 years or more.
2) Cobb County Stream Monitoring Program, (Background and Procedures), October 2005. Ref. USGS website (www.usgs.gov)...for 13 existing streamflow gages.	2) Currently Cobb County has 13 continuous streamflow monitoring gages in place which were installed and are maintained and operated by USGS. All of these gages measure continuous stream flows, stages, and precipitations. The USGS gage on Allatoona Creek at Stilesboro Road also performs automated water quality sampling. Water Quality sampling/monitoring is also performed in-house utilizing automatic samplers at Worley Road on Little Noonday Creek and at the USGS gage located at Roswell Road on Sope Creek. If budget will allow we plan to retrofit automated samplers at 6 more of these gages in 2008 and the remaining 5 in 2009.
3) Phase 1 MS4 Annual Reports, (2005 & 2006).	3) Ref: Phase 1 MS4 Annual Report, March 2005
4) Phase 1 MS4 Annual Report, (2005 & 2006)	
5) Chattahoochee TMDL Implementation Plan	
Coosa TMDL Implementation Plan	
6) Phase 1 MS4 Annual Reports (2005 & 2006)	
The "Stormwater Management Annual Report" dated December 15, 2003; revised February 1 2005; revised July 8, 2005; revised December 9, 2005	
7) Phase 1 MS4 Annual Reports (2005 & 2006)	

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						and 2006; "New SIC/Highly Visible Pollutant Sources Inventory and Inspections.
						4) The 70 sites identified for dry weather screening in FY06 have been expanded to 122 sites which include dry weather screening sites performed by the incorporated jurisdictions in Cobb County and by the Cobb County Stormwater Water Quality Section.
						5) See responses below to item C.6.1
						6) See commercial Industrial inspection program and good housekeeping programs documented in these reports.
						7) Cobb County will provide data to the District upon request.

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	N	In Process*	Document Reference	Comments
C.6. Total Maximum Daily Load Strategies (pages 5-15 through 5-19, and 9-10 thru 9-11)						
<i>There are many stream segments within District boundaries that do not meet their designated uses and that require TMDLs and TMDL plans. Several Regional Development Centers (RDCs) have been assisting local governments and GAEPD in developing specific TMDL implementation plans. Local governments should follow the recommended process, in conjunction with GAEPD and the RDCs, to refine the TMDL implementation plan for each listed stream segment. A key element of these plans will be coordination with other local governments in watersheds that cross jurisdictional boundaries.</i> Actions: 1) Confirm parameter violations. (2004-2005) 2) Identify sources. (2004 and ongoing) 3) Develop and implement TMDL Plans. (2004 and ongoing) 4) Develop and implement inter-jurisdictional agreements where appropriate. (2005 and ongoing)	Y				1) "Georgia EPD Summary of changes to the 2006 (from the draft 2004) 305(b)/303(d) List", received April 18, 2006. 2) Chattahoochee TMDL Implementation Plan Coosa TMDL Implementation Plan	1) At this point in time, Cobb County does not intend to challenge GAEPD's determinations of the TMDL-listed segments. 2) It is our current understanding that the E. Coli standards have not yet been mandated by either the District or by GAEPD. 3) Chattahoochee TMDL Implementation Plan includes the following streams in Cobb County: Bishop Creek Rottenwood Creek Sewell Mill Creek Sope Creek Chattahoochee River Nickajack Creek Buttermilk Creek Mud Creek Olley Creek Luther Ward Creek Sweetwater Creek Noses Creek Powder Springs Creek ...implementation ongoing Coosa TMDL Implementation Plan includes the following streams in Cobb County: Noonday Creek Little Noonday Creek Butler Creek Proctor Creek Tanyard Creek Allatoona Creek Little Allatoona Creek Little Allatoona Creek Rubes Creek Trickum Creek Due West Creek Pitner Creek ...implementation ongoing.

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							4) Sweetwater Creek is shared with Paulding County. Cobb County has a verbal agreement with Paulding county water quality group to provide mutual assistance in resolving issues related to impacts on water quality in the basin. Ongoing. The Upper Etowah River Basin Planning Group is an alliance between Cobb County and all the jurisdictions comprising the watershed area of the upper Etowah. This includes the Marietta Water Authority, Cherokee County, Lumpkin County, Pickens County, Forsyth County and Dawson County and Dahlonega.

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Requirement	Y	N	NA	In Process*	Document Reference	Comments
C.7. Source Water Protection Strategies (pages 5-20 through 5-25, and 9-12 thru 9-13): C.7.1. Implement Part V Environmental Planning Criteria.						
<i>Because of limited groundwater resources in the District, the vast majority of public drinking water supplies comes from surface waters. Public drinking water sources that have degraded water are more costly to process and pose human health threats. Therefore, watersheds that serve as sources for municipal drinking water supplies must be protected. O.C.G.A. provides the legal authority for protecting water supply watersheds. Code Section 12-2-8(b) authorizes the Georgia Department of Natural Resources (GADNR) to develop minimum standards and procedures for protection of mountains, river corridors, watersheds to be used for public water supply, the purity of groundwater, and wetlands; these standards have been prepared and are commonly known as the Part V Environmental Planning Criteria.</i> Actions: 1) Enforce setback and buffer restrictions in small and large source water supply watersheds. (Beginning in 2005 and ongoing) 2) Utilize planning process to maintain impervious cover limits in small water supply source watersheds. (Beginning in 2005 and ongoing)						1) Impervious setbacks are: 150 feet for perennial streams within 7-mile radius of reservoir boundary. 75-feet for perennial streams in small watersheds tributary to the water supply and beyond the 7-mile radius. Buffers are: 100 feet for large and small watersheds within the 7-mile radius. 50-feet plus a 25 foot impervious setback for perennial streams in small watersheds, tributary to the small water supply and beyond the 7-mile radius. 2) Streambuffers in Cobb County are enforced by the Cobb County Community Development Department (see enforcement documentation). 3) GIS electronic maps have been generated which depict a 7-mile radius around each of the 2-source water intakes in Cobb County (on the Chattahoochee River upstream of the Johnson's ferry Road ridge and in Lake Allatoona immediately upstream of the CSX railroad bridge crossing on the Allatoona Creek arm of the lake. Appropriate setbacks and buffer restrictions within these watersheds have been incorporated. Although multi-purpose reservoirs owned by the U.S. Army corps of Engineers (including Lake Allatoona) have been exempted from the provisions of the GAEPD rule, the Cobb

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						County Board of Commissioners adopted the buffers applicable to large watersheds, to help protect the county's source water supply.
						4) Exemptions not withstanding, since the intake in the Chattahoochee River intercepts a drainage area in excess of 1400 square miles, and the intake on Allatoona Creek occurs within the body of Lake Allatoona and Lake Allatoona intercepts a combined watershed area in excess of 1100 square miles, we assert, (and GAEPD concurred at the time of our previous audit in July 2005) that both intakes occur within "large watersheds" and are subject to the buffers and impervious offsets applicable to "large watersheds," but are NOT subject to the 25% impervious caps subject to "small watersheds" .
C.7.2. Identify source water supply watersheds requiring inter-jurisdictional cooperation. Actions: Develop and implement inter-jurisdictional agreements for applicable watersheds. (2006 –and ongoing)						
			NA			Not Applicable

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Requirement	Y	N	NA	In Process*	Document Reference	Comments
C.7.3.Implement Source Water Protection Strategies (pages 5-20 through 5-25, and 9-13)						
Actions: 1) Identify businesses & industries that: a) are in source water protection areas & are potential polluters. (2004) b) may be using transportation routes near water sources. (2004) c) use or store hazardous materials (2004) d) store fuel in underground storage tanks. (2004) 2) Distribute educational materials to the above identified businesses and industries. (2005) 3) Evaluate new businesses and industries to see if they fit the above descriptions. (2005 and ongoing) 4) Distribute educational materials to any new businesses and industries that fit the above descriptions. (2006 and ongoing)	Y					1-4) Cobb County plans to adopt the "broad brush" public education approach for ALL businesses wherein a CD containing educational brochures, guidelines and approaches for watershed protection strategies would be distributed when a business applies for a new business license or renews an old one. The CD containing this information is a work in progress, although a draft CD currently exists for review. Printed documents from this CD would also be made available. We are targeting April 2008 to put this program into effect. (Note that as of the date of the October 30, 2008 audit, the CD referenced above has been prepared and 100 CD's have been made available for distribution at

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Cobb County's Business License Renewal office).						

* Must provide implementation dates and/or schedule for completion.

Requirement	Y	N	NA	In Process*	Document Reference	Comments
C.8. Watershed Improvement Plans (pages 5-25 through 5-28, and 9-14 thru 9-15, and amendment passed 2/2/06)						
<i>Watersheds have been shown to exhibit degradation of water quality and aquatic habitats when the effective impervious area (EIA) exceeds 10%. Under these conditions, runoff volumes and flow rates area greatly increased following precipitation events. Surface waters are subjected to greater erosive forces, resulting in physical alterations to stream habitat, including channel incision and bank erosion. Physical and chemical components of runoff can be deposited in sediments and alter water chemistry. Within the District, watersheds with EIA greater than 10% have been designated as "substantially impacted watersheds". Without implementation of measures to address the stormwater runoff from these substantially impacted watersheds, stream conditions will continue to worsen and water quality goals will not be achieved.</i> <i>In substantially impacted watersheds, watershed improvement plans containing measures to improve watershed conditions will be required. These watershed improvement plans will identify causes of degradation and specify the watershed retrofits for restoration needed to meet water quality goals and/or return these areas to desired conditions in subwatersheds where problems are identified. Construction of additional BMPs for hydrologic and water quality controls may be included and local governments may be encouraged to purchase and restore greenspace along impacted waters.</i> Actions: 1) Work with District and Technical Coordinating Committee to develop specific guidance on watershed improvement plan implementation. (2005-2006) 2) Develop schedule for watershed improvement plan development based on watershed priorities. (2006-2007) 3) Evaluate Retrofit and Restoration Alternatives in 1st priority watershed. (2007) 4) Develop watershed improvement plan for 1st Priority Watershed. (2007-2008) 5) Evaluate Retrofit and Restoration Alternatives in 2nd priority watershed. (2008) 6) Develop watershed improvement plan for 2nd Priority Watershed. (2008 and ongoing) 7) Include watershed improvement plan projects into capital improvement plans and implement as funding permits. (Beginning in 2008 and ongoing.)	Y					Since 1996, Cobb County has employed an aggressive floodplain land acquisition program and floodplain home buyout program utilizing GEMA FMA and HMGP grants. This year we will dovetail this floodplain land acquisition program with an Umbrella Mitigation Banking Instrument. Conceptually we plan to target streams and wetlands which have been heavily impacted by urbanization, and turn these areas, many of which are already owned by Cobb County into mitigation banks. We currently have a plot mitigation project underway along a 2000 linear ft reach of Allatoona Creek under GAEPD 319h grant. 5, 6 & 7) WIP Allatoona Cr 1) Cobb County participates with the District TCC to develop specific guidance on watershed improvement plan implementation.

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						2) Schedule for generation and implementation of watershed plans (see discussion above). 3) Inventories have been completed for Priority Areas 1-4 for large diameter stormwater management facilities.(approximately 25,000 structures). Work continues to complete Stormwater Management facility inventory countywide. So far this work is being done exclusively "in house", and schedule for completion has been revised (pushed back) to 2013. 5, 6 &7) Retrofits and Restoration Design Alternatives underway in a GA EPD 319 Grant for Allatoona Creek, and in Noonday Creek. Habitat Restoration and Streambank Stabilization Plans will have been submitted to GAEPD by December 1, 2008. Watershed Improvement Plan is currently underway (WIP) in Noonday Creek watershed..
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* Must provide implementation dates and/or schedule for completion.