

Georgia Coastal Nonpoint Program Findings

GEORGIA COASTAL NONPOINT PROGRAM FINDINGS AND CONDITIONS

FOREWORD

This document contains the findings for the coastal nonpoint pollution control program submitted by the State of Georgia pursuant to Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA). The findings are based on a review of the Coastal Georgia Nonpoint Source Pollution Management Program submittal November 1999, and supplemental material provided by Georgia subsequent to the program submittal. The National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA) reviewed this information and evaluated the extent to which it conforms with the requirements of CZARA.

NOAA and EPA commend Georgia on the substantial amount of time and effort put into developing the program, and we appreciate the commitment the State of Georgia has shown to complete an ambitious task with limited resources. We will continue to work with Georgia to ensure that these findings represent an accurate assessment of current State capabilities and efforts to address coastal nonpoint source pollution.

APPROVAL DECISION

NOAA and EPA approve the coastal nonpoint pollution control program submitted by the State of Georgia pursuant to Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990, subject to certain conditions.

This document provides the specific findings used by NOAA and EPA as the basis for the decision to approve the Georgia program. It also provides the rationale for the findings and includes conditions that will need to be met for Georgia to receive final approval of its program. The timeframes associated with conditions become effective on the date of the approval letter for these findings.

INTRODUCTION

This document is organized by the major nonpoint source categories and subcategories identified in the section 6217(g) guidance and the administrative elements identified in the program guidance (including the boundary for the 6217 management area). Where appropriate, NOAA and EPA have grouped categories and subcategories of management measures into a single finding. The structure of each finding follows a standard format. Generally, the finding is that the State program includes or does not include management measures in conformity with the (g) guidance and includes or does not include enforceable policies and mechanisms to ensure implementation. For further understanding of terms in this document, the reader is referred to the following:

Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters (EPA, January 1993)

Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance (NOAA and EPA, January 1993)

Flexibility for State Coastal Nonpoint Programs (NOAA and EPA, March 1995)

Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) (NOAA and EPA, October 1998)

The references in this document refer to the Coastal Georgia Nonpoint Source Pollution Management Program submittal November 1999 (“program submittal”). NOAA and EPA have written this document as succinctly as possible. We have relied upon, but do not repeat here, the extensive information that the State has included in its program submittal. Further information and analysis, including material provided by Georgia subsequent to the program submittal, is contained in the administrative record for this approval decision and may be reviewed by interested parties at the following locations:

EPA/Office of Wetlands, Oceans and Watersheds
Assessment & Watershed Protection Division
Nonpoint Source Control Branch
1200 Pennsylvania Ave, NW
Room 7417-G, MC 4503-T
Washington, DC 20460
Contact: Stacie Craddock (202/566-1204)

NOAA/Office of Ocean and Coastal Resource Management
Coastal Programs Division
SSMC-4, N/ORM3

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1305 East-West Highway
Silver Spring, MD 20910
Contact: Chris Rilling (301/713-3155, x198)

US EPA Region IV
61 Forsyth St. NW
Atlanta, GA 30303
Contact: Robert B. Howard 404/562-9370

I. BOUNDARY

FINDING: Georgia's proposed 6217 management area excludes existing land and water uses that reasonably can be expected to have a significant impact on the coastal waters of the State.

CONDITION: Within one year, the Georgia Department of Natural Resources, U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration and other relevant State, local, and Federal agencies will participate in a cooperative process to determine an appropriate 6217 management area boundary to protect the State's coastal waters from nonpoint source pollution.

Georgia's program will include management measures in conformity with the (g) guidance, and enforceable policies and mechanisms that ensure implementation of the management measures throughout the 6217 management area.

RATIONALE: Georgia's program has proposed a 6217 management area coincident with the State's coastal zone boundary. The area includes all coastal Georgia counties plus those counties immediately inland (west) and adjacent to the coastal counties. Georgia has identified several existing sources of nonpoint pollution emanating from areas just outside the proposed 6217 management area. They include animal waste runoff from Bulloch, Appling, and Tattnall Counties, and 23 impaired waterbodies from the 303(d) listed waters in adjacent inland counties, most of which are due to nonpoint source pollution. Georgia has not provided a rationale for the proposed 6217 management area in the program submittal, or justification for why the impaired waterbodies would not have a significant impact on coastal waters. Based on the information provided, NOAA and EPA believe that the proposed 6217 management area excludes existing land and water uses that have a significant impact on the coastal waters of the State.

II. AGRICULTURE

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FINDING: Georgia’s program includes management measures in conformity with the 6217(g) guidance, except it does not include facility wastewater and runoff from confined animal facilities management measures (large and small units), or nutrient management measures. The State should provide a legal opinion that clearly states that the back-up authorities can be used to prevent nonpoint pollution and require management measure implementation. The State should strengthen its description of the voluntary or incentive based programs to implement the management measures, the description of the mechanism or process linking the implementing agency with the enforcement agency and its commitment to use the enforcement authority where necessary.

CONDITION: Within two years, Georgia will include in its program management measures for facility wastewater and runoff from confined animal facilities management measures (large and small units) and nutrient management measures in conformity with the 6217(g) guidance. Within one year, Georgia will submit a legal opinion and supporting documentation to demonstrate that back-up authorities can be used as enforceable policies and mechanisms to implement the agriculture management measures throughout the 6217 management area, as described in the *Final Administrative Changes* (see Section XIV.)

RATIONALE: The Georgia Soil and Water Conservation Commission (SWCC) is the lead agency for prevention of agricultural nonpoint pollution in the State. The SWCC develops nonpoint source water quality programs and conducts educational activities to promote conservation and protection of land and water resources devoted to agricultural use. Georgia’s 40 Soil and Water Conservation Districts (SWCD) provide technical assistance to help local producers plan and establish needed soil and water conservation practices. There are several other local, State and Federal programs which target agricultural nonpoint sources of pollution. These include the Natural Resources Conservation Service (NRCS) which provides financial and technical assistance to landowners for implementation of animal waste management systems, grazing activities, plant materials, and other Best Management Practices (BMPs), the University of Georgia Cooperative Extension Service which collaborates with and trains farmers and staff from the other agricultural agencies in several areas, including pesticides handling certification, fertilizer application, and crop management, and Resource Conservation and Development Councils that encourage wise conservation of natural and human resources.

An Agricultural/Irrigation Technical Task Force has developed a BMP guide for farmers entitled “Agricultural Best Management Practices for Protecting Water Quality in Georgia.” (BMP Guide). The BMP Guide is promoted by the SWCC and the NRCS through educational programs and BMP demonstration workshops. BMPs are also implemented through Federal cost share programs such as the Conservation Reserve Program, and disincentives such as revocation of financial assistance through the Farm Bill Sodbusters Program and Conservation Compliance Program.

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The BMP Guide contains practices in conformity with the 6217(g) management measures, except for nutrient management and runoff from confined animal facilities management measures (large and small units). For the nutrient management measure, although the BMP Guide identifies the elements of nutrient management, it does not recommend developing a nutrient management plan, which is the guiding principle behind the 6217(g) nutrient management measure. Similarly, the joint USDA and EPA Comprehensive Nutrient Management Plan is targeted only at animal feeding operations and not the entire range of agricultural activities that need to be addressed under a nutrient management plan. Currently, only certified planners in the Natural Resources Conservation Service (NRCS) and the University of Georgia Cooperative Extension Service (UGACES) are responsible for drafting Comprehensive Nutrient Management Plans (CNMPs). NOAA and EPA encourage Georgia in their efforts to expand the program to certify not only NRCS and UGACES staff, but also private consultants in CNMP development.

Regarding animal facilities, the Georgia Environmental Protection Division (EPD) regulates handling of large agricultural and animal waste facilities through a permitting process. The permitting process does not apply to all confined animal facilities that need to be addressed under the 6217 program. For example, the Georgia standard is a minimum of 700 dairy cows and 100,000 laying hens or broilers, while the §6217(g) measures apply to a minimum of 20 dairy cows and 5,000 laying hens or broilers (the small unit measure), and 70 dairy cows and 15,000 laying hens or broilers (the large unit measure).

For the smaller facilities covered by the CZARA management measures but not addressed in Georgia's permit program, there does not appear to be a program to promote widespread implementation of the measures. NOAA and EPA encourage Georgia to update the brochure to include all of the (g) management measures and promote its wide-scale distribution and adoption as a means to address the measures, and to provide additional information on linking mechanisms between voluntary programs described above and the enforcement capabilities detailed in the legal opinion. The "Guidelines for Handling Commercial Forestry Complaints" (described under Forestry Management Measures below) is the type of information describing the linkage between the implementing agency and the enforcement agency that NOAA and EPA are looking for.

For agriculture, the primary enforcement authority is the Georgia Water Quality Control Act (OCGA 12-5-20), and the authority under which the Environmental Protection Division (EPD) of the Department of Natural Resources (DNR) is authorized to develop river basin management plans (OCGA 12-5-520). Upon adoption of a basin plan, all permitting and other activities under the control of the DNR are to be consistent with the plan.

The Georgia Water Quality Control Act authorizes EPD to revise and enforce rules and regulations governing water quality and quantity, and set National Pollutant Discharge Elimination System (NPDES) permit conditions and effluent limits. To the extent that farmers

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fail to effectively manage pollutants originating on their site and cause pollution of State waters, the EPD enforces the Georgia Water Quality Control Act. If cooperation is not forthcoming or if the violation poses immediate threat to public safety and health, EPD may issue fines and seek court-enforced actions.

The Georgia Pesticide Control Act and the Georgia Pesticide Use and Application Act (O.C.G.A. 2-7-90 *et seq*), which are administered by the Georgia Department of Agriculture (GADOA), regulate the proper use and application of pesticides and the certification of pesticide applicators. This includes the licensing and certification of commercial and private pesticide applicators and pesticide contractors. Producers are trained in the management measures in the GADOA's pesticide applicators certification programs which are in compliance with the 6217 management measures. The GADOA is the primary agency responsible for administering and enforcing laws directly related to the registration, distribution, sale, use and application of pesticides in Georgia. In order to establish compliance with all Georgia pesticides laws and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the GADOA maintains a staff which performs inspections regarding the registration, application, and sale of pesticides.

III. FORESTRY

FINDINGS: Georgia's program includes management measures in conformity with the 6217(g) guidance. Georgia has not provided sufficient justification to support a categorical exclusion of forestry from its coastal nonpoint program. The State should provide a legal opinion that clearly states that the back-up authorities can be used to prevent nonpoint pollution and require management measure implementation.

CONDITION: Within one year, Georgia will submit a legal opinion and supporting documentation to demonstrate that back-up authorities can be used as enforceable policies and mechanisms to implement the forestry management measures throughout the 6217 management area, as described in the *Final Administrative Changes* (see Section XIV.)

RATIONALE: Georgia's forests cover more than 2.6 million acres or 71 percent of the land area in the 11 coastal counties. Despite the commendable efforts to reduce nonpoint source pollution from forestry operations (detailed below), given the large amount of coastal lands devoted to forestry, the potential for nonpoint source loadings reaching coastal waters and impacting living coastal resources or human health remains. Therefore, the exclusion is not granted. However, as detailed below, Georgia's forestry programs are sufficient to meet the forestry management measures, so the programs are a fully approved element of Georgia's coastal nonpoint program.

The Georgia Forestry Commission (GFC) is the lead State agency responsible for supervising forestry operations in Georgia. The GFC has a comprehensive Best Management Practices for

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Forestry handbook (1999) which addresses the (g) management measures. These include guidelines for streamside management zones, permanent access roads and road construction, timber harvesting, reforestation, and forest chemical use. Education and outreach programs have been instrumental in increasing the adoption of these practices by forest landowners and timber harvesters and the forestry industry has shown leadership in promoting these efforts.

The GFC, which conducts random audits of forestry operations and BMP compliance, has found an average compliance rate of 88 percent. The GFC also conducts nonpoint source pollution control programs along two lines; a training program for employees of large commercial companies, and education and outreach to landowners who wish to harvest trees from their property. The GFC investigates complaints from the public about forestry operations and reports to the EPD and the EPA. The “Guidelines for Handling Commercial Forestry Complaints” describe the mechanism or process that links the implementing agency (GFC) with the enforcement agency (EPD) and a commitment to use the existing enforcement authorities where necessary.

However, despite these programs and the impressive results of the BMP compliance audits, the program submittal reports that there is a low rate of BMP compliance for small, private operators. NOAA and EPA are encouraged that Georgia is focusing education and outreach efforts on those private operators to boost their compliance rates.

NOAA and EPA commend Georgia for its forestry programs. The voluntary programs are comprehensive and seem to be implemented on a widespread basis.

IV. URBAN

A. NEW DEVELOPMENT

FINDING: The Georgia program does not include management measures for new development in conformity with the 6217(g) guidance. The State does not include management measures to reduce total suspended solids (TSS) by 80% after the construction site is permanently stabilized, or to maintain post-development peak runoff rates at pre-development levels in conformity with the 6217 guidance. The State should provide a legal opinion that clearly states that the back-up authorities can be used to prevent nonpoint pollution and require management measure implementation. The State should strengthen its description of the voluntary or incentive based programs to implement the management measures, the description of the mechanism or process linking the implementing agency with the enforcement agency and its commitment to use the enforcement authority where necessary.

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CONDITION: Within two years, Georgia will include in its program management measures in conformity with the 6217(g) guidance. Within one year Georgia will develop a strategy to implement the management measure throughout the 6217 management area. Within one year, Georgia will submit a legal opinion and supporting documentation to demonstrate that back-up authorities can be used as enforceable policies and mechanisms to implement the forestry management measures throughout the 6217 management area, as described in the *Final Administrative Changes* (see Section XIV). For activities exempted by the Erosion and Sedimentation Act, the State needs to strengthen its description of the voluntary or incentive based programs to implement the new development management measure, the description of the mechanism or process linking the implementing agency with the enforcement agency and its commitment to use the enforcement authority where necessary.

RATIONALE: Georgia proposes to address this management measure through a combination of regulatory authorities and voluntary mechanisms. The Georgia EPD is the lead agency in management of urban runoff, and the primary authority is the Erosion and Sedimentation Act (ESA). In accordance with the ESA, most of the local governments within the 6217 management area have adopted general erosion and sedimentation ordinances and have been given authority, with overview from EPD and the Soil and Water Conservation Districts (SWCD), to issue and enforce permits for land disturbing activities. In those areas where local governments have not been certified as an issuing authority, the EPD is responsible for issuing and enforcing land disturbance activities.

The ESA requires EPD to approve and periodically review local erosion and sediment control programs. The ESA does not require an 80% reduction in TSS after the construction site is permanently stabilized, or that post-development peak runoff rates be maintained at pre-development levels, as required by the new development management measure.

There are several exemptions which limit the ESA's jurisdiction over activities covered by this measure. These include construction of single-family residences not part of a larger development, projects involving 1.1 acre or less (except within 200 feet of State waters), construction or maintenance of roads by State and local governments, surface mining/quarrying and land clearing for quarrying, and land disturbing activities conducted by public utilities. However, the ESA does require all exempt activities to comply with BMPs contained in the *Manual for Erosion and Sediment Control in Georgia* published by the Georgia Soil and Water Conservation Commission.

To address this management measure, NOAA and EPA recommend that Georgia include provisions in the *Manual for Erosion and Sediment Control in Georgia* for reducing TSS by 80%, maintaining post-development peak runoff rate at levels that are similar to pre-development levels, and developing a plan to distribute the manual to the State and local agency staff,

developers, and contractors that conduct activities which are exempt from the ESA. In addition, Georgia should describe the process that links the implementing agency with the enforcement agency and its commitment to use the enforcement authority where necessary (for this measure, EPD may serve as both the implementing and enforcing agency, so the process should describe how EPD can enforce against sedimentation violations from activities exempt from the ESA). NOAA and EPA recommend that Georgia provide examples of how the Water Quality Control Act has been used to require implementation of management measures on an activity exempt under the ESA (this wasn't provided in the legal opinion).

Georgia has identified the Water Quality Control Act as a back-up enforcement mechanism for activities exempted under the Erosion and Sediment Control Act. Although the Act is sufficient to serve as a back-up authority, Georgia should provide a legal opinion supporting that conclusion. The State does not appear to have a plan in place to encourage the implementation of BMPs to those exempt activities, other than the methods listed above.

B. WATERSHED PROTECTION AND EXISTING DEVELOPMENT

FINDING: The Georgia program includes management measures for watershed protection, but does not include management measures for existing development in conformity with the 6217(g) guidance. The program includes enforceable policies and mechanisms to ensure implementation in portions of the 6217 management area, but not throughout the entire area.

CONDITION: Within two years, Georgia will include management measures in conformity with the 6217 (g) guidance and within one year, will include in its five-year program implementation strategy a plan to implement the management measures throughout the 6217 management area.

RATIONALE: In 1992 Georgia adopted a River Basin Management Planning (RBMP) approach to watershed protection (River Basin Management Planning Act, OCGA 12-5-520). The RBMP provides a framework of programs that collectively conform to the Watershed Protection and Existing Development measures. The River Basin Management Plan appears to be a mechanism that could meet the Existing Development Management Measure, but these plans are being phased in and currently do not have implementation components. NOAA and EPA suggest that the next iteration of plans developed under the River Basin Management Planning Act include priority issues and water quality management strategies. NOAA and EPA also would like Georgia to identify management practices to be scheduled and implemented in developed areas (i.e., priority urban retrofit opportunities to better protect and restore water quality and aquatic habitat). The program submission does not clearly include a such a priority list and schedule of prospective projects. This could be done as part of the River Basin Management Plan or through total maximum daily load (TMDL)/Watershed-Based Implementation plans.

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The Mountain and River Corridor Protection Act (OCGA 12-2-8) and the Georgia Planning Act (OCGA 12-2-8) provide minimum planning standards that deal specifically with the protection of water supply watersheds, groundwater recharge areas, wetlands, river corridors, and mountains. These criteria were developed by the Department of Natural Resources (DNR) as mandated in the two Acts. The criteria include vegetative buffers on streams and reservoirs, land use planning, river corridor protection plans, land development densities, and land use activities. The Metropolitan River Protection Act, Georgia Planning Act, State and local floodplain management programs, capital improvement programs, and other similar initiatives all play a role in helping the State meet the Watershed Protection management measures.

The University of Georgia Marine Extension Service and the Coastal Resource Division are launching a statewide Nonpoint Source Education for Municipal Officials (NEMO) program aimed at local government officials. NEMO, which was developed by the University of Connecticut, provides local officials with strategies and tools to deal with nonpoint source pollution problems. Development and implementation of this program may provide an important mechanism that could help meet the Existing Development condition.

The enforceable policies and mechanisms Georgia is relying on to meet the measures have either geographic or other limitations. The Erosion and Sedimentation Act requires a riparian buffer of 25 feet along the banks of State waters. The River Corridor Protection Act applies only to the Altamaha River within the coastal area, while the Source Water Assessment and Protection Act is only in effect in specifically delineated watersheds and wellhead protection areas. Other mechanisms that could be coordinated under the River Basin Management Planning approach, including TMDL implementation, local planning under the Georgia Planning Act, and NEMO have the potential to ensure that the management measures are implemented throughout the 6217 management area. NOAA and EPA recommend that Georgia describe in the five-year program implementation strategy how the RBMP and related programs will ensure implementation of the measures.

C. SITE DEVELOPMENT

FINDING: The Georgia program includes management measures for site development in conformity with the 6217(g) guidance. The State's program includes enforceable policies and mechanisms to ensure implementation throughout the 6217 management area.

RATIONALE: The Georgia Erosion and Sedimentation Act (OCGA 12-7-1) requires permits for land disturbing activities and provides authority for local governments to issue permits according to local ordinances. The Act requires EPD to approve and periodically review local erosion and sediment control programs. For exempt activities, the Act requires new construction practices to comply with BMPs contained in the Manual for Erosion and Sediment Control in

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Georgia, which meet the (g) management measures. The Manual includes requirements for a Land Disturbing Activity Plan, an Erosion and Sediment Control Plan, and provides a Model Soil Erosion and Sedimentation Control Ordinance. The Land Disturbing Activity Plan requires natural vegetative buffers of 25 feet measured from the stream banks (100 feet measured horizontally, adjacent to trout streams), minimizing disturbed areas, and stabilizing disturbed areas immediately. In addition, the Source Water Assessment and Protection Act requires a plan for protecting watersheds and wellhead areas.

D. CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL

FINDING: The policy of NOAA and EPA is to defer to the NPDES Phase II permitting program for the construction site erosion and sediment control management measure.

E. CONSTRUCTION SITE CHEMICAL CONTROL

FINDING: The Georgia program does not include management measures in conformity with the 6217(g) guidance for construction site chemical control. The State needs to provide a description of the voluntary or incentive based programs to implement this management measure, the description of the mechanism or process linking the implementing agency with the enforcement agency and its commitment to use the enforcement authority where necessary.

CONDITION: Within two years, Georgia will include in its program management measures in conformity with the 6217(g) guidance. Within one year Georgia will develop a strategy (as part of the 5-Year Implementation Strategy) to implement the management measures throughout the 6217 management area.

RATIONALE: Georgia proposes to address this management measure through the GDOT Worksite Erosion Control Manual, the Commercial Pesticide Applicator certification program, and distribution of a Construction Site Chemical Control Handbook, which has yet to be developed. The GDOT Worksite Erosion Control Manual only applies to construction projects under GDOT jurisdiction and not to all other road, highway and bridge construction projects. The GDOT Worksite Erosion Control Manual also does not include any management measures relating to construction site chemical control.

Georgia's commercial Pesticide Applicator Certification program trains professional landscape contractors in proper use, handling, and storage of pesticides. NOAA and EPA agree that this is an important program that addresses portions of the measure, but alone it is not sufficient to meet the measure for construction site chemical control. NOAA and EPA encourage Georgia to produce a Construction Site Chemical Control Handbook modeled after Virginia's, which

addresses the management measures. Use of the Handbook could allow Georgia to meet the measure once it is completed and distributed.

The Oil and Hazardous Material Spills or Releases Act may be an adequate enforceable policy and mechanism to ensure implementation of some elements of this measure, but the program submittal provides no information on this Act.

F. NEW AND OPERATING ONSITE DISPOSAL SYSTEMS

FINDING: Georgia's program includes management measures for new and operating onsite disposal systems (OSDS) in conformity with the 6217(g) guidance except it does not include measures for: (1) inspecting OSDS at a frequency adequate to ascertain whether OSDS are failing and (2) replacing or upgrading OSDS near nitrogen-limited surface waters. The State's program includes enforceable policies and mechanisms to ensure implementation throughout the management area.

CONDITION: Within two years Georgia will include in its program management measures for inspection and maintenance of existing OSDS and protection of nitrogen-limited surface waters in conformity with the 6217(g) guidance.

RATIONALE: The Georgia Department of Human Resources (GADHR) has primary authority to regulate individual onsite disposal systems, including septic systems. Enforcement is through Title 31 Chapter 3 of OCGA 31-3 which describes the establishment of County Boards of Health, which have the responsibility for enforcing regulations for OSDS. Each of the eleven counties in the 6217 management area has a health board, and each has adopted rules for implementing OCGA 31-3. GADHR Rules (Chap. 290-5-26) require that new OSDSs are located, designed, installed, operated, inspected to prevent the discharge of pollutants. Septic tanks are only inspected after installation and occasionally when a house with a septic system is purchased by a new owner. OCGA 31-3 does not require ongoing maintenance of nonmechanical residential sewage management systems.

County Boards of Health are required to provide standards for the installation of OSDS including specifying the locations within the county where on-site sewage management systems may be installed, specifying the minimum lot size or land area which may be served by an on-site sewage management system based on scientific data regarding on-site sewage management systems, specifying the types of residences, buildings, or facilities which may be served by on-site sewage management systems, issuance of permits, and inspection of systems.

According to Rules and Regulations for On-Site Sewage Management Systems no septic system shall be installed less than fifty feet from existing or proposed wells/springs, sink holes, or

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suction water lines, or less than twenty-five feet from lakes, ponds, streams, water courses or other impoundments. No absorption field will be constructed less than fifty feet from the normal water level of any impoundment, tributary, stream, or other body of water, including wetlands. OSDS may not be located where seasonal high ground water elevation is less than two feet below the bottom of the proposed absorption field, or less than one foot where aerobic pretreatment of the effluent has been used.

In addition, GADHR and EPD have developed a formal Memorandum of Understanding whereby GADHR will not permit any non-domestic septic system that accepts chemical wastes that could pollute groundwater.

OCGA 31-5 requires that the property owner be responsible for properly operating and maintaining the OSDS. Maintenance of the system must be in accordance with the Manual for Onsite Sewage Management Systems. Where OSDS are to serve facilities under separate ownership, a contract to insure proper operation and maintenance of the system signed by all owners is a precondition to the issuance of a permit for construction of the system. The County Board of Health is routinely asked to conduct performance evaluations of existing on-site sewage management systems. The evaluation includes inspection of installation records, maintenance records, and a site evaluation to determine current performance. This may be sufficient to meet the management measure for inspecting OSDS at a frequency adequate to ascertain whether OSDS are failing, if Georgia can provide better documentation as to the actual frequency of site inspections.

No information was provided on replacing or upgrading OSDS where conditions indicate that nitrogen-limited surface waters may be adversely affected by significant ground water nitrogen loadings from OSDS.

G. POLLUTION PREVENTION

FINDING: Georgia's program includes management measures for pollution prevention in conformity with the 6217(g) guidance.

RATIONALE: Georgia has a variety of pollution prevention and education programs including the Pollution Prevention Assistance Division (P2AD) of the Georgia DNR which provides educational assistance to citizens, community groups, industry, and schools, the University of Georgia Horticulture Extension Service which is developing guidelines and educational material for turf management throughout Georgia, and Adopt-A-Highway and Adopt-A-Stream programs.

Georgia has developed several good documents aimed at pollution prevention including Environmental Management Requirements for Stream and River Corridors in Georgia, Land

Development Provisions to Protect Georgia Water Quality, A Georgia Guide to Controlling Erosion with Vegetation, Guidelines for Streambank Restoration, and Landowners' Guide to Wetlands and Watersheds.

H. ROADS, HIGHWAYS, AND BRIDGES

FINDING: The Georgia program does not include management measures for roads, highways and bridges in conformity with the 6217(g) guidance. The State needs to strengthen its description of the voluntary or incentive based programs to implement the roads, highways, and bridges management measures, particularly for local and county projects, and the description of the mechanism or process linking the implementing agency with the enforcement agency and its commitment to use the enforcement authority where necessary.

CONDITION: Within two years, Georgia will include in its program management measures in conformity with the 6217(g) guidance. Within one year Georgia will develop a strategy to implement the management measures throughout the 6217 management area. Within one year, Georgia will submit a legal opinion and supporting documentation to demonstrate that back-up authorities can be used as enforceable policies and mechanisms to implement the roads, highways and bridges management measures throughout the 6217 management area, as described in the *Final Administrative Changes* (see Section XIV.)

RATIONALE: Georgia proposes to use several non-regulatory methods to implement the roads, highways and bridges management measures. They include the GDOT Design Guidelines, GDOT Standard Specifications and Special Provisions - Construction of Transportation Systems, and GDOT Construction Guidelines, and the GDOT Work Site Erosion Control Manual. The Georgia Erosion and Sedimentation Act is proposed as an enforceable policy and mechanism, and the Water Quality Control Act is the overall back-up authority. While these are all good and applicable measures for road, highway and bridge construction under GDOT jurisdiction, they do not apply to projects outside of GDOT jurisdiction. Furthermore, the Erosion and Sedimentation Control Act exempts construction or maintenance of roads by State and local governments. Although the Act specifies that exempt activities must still implement BMPs according to the Manual for Erosion and Sediment Control in Georgia, the Manual does not contain specific management measures for siting and design, runoff, or operation and maintenance for roads, highways, and bridges.

Georgia DOT specifications require specific erosion and sedimentation control measures during the life of construction contracts with Georgia DOT. The specifications provide guidance on design, construction, and maintenance of erosion control measures. In addition, the State Soil and Water Conservation Commission of Georgia has developed an On-Site Erosion Control Management Practices for Construction Activities booklet that addresses many of the (g)

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management measures, but no plan was provided for how the information is to be distributed. NOAA and EPA encourage Georgia to seek ways to distribute the booklet, particularly to local governments.

NOAA and EPA commend Georgia for its efforts in the siting and design of roads in the jurisdictional area of the Coastal Marshlands Protection Act. The GDOT, Ecological Services Branch of the Georgia Coastal Resources Division and the Environmental Protection Division coordinate on the review of proposed projects to minimize environmental impacts. NOAA and EPA recommend that Georgia implement similar practices for local and county road construction.

Unpaved roads are abundant in coastal Georgia, and are a significant contributor to sedimentation in waterways. In response, the Soil and Water Conservation Commission has adapted South Carolina's Manual for Unpaved Roads and is offering two BMP workshops to contractors and county staff, however NOAA and EPA were not provided this information for review.

County roads in Glynn, Chatham, and Camden Counties are often built in collaboration with the GDOT. In this event, the county roads are built and maintained according to the same specifications as GDOT roads, and a GDOT Worksite Erosion Control inspector supervises the worksite. NOAA and EPA commend Georgia for taking this action and recommend that similar efforts be pursued with other counties and local municipalities in the 6217 management area.

V. MARINAS AND RECREATIONAL BOATING

FINDING: Georgia's program includes management measures for marinas in conformity with the 6217(g) guidance. The program includes enforceable policies and mechanisms that demonstrate the primary authority's ability to ensure implementation throughout the 6217 management area.

RATIONALE: Georgia achieves the requirements of management measures for marinas and recreational boating through a combination of regulatory authorities and voluntary programs. NOAA and EPA commend Georgia for using Coastal Incentive Grant funds to develop the *Best Environmental Practices for Georgia Marinas* guidebook. The guidebook references the §6217(g) measures and contains practices that could implement all of the marina siting, design, operation, and maintenance measures. Since the guidebook is fairly new, NOAA and EPA encourage Georgia to undertake a concerted effort to educate marina developers, operators, and users about the BMPs contained in the book. NOAA and EPA also encourage Georgia to use the BMP manual to strengthen implementation of management measures for storm water runoff, fueling station design, sewage facility, liquid material, petroleum control, boat cleaning, maintenance of sewage facilities, and boat operation.

The Coastal Marshlands Protection Act and Shore Protection Act provide enforceable policies and mechanisms to implement the measures (for new and expanding marinas within the jurisdiction of those Acts). For marina operation everywhere and new and expanding marinas outside the jurisdiction of the Marsh and Shore Acts, Georgia cites the Water Quality Control Act as a back up authority that can be used to prevent nonpoint source pollution and implement management measures, as necessary.

VI. HYDROMODIFICATION

A. PHYSICAL AND CHEMICAL CHARACTERISTICS OF SURFACE WATERS AND INSTREAM AND RIPARIAN HABITAT RESTORATION

FINDING: The Georgia program includes management measures in conformity with the 6217 (g) guidance, except the program does not include development of an operation and maintenance plan for existing modified channels to improve physical and chemical characteristics of surface waters and identify opportunities to restore habitat in those channels. The program includes enforceable policies and mechanisms that ensure implementation of the measures throughout the 6217 management area, except for activities exempted by the Coastal Marshlands Protection Act.

CONDITION: Within two years, Georgia will include in its program measures that are in conformity with the 6217 (g) guidance for hydromodification. Within one year, Georgia will develop a strategy to implement the management measures throughout the 6217 management area. Within one year, Georgia will submit a legal opinion and supporting documentation to demonstrate that back-up authorities can be used as enforceable policies and mechanisms to implement the agriculture management measures for those activities exempted by the Coastal Marshlands Protection Act, as described in the *Final Administrative Changes* (see Section XIV.)

RATIONALE: Both of these measures contain three elements. The first two elements are to evaluate the potential effects and plan and design of new channelization and channel modification projects to reduce undesirable impacts. For activities under the jurisdiction of the Coastal Marshlands Protection Act and Erosion and Sedimentation Act, those authorities can be used to ensure implementation of the first two elements of both measures. These two management measures also have a third element which is to develop an operation and maintenance program for existing modified channels that includes identification and implementation of opportunities to improve and restore the channels. Georgia did not provide information in its program submittal on this element.

Georgia has a permitting process for channelization projects in freshwater and saltwater areas. For projects in estuarine areas, applicants must file a joint permit application operated through the Coastal Resources Division and the Army Corps of Engineers. The permits evaluate the impact of the activity on the estuary and on other resource interests in the vicinity such as

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recreational boating and shellfish harvest sites. The permit application is presented to the Coastal Marshlands Protection Committee which evaluates it for potential to obstruct or harmfully alter the natural flow of navigable water, increase erosion, or interfere with recreational and commercial fishing and shellfish harvesting, whether physically or due to alterations in water quality. The joint application includes an application for a Revocable License to transgress on State-owned water bottoms, and, in the event of a 404 designation, a Clean Water Act section 401 water quality certification issued by the EPD.

The Coastal Marshlands Protection Act (OCGA 12-5-280), the Shore Protection Act (OCGA 12-5-230), and the Georgia Erosion and Sedimentation Act (OCGA 12-7-1) are proposed as enforceable policies and mechanisms to meet the measures. For activities outside the jurisdiction of those acts, the Water Quality Control Act may provide the back-up authority to implement the measures (see Section XIV).

Exemptions to the Coastal Marshlands Protection Act include local and Federal Navigation projects, public utilities, railroad activities, GDOT projects, activities related to the Public Service Commission, and construction of private docks that do not cause an obstruction to tidal flow. Georgia needs to demonstrate its ability to implement management measures for physical and chemical characteristics and instream and riparian habitat restoration for the exempted activities and agencies.

The 401 water quality certification program may provide a mechanism for ensuring that State water quality standards are imposed for freshwater projects, as well as any other activity requiring a Federal permit.

The Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for Section §6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) addresses the use of the §401 certification process. NOAA and EPA will approve those program elements for which States have proposed the use of §401 certifications where States can demonstrate the following: (1) the certifications, either alone or in concert with other programs, are sufficient to address the full range of applicable activities and sources of nonpoint pollution and geographic areas for which they are proposed; (2) there is a back-up authority that can be used by the State to enforce conditions or revoke certification; and (3) the State has a monitoring system or other tracking methods by which to assess whether permit conditions have been met. Although Georgia has provided information addressing points (1) and (2) above, NOAA and EPA continue to have questions about whether Georgia's 401 certifications are sufficient to cover all required activities and whether the State has back-up authority that can be used by the State to enforce conditions or revoke certification. Please provide NOAA and EPA with examples of how the three part test has been met in prior circumstances.

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The authorities cited above, §401 certification, Coastal Marshlands Protection Act, and Erosion and Sedimentation Act, apply to new activities. Existing activities may be addressed through streambank restoration programs, Watershed Restoration Action Strategies, and similar initiatives. Information on how these activities can be used to implement the measures should be provided to NOAA and EPA.

B. DAMS

FINDING: Georgia's program includes management measures for dams in conformity with the 6217(g) guidance, except it does not include management measures to apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters or management measures for protection of surface water quality and instream and riparian habitat.

CONDITION: Within two years, Georgia will include in its program measures that are in conformity with the 6217 (g) guidance.

RATIONALE: According to EPD's Safe Dams Program database, there are 42 dams in the coastal zone that meet the CZARA definition of impoundments or dams. These dams are mostly for recreation, sometimes with secondary uses for fire control. Georgia meets the management measure for erosion and sedimentation control through the Erosion and Sedimentation Control Act which requires the implementation of BMPs in accordance with the Manual for Erosion and Sediment Control in Georgia. The BMPs in the manual are in conformity with the (g) management measures.

Currently Georgia does not have any programs which address application of nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters, or management measures for protection of surface water quality and instream riparian habitat. The Source Water Assessment and Protection Program requires an inventory of potential contamination sources within the drinking water supply area, but not in the downstream portions of rivers and streams.

C. STREAMBANK AND SHORELINE EROSION

FINDING: Georgia's program does not include management measures for streambank and shoreline erosion in conformity with the 6217(g) guidance.

CONDITION: Within two years, Georgia will include in its program measures that are in conformity with the 6217 (g) guidance. Within one year, Georgia will develop a strategy to implement the management measures throughout the 6217 management area.

RATIONALE: This management measure is intended to be applied by States to eroding shorelines in coastal bays, and to eroding streambanks in coastal rivers and creeks. Georgia has provided a list of enforceable policies including the Georgia Erosion and Sedimentation Act, Georgia Water Quality Control Act, Federal Rivers and Harbors Act, Georgia Stormwater Management Program, and the Nationwide 13 permit to address the management measures, but these laws apply primarily to construction activities, and not to naturally occurring streambank and shoreline erosion.

Several BMP manuals have been developed, including Guidelines for Streambank Restoration and Protecting Community Streams: A Guidebook for Local Governments in Georgia, but no information was provided on who the target audience is, or how the manuals are to be distributed. While these are good manuals which address many aspects of streambank restoration, they need to be part of a larger effort to identify and apply these management measures to streambank and shoreline erosion. No information was provided on management measures to protect streambank and shoreline features with the potential to reduce nonpoint source pollution. NOAA and EPA encourage Georgia to provide a description of management measures to be implemented in the §6217 management area, as well as the linkage between the management measures and the specific enforceable policies that apply.

VII. WETLANDS, RIPARIAN AREAS AND VEGETATED TREATMENT SYSTEMS

FINDING: Georgia’s program includes management measures for wetlands, riparian areas and vegetated treatment systems in conformity with the 6217(g) guidance and includes enforceable policies and mechanisms to ensure implementation of the management measures.

RATIONALE: Georgia code section 12-2-8 charges the Georgia Department of Natural Resources to develop minimum standards and procedures for the protection of river corridors, wetlands, public water supply watersheds, groundwater protection, and mountains (OCGA 12-2-8, section (b)). These minimum standards would be incorporated into the comprehensive land use plans developed and implemented by local governments under The Comprehensive Georgia Planning Act of 1989 (OCGA 50-8-1). This Act requires that local governments develop comprehensive land use plans in order to maintain their status as a “Qualified Local Government” (and thereby remain eligible for certain State funding sources).

According to the Criteria for River Corridor Protection (Rules for Environmental Planning Criteria, 391-3-16-.04) local governments must identify qualifying rivers within their jurisdiction and develop river corridor protection plans, which would consist of the establishment of riparian buffers along any qualifying river within the local government’s jurisdiction, that is, one whose average annual flow is at least 400 cubic feet per second. This buffer must be 100 feet wide on either side of the bank and limited land use is allowed within this buffer.

The Department of Community Affairs (DCA) requires all counties with wetlands to address wetland protection in their master plans. The DCA provides a model wetland protection ordinance whose adoption by local governments is not required. However, any county that does not address wetland protection in its regional plan will lose its qualified local government status, making it ineligible for certain types of infrastructure funding. The Coastal Marshlands Protection Act is proposed as the enforceable policy and mechanism.

VIII. ADMINISTRATIVE COORDINATION

FINDING: Georgia's program includes mechanisms for coordination among State agencies and between State and local officials.

RATIONALE: In 1998, Georgia established a Nonpoint Source Advisory Committee consisting of industry and agency representatives from each land use category which serves as the primary forum for coordinating existing NPS programs. Four subcommittees were formed for each land use category and charged with developing a plan of action assessing the effectiveness of program implementation and to develop a five-year plan of action to address shortcomings. In December 2000, the agricultural subcommittee began to document BMP implementation goals and provide records of BMP implementation for each existing pollution control program for the purpose of monitoring effectiveness. NOAA and EPA commend Georgia for its efforts in establishing the committee and encourage other agencies and subcommittees to pursue efforts similar to those of the agriculture sector.

IX. PUBLIC PARTICIPATION

FINDING: Georgia's program provides opportunities for public participation in the development and implementation of the coastal nonpoint program.

RATIONALE: Georgia has a variety of methods and programs to meet the (g) management measures for public education and participation. Georgia has solicited public involvement in the program by recruiting representatives of key agencies and members of industry that govern the NPS land categories to serve on the Nonpoint Source Advisory Committee. Additionally, Georgia has a number of new and ongoing public education programs and events that will serve as forums for the exchange of information about the NPS program. Public education will be coordinated with the University of Georgia Marine Extension Service in Brunswick, the U.S. Fish and Wildlife Service, and the Sapelo Island National Estuarine Research Reserve (NERR). The Sapelo Island NERR has agreed to provide logistical help with many of DNR's outreach activities and to work with the DNR's Coastal Resources Division on collaborative presentations.

The Marine Extension Service was awarded a Coastal Incentive Grant through the Coastal Resources Division to implement the Nonpoint Source Education for Municipal Officials (NEMO) program in the 6217 area.

X. TECHNICAL ASSISTANCE

FINDING: Georgia has included programs that will provide technical assistance to local governments and the public for the implementation of additional management measures.

RATIONALE: Georgia has a number technical assistance programs available to the public through local governments, nonprofit organizations, and State agencies responsible for implementing the State's coastal nonpoint pollution control program. The State's submittal provided listings of the key nonpoint source-related technical assistance programs, the targeted user groups, and the agencies responsible for implementation of the program.

XI. ADDITIONAL MANAGEMENT MEASURES

FINDING: Georgia's program provides for implementation and continuing revision of additional management measures applicable to critical coastal areas and cases where section 6217(g) measures are fully implemented but water quality threats or impairments persist.

RATIONALE: Georgia has developed a process for implementing additional management measures for those priority watersheds that continue to have water quality problems after the 6217 management measures have been implemented. In addition to relying on resources such as the 305(b) report and 303(d) listings, Georgia plans to seek recommendations from the NPS Advisory Committee to identify impaired waters and implement additional management measures where needed. The additional management measures will be integrated with projects targeting specific watersheds; for example the River Basin Management Plan which develops an action plan associated with each basin, and the Unified Watershed Assessment which ranks and then targets resources at priority watersheds through Watershed Restoration Activity Strategies (WRAS). Funding programs to implement additional management measures include the Clean Water Act Section 319 grant program, Coastal Incentive Grants, and, where possible local funding sources.

XII. CRITICAL COASTAL AREAS

FINDING: Georgia has developed a process for the identification and establishment of critical coastal areas.

RATIONALE: Georgia has identified critical coastal areas via designations by Georgia's Coastal

Management Program and through the Coastal Regional Development Plan. Georgia has designated both generic critical coastal areas that include such habitats as freshwater wetlands, rivers and adjacent wetlands, aquifer management and protection areas, and specific critical areas such as Ebenezer Creek which is a natural cypress gum swamp forest in the Savannah River Basin.

XIII. MONITORING

FINDING: Georgia's program does not include a plan to assess over time the success of the management measures in reducing pollution loads and improving water quality.

CONDITION: Within one year, Georgia will develop a plan that enables the State to assess over time the extent to which implementation of management measures is reducing pollution loads and improving water quality, particularly with regard to urban management measures.

RATIONALE: Georgia proposes a three-pronged approach: 1) demonstration projects of BMPs; 2) long-term water quality monitoring; and 3) a management measure tracking system. Agriculture, forestry, marinas and recreational boating, and wetlands all have in place or are developing monitoring and tracking systems. However, no information was provided to NOAA and EPA on a monitoring system for urban management measures or hydromodifications. Please provide NOAA and EPA with a plan for monitoring and tracking the effectiveness of implementation of management measures for these two categories.

XIV. ENFORCEABLE POLICIES AND MECHANISMS

Georgia must identify enforceable policies and mechanisms that provide for the “implementation, at a minimum, of management measures in conformity with the ...[§6217(g) measures] to protect coastal waters generally...” (CZARA §6217(b)) Enforceable policies and mechanisms may provide specific authority to implement selected measures, or serve as back-up authorities, providing general authority to prevent water pollution.

In October 1998, NOAA and EPA published the *Final Administrative Changes*, which outlines the criteria by which back-up authorities may be used as enforceable policies and mechanisms to provide for the implementation of voluntary or incentive-based programs. These criteria include:

1. A legal opinion from the attorney general or an attorney representing the agency with jurisdiction for enforcement that such authorities can be used to prevent nonpoint source pollution and require management measure implementation, as necessary;
2. a description of the voluntary or incentive-based programs, including the methods for tracking and evaluating those programs, the States will use to encourage implementation

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- of the management measures; and
3. a description of the mechanism or process that links the implementing agency with the enforcement agency and a commitment to use the existing enforcement authorities where necessary.

Georgia may wish to consider submitting a legal opinion in conjunction with the detailed information the State has provided on voluntary and incentive-based programs in order to address the enforceable policies and mechanisms component conditions. Please refer to NOAA and EPA's memorandum on Enforceable Policies and Mechanisms for State Coastal Nonpoint Programs (January 23, 2001) for additional information on these requirements and examples on how other States have met them.

Georgia's program also relies upon the use of CWA section 401 certifications to meet program requirements, particularly for hydromodification and wetlands and riparian areas. As discussed in the *Final Administrative Changes*, NOAA and EPA will approve the use of section 401 certifications to meet program requirements where States can demonstrate the following:

1. The certifications, either alone or in concert with other programs, are sufficient to address the full range of applicable activities and sources of nonpoint pollution and geographic areas for which they are proposed;
2. There is a back-up authority (e.g., water quality authority) that can be used, as described above, by the State to enforce conditions or revoke certification; and
3. The State has a monitoring system or other tracking methods by which to assess whether permit conditions have been met.