



ENVIRONMENTAL
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State Wetland Protection

Status, Trends, & Model Approaches

*A 50-state study by the
Environmental Law Institute*

*With support from the
U.S. Environmental Protection Agency*

2008

Appendix: State Profiles

Georgia

I. Overview

Georgia's total wetland acreage, approximately 7.7 million acres, covers an estimated 20 percent of the state's total land area. This includes more than 378,000 acres of coastal marshlands, comprising one-third of the remaining salt marsh along the U.S. Atlantic coast.¹ Today, these wetlands remain largely pristine due to the Georgia's approach for tidal wetlands protection. The state manages tidal wetlands both through statutory requirements and as property owner, because the large majority of Georgia's coastal marshlands are public land.² However, rapid development is imposing new pressures on the state's tidal and non-tidal wetland resources. Freshwater wetlands are regulated primarily through §401 water quality certification under the Clean Water Act (CWA).

II. Regulatory Programs

Wetland definitions and delineation

Georgia defines "Waters of the State" as:

any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wells, wetlands, and all other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the state which are not entirely confined and retained completely upon the property of a single individual, partnership, or corporation.³

Wetlands are defined in various state statutes. Under the Coastal Marshlands Protection Act, definitions for "coastal marshlands," "vegetated marshlands," and "estuarine areas" are given.⁴ The Georgia Planning Act uses the federal definition of "freshwater wetlands."⁵ In addition, the

¹ Georgia Dep't of Natural Resources and National Oceanic and Atmospheric Administration, *Coastal Management Program and Final Environmental Impact Statement*, (August 1997) (on file with Ga. Dep't of Natural Res., Coastal Resources Division).

² Some of Georgia's protected barrier islands are privately held, and Georgia's holdings (as well as Federal holdings) are primarily on the barrier islands, although other state properties exist in coastal counties as well. Personal communication with Chris Canalos, Georgia Dep't of Natural Res. (Dec. 6, 2004).

³ GA. COMP. R. & REGS. 391-3-6.03(3)(1).

⁴ "Coastal marshlands" include "[a]ny intertidal marshland area, mud flat, tidal water bottom, or salt marsh in the state of Georgia within the estuarine areas of the state." "Vegetated marshlands" are "areas upon which grow one, but not necessarily all, of the following: salt marsh grass (*Spartina alterniflora*), black needlerush (*Juncus roemerianus*), saltmeadow cordgrass (*Spartina patens*), big cordgrass (*Spartina cynosuroides*), saltgrass (*Distichlis spicata*), coast dropseed (*Sporobolus virginicus*), bigelow glasswort (*Salicornia bigelovii*), woody glasswort (*Salicornia virginica*), saltwort (*Batis maritima*), sea lavender (*Limonium nashii*), sea oxeye (*Borichia frutescens*), silverling (*Baccharis halimifolia*), false willow (*Baccharis angustifolia*), and high-tide bush (*Iva frutescens*)." "Estuarine areas" include "[a]ll tidally influenced waters, marshes, and marshlands lying within a tide elevation range from 5.6 feet above mean tide level and below." GA. CODE ANN. § 12-5-282.

⁵ "Freshwater wetlands" are defined using the federal definition ("...areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.") However, Georgia's definition of freshwater wetlands does not include any areas defined as "coastal marshlands" by the state Coastal Marshlands Protection Act. GA. COMP. R. & REGS. r. 391-3-16-.03(3)(a).

Georgia Planning Act provides definitions for “non-forested emergent wetlands,” “scrub/shrub wetlands,” “forested wetlands,” and “altered wetlands.”⁶

Georgia delineates wetlands consistently in accordance with the criteria outlined in the U.S. Army Corps of Engineers’ 1987 *Wetlands Delineation Manual*.⁷

Wetland-related laws and regulations

Georgia relies on §401 water quality certification to regulate wetlands statewide, but also has additional laws and regulations governing tidal wetlands protection and planning.

§401 certification. Section 401 water quality certification provides protection for both the state’s tidal and non-tidal wetlands. Administered by the Environmental Protection Division (EPD) of the Georgia Department of Natural Resources (GA DNR), an average of 70 to 80 certifications are issued annually in the state. All of the project applications received by EPD are approved for certification, although the division may apply conditions or work with permit applicants to modify projects to meet state requirements.⁸ Decision-making is based on a combination of best professional judgment and a quantitative review for consistency with the state’s water quality provisions, local ordinances, Erosion and Sedimentation Act,⁹ and other relevant statutes and provisions.¹⁰ Recently, the Coastal Nonpoint Source Management Program contracted with the University of Georgia to review the innovative use of water quality certification in other coastal states and to make recommendations on enhancing §401 as a tool to protect coastal resources.¹¹

Coastal wetlands protection. Enacted in 1970, Georgia’s Coastal Marshlands Protection Act¹² (CMPA) created a separate permitting program for tidal wetlands.¹³ Under the act, GA DNR’s

⁶ “Scrub/shrub wetlands” mean “non-forested areas dominated by woody shrubs, seedlings and saplings averaging less than 20 feet in height; these wetlands may intergrade with forested wetlands, non-forested emergent wetlands, and open water.” “Forested wetlands” include those “natural or planted forested areas having a dominant tree crown closure of hardwoods, pines, gums, cypress, or any combination of these types. These areas are usually in stream or river floodplains, isolated depressions, and drainways and contain standing or flowing water for a portion of the year...” “Non-forested emergent wetlands” include “freshwater marshes dominated by a variety of grasses, sedges, rushes, and broadleaved aquatic associated with streams, ponded areas, and tidally-influenced non-saline waters.” “Altered wetlands” include “areas with hydric soils that have been denuded of natural vegetation and put to other uses, such as pasture, row crops, etc., but that otherwise retain certain wetlands function and values.” GA. CODE ANN. § 50-8-1.

⁷ U.S. ARMY CORPS OF ENGINEERS, WETLANDS RESEARCH PROGRAM TECHNICAL REPORT Y-87-1, CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (1987), *available at* <http://el.erdc.usace.army.mil/elpubs/pdf/wlman87.pdf>.

⁸ Personal communication with Keith Parsons, Ga. Dep’t of Natural Res. (Nov. 4, 2004).

⁹ “The Georgia Erosion and Sedimentation Act requires that each county or municipality adopt a comprehensive ordinance establishing procedures governing land-disturbing activities based on the minimum requirements established by the Act. The Erosion and Sedimentation Act is administered by EPD and by local governments. Permits are required for specified “land-disturbing activities,” including the construction or modification of manufacturing facilities, construction activities, certain activities associated with transportation facilities, activities on marsh hammocks, and other activities. With certain constraints, permitting authority can be delegated to local governments.” Ga. Dep’t of Natural Res., Coastal Resources Division, *State Laws Under Federal Consistency - Erosion and Sedimentation Control*, at <http://crd.dnr.state.ga.us/content/displaycontent.asp?txtDocument=100&txtPage=10> (last visited Sept. 12, 2007).

¹⁰ Parsons, *supra* note 8.

¹¹ Email from Jeannie Butler, Ga. Dep’t of Natural Res. (July 19, 2007).

¹² GA. CODE ANN. § 12-5-280.

Coastal Resources Division (CRD) regulates all dredging, draining, or other alterations to marshlands. These types of activities are prohibited without first obtaining a “Marsh Permit.” In addition, the construction or location of any structure on or over marshlands of the state without a permit is also prohibited.¹⁴ Activities that are water-related and/or dependent on waterfront access must avoid and minimize impacts to the extent practicable.¹⁵ If a non-marshland alternative site is available, or the project can be satisfied by the use of public facilities, a permit is not usually granted. Provisions for compensatory mitigation are not included in the statute; however, coastal permits rarely involve the filling of wetlands.¹⁶ Under 50 permits are issued annually by the CRD, and they mostly relate to the building of docks or other minor construction activities. Permit applications are usually approved, but often with modifications.¹⁷

In cases where the proposed activity involves construction on state-owned tidal wetlands,¹⁸ a “Revocable License” is normally issued by the CRD. A Revocable License grants permission to use publicly-owned lands lying below the ordinary high water mark. The license is required for any activities that would impact tidally influenced waters, salt marshes, intertidal areas, mud flats or tidal waterbottoms in the state’s coastal counties.¹⁹ This includes bank stabilization projects, projects that require a CMPA permit, projects that are specifically exempt from the CMPA, and most activities authorized under the U.S. Army Corps of Engineers’ Nationwide Permits.²⁰

On March 26, 2007, Georgia established rules to guide permitting under the Coastal Marshlands Protection Act.²¹ The regulations impose marshlands buffer, stormwater management, and impervious cover standards for the upland component of a tidal wetlands project. The new regulations also require the Coastal Marshlands Protection Committee to develop an application checklist list for permit applicants.

¹³ The jurisdiction of the Coastal Marshlands Protection Act extends to “coastal marshlands” or “marshlands,” which includes marshland, intertidal area, mudflats, tidal water bottoms, and salt marsh area within estuarine area of the state, whether or not the tidewaters reach the littoral areas through natural or artificial watercourses. GA. CODE ANN. § 12-5-282.

¹⁴ GA. CODE ANN. § 12-5-280.

¹⁵ Exempt activities include routine Georgia Department of Transportation activities, maintenance of navigation of rivers and harbors, railroad activities of public utilities companies, activities of companies regulated by the Public Service Commission, activities incident to water and sewer pipelines, and construction of private docks that do not obstruct tidal flow and meet certain other standards described in the CMPA.

¹⁶ In 1992, the CMPA was amended to identify activities normally considered “contrary” to the public interest, including (but not limited to) the filling of tidal wetlands for residential, commercial, and industrial uses, waste or dredge disposal, private roadways, and private parking areas. GA. CODE ANN. § 12-5-288.

¹⁷ Personal communication with Jeannie Butler, Ga. Dep’t of Natural Res. (Nov. 17, 2004).

¹⁸ Most of the state’s 378,000 acres of tidal wetlands belong to the state. Rare exceptions include a crown grant or state grant (i.e. the party has been deeded land either by the King of England or the state). Granted coastal marshlands generally remain in the jurisdiction of the state in order to serve the public interest. Personal communication with Jeannie Butler, Ga. Dep’t of Natural Res. (Jun. 8, 2004).

¹⁹ Federal Consistency provisions are applicable in eleven coastal counties: Effingham, Chatham, Wayne, Bryan, Liberty, Long, McIntosh, Wayne, Glynn, Brantley, Camden, and Charlton.

²⁰ Georgia Department of Natural Resources- Coastal Resources Division, *When a Revocable License Is Needed*, at <http://crd.dnr.state.ga.us/content/displaycontent.asp?txtDocument=368> (last visited Sept. 12, 2007).

²¹ Georgia Department of Natural Resources - Coastal Resources Division, *Draft Proposed Coastal Marshlands Protection Act & Shore Protection Act Regulations*, available at http://crd.dnr.state.ga.us/assets/documents/Marsh_and_Shore_Rules_04_27_04.pdf.

Activities in the state's coastal counties also require a determination of federal consistency.²² In other words, direct federal activities, federal permits and licenses, and federally-assisted projects may not proceed without a determination or certification that the activity complies with the policies of the Georgia Coastal Management Program. Only activities requiring a federal permit necessitate certification of consistency.²³

*Comprehensive Planning Act.*²⁴ The Comprehensive Planning Act, which focuses on land use planning at the local level, recognizes the importance of wetlands. At the state level, GA DNR is required to develop minimum standards and procedures for the protection of numerous natural resources, including wetlands.²⁵ The act also directs the Georgia Department of Community Affairs to incorporate these planning criteria into local government minimum standards and procedures.²⁶ At a minimum, the state must define, identify, and map open water, non-forested emergent wetlands, scrub/shrub wetlands, forested wetlands, and altered wetlands (as defined in “*Wetlands definition and delineation*” section above). Local land use plans must then address several considerations with regards to the wetland classes identified in the database.²⁷ The act applies only to freshwater wetlands for the state, as defined under the Clean Water Act. Coastal marshlands defined under the CMPA are not included.²⁸

Organization of state agencies

The state's wetland regulation and protection programs involve various divisions within the GA DNR. The agency's Environmental Protection Division (EPD) oversees most air, water, and land regulation, including §401 water quality certification for wetlands. However, GA DNR's Coastal Resources Division (CRD) oversees regulation of the CMPA. The Wildlife Resources Division (WRD) also conducts non-regulatory wetland-related activities.

Environmental Protection Division. While technically part of the GA DNR, EPD operates largely as its own agency. The EPD director and GA DNR commissioner both report to the Georgia's Board of Natural Resources and have equal positions.²⁹ EPD oversees §401 water quality certification and water quality regulation, including monitoring, assessment, enforcement, and compliance. EPD also conducts various forms of education and outreach.

In addition to the agency headquarters located in Atlanta, EPD has five regional offices that conduct numerous activities, wetland- and non-wetland-related. Because staff activities are spread among many areas of environmental protection, it is difficult to calculate the amount of staff time devoted specifically to wetlands regulation and protection within EPD. However, the division does employ one full-time staff person specifically for §401 program coordination, and

²² Georgia Department of Natural Resources -Coastal Resources Division, *A Consistency Certification or Determination is Needed When...*, at <http://crd.dnr.state.ga.us/content/displaycontent.asp?txtDocument=101> (last visited Sept. 12, 2007).

²³ GA. CODE ANN. § 12-5-322.

²⁴ *Id.* § 12-2-8 (b).

²⁵ These criteria are found at GA. CODE ANN. § 50-8.7.1(b)(2).

²⁶ *Id.* § 12-2-8 (b).

²⁷ GA. COMP. R. & REGS. 391-3-16-.03(3)(c).

²⁸ “Freshwater wetlands” are defined using the federal definition, but do not include any areas defined as “coastal marshlands” by the CMPA. GA. COMP. R. & REGS. 391-3-16-.03(3)(a).

²⁹ Parsons, *supra* note 8.

has received §319 funding to hire a dedicated coastal water quality certification position.³⁰ It also is difficult to estimate the amount of funding devoted to wetland-related programs in the state due to the dispersed nature of EPD staff activities. Funding for the EPD's wetland-related activities generally comes from federal grants, e.g., §319, §104, and §106 funds from the U.S. Environmental Protection Agency (EPA). State appropriations are usually used to match federal grants.³¹

Coastal Resources Division. CRD oversees all regulatory activities pertaining to the CMPA; however, an appointed Marsh/Shore Protection Committee³² ultimately makes all permitting decisions. Division staff members assemble and evaluate information required to make a permit decision, but the burden of proof that no viable alternatives exist and that impacts will be minimized is placed on the permit applicant.³³ The CMPA describes permit public interest decision-making guidelines for the committee that relate to navigation, erosion, marine life and wildlife, and water quality.³⁴

CRD's Marsh and Shore Regulatory Program (MSRP) is based in Brunswick, with a satellite office located in the Savannah area. Approximately four full-time equivalents (FTEs) conduct marsh and beach permitting and assist in compliance matters.³⁵ Coastal Management Program staff members also provide technical assistance to local government planners and resource managers.³⁶ CRD is also undertaking an update of the National Wetlands Inventory maps for six counties beginning in 2007 with funding from an EPA Wetlands Program Development Grant.³⁷ The Coastal Management Program also is contracting with The Nature Conservancy of Georgia to conduct wetland restoration projects. Other CRD activities include §401/404 permit review through the federal consistency process and education and outreach.

MSRP's budget, on the order of \$250,000 annually, is funded almost entirely through the Coastal Zone Management Act (administered by NOAA).³⁸ An additional four FTEs based in an associated CRD program issue the U.S. Army Corps of Engineers' programmatic general permit for private docks coupled with Revocable Licenses, delineate the state's marsh and beach jurisdiction, and enforce the Coastal Marshlands and Shore Protection Acts. A CRD staff attorney also reviews all applications for Revocable Licenses and permits. Coastal zone funding also supports CRD's staff attorney and a part of the private dock permitting staff. The state provides 1:1 match on the entire federal coastal zone award.

³⁰ Email from Jeannie Butler, Ga. Dep't of Natural Res. (July 19, 2007).

³¹ Parsons, *supra* note 8.

³² The Coastal Marshlands and Shore Protection Committee is a five person panel authorized by the CMPA and Shore Protection Act to grant or deny permits to conduct activities on Georgia's coastal wetlands and beaches. The chairman of the committee is the GA DNR Commissioner. The other four members of the committee are appointed by the GA DNR's Board of Natural Resources. Three members of the committee are required to reside on Georgia's coast and all members are unpaid (with the exception of reimbursement for travel expenses). Committee membership has been long-term, such that institutional knowledge is maintained.

³³ Butler, *supra* note 17.

³⁴ GA. CODE ANN. § 12-5-288 & 12-5-280 & 12-5-286(g)(1), (2), and (3).

³⁵ Butler, *supra* note 17.

³⁶ Personal communication with Jeannie Butler, Ga. Dep't of Natural Res. (Dec. 15, 2004).

³⁷ Email from Jeannie Butler, Ga. Dep't of Natural Res. (July 19, 2007).

³⁸ Butler, *supra* note 17.

Wildlife Resources Division. GA DNR's Wildlife Resources Division (WRD) regulates hunting and freshwater fishing, protects nongame wildlife, manages lands as wildlife management areas and natural Areas, and maintains public education and law enforcement programs for the state's natural resources. WRD frequently reviews and recommends conditions to state coastal marshlands permits as well as federal §404 permit applications, in order to protect coastal, wetland, and marine dependent species. Other types of development proposals likely to affect rare species or natural communities are also reviewed.³⁹

Although WRD does not necessarily focus on wetlands specifically, it conducts various activities and programs that do involve wetland restoration, conservation, acquisition, and education, and outreach. Wetland habitats are an integral part of the state's recently completed *Comprehensive Wildlife Conservation Strategy*. Wetlands are frequently a target of land acquisition or protection efforts, including those which may be aided by Coastal Wetland Grants. Additionally, the Coastal Nongame Wildlife Conservation Office is undertaking a wide-ranging flora, fauna, and community type assessment and mapping for the coastal counties. This Natural Heritage Inventory will focus on and feature wetland resources as critical habitats and is expected to be a fundamental element in comprehensive land use planning by coastal local governments.⁴⁰ WRD staff members also actively manage freshwater wetland impoundment areas for migratory game and nongame species.

The division operates out of the state headquarters, as well as seven regional offices. With a budget of approximately \$37 million annually, WRD is funded by a combination of state appropriations,⁴¹ federal grants, and collections from the sale of specialty license plates. The agency employs 675 employees.⁴² Because wetlands are not typically the primary focus of WRD activities, it is difficult to estimate the number of FTEs or funding devoted to wetland-related activities.

Nationwide permits

EPD conducts ongoing review of the U.S. Army Corps of Engineers' nationwide permits (NWP). First, the division reviews the regional conditioning of NWPs. For the set of NWPs released in 2002, general conditions included: the requirement of a Pre-Construction Notification for several NWPs; compensatory mitigation specifications; prohibition of NWPs for non-linear projects resulting in bank to bank filling, relocating, and/or culverting of more than 300 feet of stream; and the requirement that all projects must comply with Georgia's Erosion and Sediment Control Act of 1975. In addition to these general conditions, multiple NWPs received specific conditions as well.⁴³ No NWPs were denied.⁴⁴ EPD also conducts a weekly review of applied NWPs. EPD may deny or request the elevation of an NWP, but this rarely occurs.⁴⁵

³⁹ Email from Brad Winn, Coastal Nongame Wildlife Conservation Program (July 19, 2007).

⁴⁰ *Id.*

⁴¹ State hunting and fishing license fees are deposited into the state's general fund. The Georgia state legislature then appropriates general state funds to the WRD.

⁴² Personal communication with Ted Hendrickx, Ga. Dep't of Natural Res. (Nov. 24, 2004).

⁴³ The following NWPs have received additional conditions: NWP#3 - Maintenance; NWP#4 - Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities; NWP#7 - Outfall Structures and Maintenance; NWP#10 - Mooring Buoys; NWP#11 - Temporary Recreational Structures; NWP#12 - Utility Activities; NWP#14 - Linear Transportation Projects; NWP#18 - Minor Discharges; NWP#19 - Minor Dredging; NWP#23 - Approved Categorical Exclusions; NWP#33 - Temporary Construction, Access, and Dewatering; NWP#35 - Maintenance

Georgia's action on the 2007 NWP's could not be reviewed within the reporting period.

Mitigation

Georgia's state laws and regulations do not include wetland or stream mitigation requirements; instead, the state relies on federal requirements for impacts to wetlands and streams. GA DNR is party to the region's Mitigation Banking Review Team (MBRT) and has developed *Guidelines on the Establishment and Operation of Wetland Mitigation Banks in Georgia* in conjunction with the Corps' Savannah District, EPA – Region IV, and U.S. Fish and Wildlife Service – Southeast Region. The guidelines are targeted towards state and federal resource agencies and bank sponsors and seek to provide assistance in developing and establishing mitigation banks while meeting the goals of the Clean Water Act.⁴⁶

GA DNR has also worked with the Georgia Department of Transportation (GA DOT) to identify priority sites for wildlife conservation that may also serve wetland and/or stream mitigation needs. The recently completed *Comprehensive Wildlife Conservation Strategy* includes a priority to increase coordination with GA DOT both to minimize impacts and to facilitate mitigation.⁴⁷ As a result, the two agencies have developed a memorandum of understanding establishing a coordination team that meets quarterly to discuss mitigation issues, including mitigation banking.⁴⁸

An in-lieu-fee program has also been established in Georgia, but does not involve state-level participation.⁴⁹

Dredging of Existing Basins; NWP#36 - Boat Ramps; NWP#37 - Emergency Watershed Protection and Rehabilitation; NWP#41 - Reshaping Existing Drainage Ditches; NWP#42 - Recreational Facilities; NWP#43 - Stormwater Management Facilities; and NWA#44 - Mining Activities. U.S. Army Corps of Engineers, *Savannah District Nationwide Permits Regional Conditions*, available at <http://www.sas.usace.army.mil/2002rcnwp4.html> (last visited Sept. 10, 2007).

⁴⁴ *Id.*

⁴⁵ Parsons, *supra* note 8.

⁴⁶ See U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT, GUIDELINES FOR THE ESTABLISHMENT AND OPERATION OF WETLANDS MITIGATION BANKS IN GEORGIA, available at <http://www.sas.usace.army.mil/bankguid.htm> (last visited Sept. 12, 2007); See also U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT, ADDENDUM 1 TO THE GUIDELINES (Jan. 16, 1996), available at <http://www.sas.usace.army.mil/ADDEND1.doc> (last visited Sept. 12, 2007).

⁴⁷ GA. DEP'T OF NATURAL RES. – WILDLIFE RESOURCES DIVISION, A COMPREHENSIVE WILDLIFE CONSERVATION STRATEGY FOR GEORGIA (2005), available at <http://www.gadnr.org/cwcs/Documents/strategy.html>.

⁴⁸ Personal communication with Jon Ambrose, Georgia Department of Natural Resources (Apr. 27, 2007).

⁴⁹ The U.S. Army Corps of Engineers Savannah District and the Georgia Land Trust Service Center (GLTSC) have entered into a partnership agreement to provide an in-lieu-fee mitigation option for applicants of the Clean Water Act §404 permitting process. The Georgia Wetlands Trust Fund will be funded by payments from permit applicants for the costs associated with purchasing, managing, and preserving wetlands required for mitigation under the §404 permit application process. The GLTSC serves as a clearinghouse for land trusts and government agencies who can then utilize the wetland trust funds to acquire wetlands for preservation, restoration and management. U.S. Army Corps of Engineers, Agreement Between the Georgia Land Trust Service Center and the U.S. Army Corps of Engineers, Savannah District, available at <http://www.sas.usace.army.mil/Indtrust.htm> (last visited Sept. 12, 2007).

Compliance and enforcement

Enforcement mechanisms under the state's water quality laws apply to wetlands statewide. Violations to state water quality provisions may result in civil penalties of up to \$50,000 per day of the violation. Penalties may be doubled for violations from the same party within a one-year period.⁵⁰ Violations are typically investigated initially by regional EPD staff, but may proceed to higher levels of investigation depending on the level of compliance.⁵¹

Under the CMPA, CRD maintains a compliance and enforcement program for the state's tidal wetlands as well. Monthly or bimonthly over-flights of the Georgia coastline are conducted to find potential violations. Jurisdiction is given to the superior court of the county in which the violation occurs. The CMPA outlines enforcement mechanisms that may be used singularly or in combination. These include cease and desist orders, civil penalties of up to \$10,000 per day of the violation, injunctions, and restoration.⁵² The CRD enforcement program is active, with approximately 25 to 30 ongoing actions at any given time. These cases typically involve individuals who are out of compliance with their permit or have not rightfully obtained a permit for the activities they are conducting. Typically, parties will be fined and ordered to restore the site. In some cases, supplemental environmental projects will be required as well.⁵³

Tracking systems

Both EPD and CRD maintain basic tracking systems for §401/§404, revocable licenses, and CMPA permits, respectively. The databases include basic data such as location, wetland type, and acreage. Mitigation is not included.⁵⁴

III. Water Quality Standards

Georgia does not have water quality standards (WQS) specific to wetlands. Surface water quality criteria are narrative, chemical, and biological.⁵⁵ The regulations do not identify designated uses for wetlands, defaulting to open water uses: drinking water; recreation; fishing, propagation of fish, shellfish, game, and other aquatic life; wild river; scenic river; and coastal fishing.⁵⁶ The state antidegradation policy also is not specific to wetlands.⁵⁷ A higher level of protection is given to waters designated as "outstanding resource waters."⁵⁸ It should also be noted that, in the absence of wetland-specific WQS, decisions pertaining to National Pollutant Discharge Elimination System permits and §401 certifications rely on surface water criteria and standards.

⁵⁰ GA. CODE ANN. § 12-5-52(a).

⁵¹ Parsons, *supra* note 8.

⁵² GA. CODE ANN. § 12-5-291.

⁵³ Personal communication with Jeannie Butler, Ga. Dep't of Natural Resources (June 8, 2004).

⁵⁴ Parsons, *supra* note 8; Butler, *supra* note 17.

⁵⁵ GA. COMP. R. & REGS. 391-3-6.

⁵⁶ GA. COMP. R. & REGS. 391-3-6-.03(4).

⁵⁷ GA. COMP. R. & REGS. 391-3-6.03(2)(b).

⁵⁸ GA. COMP. R. & REGS. 391-3-6.03(2)(c).

IV. Monitoring and Assessment

While there is no monitoring and assessment program in place for wetlands, EPD's Watershed Planning and Monitoring Program does operate an Ambient Monitoring Unit for streams. The unit conducts monitoring and assessment for wadable streams throughout the state's habitats using the Georgia Bioassessment Protocol. Data is used to support fishery assessments, which are used in compiling §303(d) lists and §305(b) reports. Program staff members are currently in the process of developing biocriteria for regulatory purposes as well. Finally, the program also supports EPD's Permitting, Compliance, and Enforcement Program as the need arises. The monitoring program is funded entirely by CWA §106 funds.⁵⁹

EPD also coordinates Georgia's Adopt-A-Stream and Adopt-a-Wetland (coastal version) Program. The programs are aimed at increasing awareness and providing education about water quality for citizens of the state. In addition, volunteers are provided with training and tools for collecting water quality data.⁶⁰

V. Restoration and Partnerships

Although Georgia has not created a formal wetland restoration plan or program, the Wildlife Resources Division conducts some restoration-related activities for wetlands, with a focus on habitat preservation, creation, and rehabilitation.⁶¹

The Bobwhite Quail Initiative is a voluntary and experimental program to restore habitat for bobwhite quail, songbirds, and other farm wildlife, improve water quality, and reduce soil erosion. Initiated in central Georgia, the program provides landowners with monetary incentives for restoring quail habitat and includes research and monitoring components. Collaborating organizations include the University of Georgia, Georgia Soil and Water Conservation Commission, Georgia Forestry Commission, USDA Natural Resources Conservation Service and Farm Service Agency, and Quail Unlimited.⁶²

WRD also provides guidance on other available landowner stewardship programs.⁶³ For example, GA DNR is working with private landowners, particularly private forest landowners through the sustainable forestry certification process, to encourage voluntary protection of high priority habitat, including wetlands. Where possible, financial incentives are provided through State Wildlife Grants, Partners for Fish and Wildlife, Farm Bill programs.⁶⁴

⁵⁹ Personal communication with Kristen Sanford, Ga. Dep't of Natural Res. (Nov. 12, 2004).

⁶⁰ See Georgia Department of Natural Resources- Environmental Protection Division, *Georgia Adopt-A-Stream*, at <http://www.georgiaadoptastream.org/> (last visited Sept. 12, 2007).

⁶¹ Hendrickx, *supra* note 42.

⁶² Georgia Department of Natural Resources- Wildlife Resources Division, *About the Bobwhite Quail Initiative*, at <http://georgiawildlife.dnr.state.ga.us/content/displaycontent.asp?txtDocument=108> (last visited Sept. 12, 2007).

⁶³ Georgia Department of Natural Resources -Wildlife Resources Division, *A Landowner's Guide – Conservation Easements for Natural Resource Protection*, at <http://georgiawildlife.dnr.state.ga.us/content/displaycontent.asp?txtDocument=192> (last last visited Sept. 12, 2007).

⁶⁴ Ambrose, *supra* note 48.

Finally, WRD, EPD, and University of Georgia are working together to map high priority wetland habitats in the state for restoration, acquisition, and mitigation purposes. The effort began as separate initiatives under WRD and EPD.⁶⁵ WRD's recently completed *Comprehensive Wildlife Conservation Strategy* includes several actions related to the assessment and protection of wetland resources.⁶⁶ EPD, funded by EPA, is assessing needs for the state to assume the §404 program in addition to identifying priority sites for restoration, mitigation, and protection. Today, mapping efforts are integrated. State staff expect mapping to be complete in 2008.⁶⁷

VI. Education and Outreach

EPD sponsors EEinGEORGIA.org, a collaboration of environmental educators throughout the state, agencies such as the Department of Community Affairs and Department of Education, and educational organizations such as Environmental Education Alliance of Georgia, Georgia Learning Connections, and the Georgia Parent Teacher Association. Initial funding for the program came from EPA. EEinGEORGIA.org provides lesson plans, a directory of environmental education providers and resources for the state, news, and other information. The organization also provides training on various environmental education topics, including Project WET (Water Education for Teachers).⁶⁸

WRD also conducts Project WILD, Project WET, and Outdoor and Wildlife Leadership Schools (OWLS). Although not specifically wetlands-focused, these programs offer interdisciplinary environmental training for educators, including lessons on aquatic habitat and wildlife, conservation, and land use impacts.⁶⁹

VII. Coordination with State and Federal Agencies

Coordination on wetlands regulation and protection occurs within the GA DNR, as well as among state and local or federal agencies. The state's MBRT meets four times a year,⁷⁰ while EPD, Corps, and EPA staff coordinate regularly on the §401/404 regulatory process.⁷¹ Finally, WRD often works with GA DOT, as well as the USDA Natural Resources Conservation Service and Farm Service Agency, on restoration/mitigation initiatives.⁷²

⁶⁵ Ambrose, *supra* note 48.

⁶⁶ GA. DEP'T OF NATURAL RES. – WILDLIFE RESOURCES DIVISION, A COMPREHENSIVE WILDLIFE CONSERVATION STRATEGY FOR GEORGIA (2005), available at <http://www.gadnr.org/cwcs/Documents/strategy.html>.

⁶⁷ Ambrose, *supra* note 48; Personal communication with Alice Keyes, Ga. Dep't of Natural Res. (Apr. 27, 2007).

⁶⁸ Georgia Adopt-A-Stream, *Environmental Education in Georgia*, at <http://eeingeorgia.org/net/go/default.aspx?siteid=4863> (last visited Sept. 12, 2007).

⁶⁹ Georgia Department of Natural Resources- Wildlife Resources Division, *General Info: General/Educators Menu*, at <http://georgiawildlife.dnr.state.ga.us/content/displaynavigation.asp?TopCategory=1> (last visited Sept. 12, 2007).

⁷⁰ Butler, *supra* note 17.

⁷¹ Parsons, *supra* note 8.

⁷² Hendrickx, *supra* note 42.

GA DOT has begun increasing efforts to integrate environmental considerations into transportation planning in recent years. Working in partnership with the Federal Highway Administration and other state and federal agencies, land trust organizations, and private landowners, GA DOT is identifying and protecting high-quality stream areas and wetland sites in its mitigation and restoration efforts.⁷³

VIII. Acronyms and Abbreviations

AAS – Adopt-A-Stream
CMPA – Coastal Marshlands Protection Act
CRD – Coastal Resources Division
CWA – Clean Water Act
EPA – U.S. Environmental Protection Agency
EPD – Environmental Protection Division
FTE – Full-time Equivalent
GA DNR – Georgia Department of Natural Resources
GA DOT – Georgia Department of Transportation
GLTSC – Georgia Land Trust Service Center
MBRT – Mitigation Banking Review Team
MSRP – Marsh and Shore Regulatory Program
NOAA – National Oceanographic and Atmospheric Administration
NWP – Nationwide Permit
OWLS – Outdoor and Wildlife Leadership Schools
USDA – U.S. Department of Agriculture
WET – Water Education Training
WQS – Water Quality Standards
WRD – Wildlife Resources Division

⁷³ Federal Highway Administration, *Georgia Department of Transportation - Building Partnerships to Balance Transportation Planning with Ecosystem Integrity*, at <http://www.fhwa.dot.gov/environment/ecosystems/ga.htm> (last visited Sept. 12, 2007).