

**Georgia EPD  
Wetland Program Plan  
2011 – 2016**

This document sets forth an initial Wetland Program Plan to guide the work of the Georgia Environmental Protection Division (“EPD”) during the next 5-year time period.<sup>1</sup>

This Plan is focused solely on the State’s freshwater wetlands, which do not include any areas defined as “coastal marshlands” by the Coastal Marshlands Protection Act. This initial plan will be subject to continued review and revision as necessary. EPD has authority to regulate waters of the State, defined to explicitly include wetlands, and to develop water quality standards for such waters in order to protect their physical, chemical and biological integrity. EPD also has the authority to regulate the discharge of pollutants into waters of the State. EPD issues Clean Water Act (“CWA”) Section 401 water quality certifications as a means of protecting the State’s wetlands and to ensure the consistency of CWA Section 404-permitted activities with the State’s water quality standards.

The Wetland Program Plan is designed to support the following set of goals and objectives:

- Achieving results consistent with the national “no net loss” of wetlands goal
- Focusing wetlands protection efforts on the prevention, minimization, and/or mitigation of harm to wetland condition or function;
- Promoting enhanced communication and coordination with other agencies and non-governmental partners focused on wetland restoration and protection goals;
- Integrating wetland protection efforts with watershed/regional planning efforts; and
- Addressing the State Wildlife Action Plan’s recommendation that Georgia draft a comprehensive wetland protection strategy.

To date, EPD has taken several important steps towards the development of a robust and sustainable wetlands program. In 2005, EPD sought and received funding to support the development of a GIS tool to help identify priority areas for wetland mitigation sites, and to produce a Menu of Options document to help guide EPD’s wetland program. Initial wetlands assessment efforts were funded during the 2008 and 2010 Wetland Program Development Grant (“WPDG”) cycles, and will enable the monitoring and assessment of wetland conditions in four of Georgia’s six ecoregions, as well as support the development of appropriate wetlands assessment protocols for the State. The 2010 WPDG grant will also enable EPD to initiate work

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<sup>1</sup> The development of this Wetland Program Plan is a critical step towards meeting the DNR State Wildlife Action Plan (“SWAP”) recommendation that Georgia draft a comprehensive wetland protection strategy. The SWAP places a strong emphasis on the importance of freshwater wetlands conservation.

on the development of wetland-specific water quality standards, to develop a guidebook and provide training for local governments to use in their wetland protection efforts, and to continue to build the capacity for Georgia's CWA Section 401 water quality certification program.

In order to coordinate the work conducted by EPD's Watershed Protection Branch staff, and to facilitate the development and continued funding of Wetland Program Plan efforts in Georgia, EPD established a Wetlands Management Unit in April 2011. EPD currently conducts its wetlands protection efforts under existing staffing levels and budget constraints; however, the full implementation of this Plan is dependent upon obtaining additional funding, hiring additional staff, and implementing any regulatory or administrative changes deemed necessary under the specified actions or activities identified below. Attachment 1 provides an organizational chart of the current and future staff needs contemplated by Wetland Program Plan, which includes staff from other units and programs within the EPD's Watershed Protection Branch.

Acknowledging that regulation alone is not enough to ensure wetlands protection, EPD has developed this plan to identify program-building goals and activities focused on the four core elements of an effective wetlands program: (1) Monitoring and Assessment; (2) Regulatory Activities; (3) Voluntary Restoration and Protection; and (4) Water Quality Standards for Wetlands.<sup>2</sup>

This Plan is organized into four sections addressing each of these four core elements. Each of these core elements is tied to or builds upon one or more of the other core elements.

## **1.0 Monitoring and Assessment**

While EPD has established stream and lake water quality monitoring programs, EPD does not currently have a defined wetlands monitoring program. As noted above, EPD has sought and obtained WPDG funding to focus initial wetland monitoring and assessment efforts in four of Georgia's six ecoregions. This work will enable the development of partnerships with other Region IV states, and support the development of appropriate wetlands assessment protocols. EPD is also conducting monitoring and assessment work in support of National Wetlands Condition Assessment ("NWCA") efforts in Region IV. In order to enable to full implementation of a statewide wetlands monitoring program, EPD will need to hire two additional full-time monitoring staff.

EPD is in the earliest stages of its wetlands monitoring and assessment efforts, but has convened a Wetland Monitoring Protocol Advisory Panel to provide guidance and oversight in the development of a sustainable wetlands monitoring and assessment strategy. The Advisory Panel consists of members of federal and state partner agencies and academic institutions. Under the Wetland Program Plan, EPD will continue its work to build a wetlands monitoring and assessment program through the implementation of the following actions:

### Action 1.1: Develop wetlands monitoring and assessment strategy [2011-2012]

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<sup>2</sup> *Core Elements of an Effective State and Tribal Wetlands Program*, U.S. Environmental Protection Agency (2009).

Activities:

- Identify monitoring objectives/goals and define data needs;
- Identify existing data that could be utilized under wetlands monitoring objectives;
- Identify opportunities for integration with existing stream and lake water quality monitoring programs;
- Coordinate with Wetland Monitoring Protocol Advisory Panel for assistance and/or input in development of monitoring and assessment strategy;
- Identify a site selection approach designed to meet monitoring objectives;
- Identify a core set of indicators that represent wetland condition/function;
- Identify and/or develop field methods to be incorporated in wetlands monitoring design;
- Evaluate and incorporate appropriate wetland assessment metrics and protocols;
- Coordinate with Wetland Monitoring Protocol Advisory Panel for assistance and/or input in development of wetlands monitoring design;
- Document wetlands monitoring and assessment strategy.

Action 1.2: Conduct wetlands monitoring consistent with defined monitoring and assessment strategy [2012-2016]

Activities:

- Provide monitoring and assessment training to Watershed Planning and Monitoring Program (“WPMP”) and Non-Point Source Program (“NPSP”) staff;
- Purchase all necessary equipment required to conduct wetlands monitoring and assessment work;
- Hire two additional full-time staff to support wetlands monitoring and assessment efforts;
- Coordinate and mobilize WPMP and NPSP personnel to conduct monitoring and Assessment
- Identify and refine appropriate field methods, protocols, wetland assessment

indicators, and metrics based on collected wetlands monitoring data;

- Establish appropriate reference condition(s) based on results of monitoring and assessment activities.

Action 1.3: Utilize and incorporate partnerships and regional approaches into wetlands monitoring efforts

Activities:

- Participate in EPA's National Wetlands Condition Assessment program [2011-2013];
- Conduct ecoregion-level wetland monitoring and assessment work, and to the extent possible, schedule such work in conjunction with other Region 4 states. [2011-2014];
- Establish inter-agency partnerships to support monitoring and assessment work [ongoing].

Action 1.4: Integrate wetlands mapping and trend analysis efforts into monitoring and assessment work [ongoing]

Activities:

- Create an updated GIS dataset of wetland coverages in the State;
- Establish GIS coverage of wetland monitoring sites;
- Apply monitoring data to calibrate/analyze wetland coverages;
- Establish a data set of various wetland conditions throughout the State of Georgia;
- Utilize wetlands mapping information to select and evaluate potential monitoring sites;
- Develop a web-based application where the wetland data can be accessed interactively.

Action 1.5: Provide information and support critical to other EPD Watershed Protection Branch efforts

Activities:

- Coordinate with NPSP staff to evaluate opportunities to leverage volunteer monitoring program(s) to support of wetlands monitoring and assessment strategy [2013-2014];
- Provide monitoring data necessary to validate assertions about wetland health and function derived from broad-scope (Level 1) GIS-based assessment methodologies [2011-2013];
- Evaluate the use of assessment methods (e.g., Level 1 or Level 2) to support 401 certification decisions and monitoring for 401/compensatory mitigation compliance [ongoing];
- Provide quantitative data to the Data Assessment & Management Unit (“DAMU”) to support the evaluation of water quality criteria for wetlands [2013-2016].

## 2.0 Regulatory Activities

EPD relies on CWA Section 401 to regulate the State’s wetlands, issuing 401 water quality certifications for activities permitted under the federal CWA Section 404 permitting program administered by the U.S. Army Corps of Engineers (the “Corps”). EPD’s Environmental Planning Criteria regulations reference the State’s role in the CWA Section 404 permitting process via Section 401 water quality certifications.<sup>3</sup> Beyond this reference, EPD has not specifically promulgated regulations governing Section 401 water quality certification decisions or activities.

Currently, two full-time staff are responsible for reviewing and issuing all Section 401 water quality certifications throughout the State.<sup>4</sup> Their work also involves participation in the Interagency Review Team (“IRT”), which reviews and evaluates Section 404 permitted activities (including required stream and wetland mitigation measures) and oversees the implementation of the EPA and Corps’ compensatory mitigation requirements for Section 404-permitted activities. Currently, EPD does not have written guidance or standard operating procedures; the development of guidance and/or procedures will enhance the Section 401 water quality certification process and will facilitate the transition of knowledge from senior staff to junior staff within the Wetlands Management Unit.

The issuance of Section 401 water quality certifications is a critical tool in the protection of Georgia’s water quality standards. Conditions incorporated in EPD-issued water quality certifications are designed to prevent impacts that would violate water quality standards or other water quality-specific requirements. EPD’s 401 water quality certification program is incomplete, in that it currently lacks sufficient staffing to monitor permitted activities to ensure their compliance with water quality certification conditions or to address instances of non-compliance with such conditions. In order to enhance the Section 401 water quality certification

<sup>3</sup> Ga. Comp. R. & Regs. r. 391-3-16-.03 (2).

<sup>4</sup> Pursuant to an agreement between EPD and the Georgia Department of Transportation (“GDOT”), GDOT provides the necessary funding for two NonPoint Source Program staff to evaluate and issue Section 401 water quality certifications for GDOT projects permitted under CWA Section 404.

process, EPD should hire and train two additional staff who will be responsible for compliance with and enforcement of Section 401 water quality certification conditions. The work conducted by these additional staff will also enhance the State's wetland protection and preservation efforts, as well as enable the collection of wetland monitoring data related to mitigation efforts that may enhance the wetlands monitoring and assessment program.

Under the Wetland Program Plan, EPD will enhance its regulatory efforts through the implementation of the following actions:

Action 2.1: Implement measures to enhance Georgia's CWA Section 401 water quality certification program

Activities:

- Develop set of guidelines and/or procedures for the issuance of 401 water quality
- certifications, including standard practices or general conditions that may be utilized for like projects impacting similar aquatic resources [2011-2012];
- Hire two additional full-time staff to enhance 401 water quality certification compliance and enforcement efforts [2011];
- Develop and implement appropriate mechanisms to monitor compliance with 401
- water quality certification conditions and to deter violations [2011-2013] ;
- Provide appropriate training for all 401 water quality certification staff [ongoing].

Action 2.2: Evaluate potential regulatory enhancements to Georgia's CWA Section 401 water quality certification program

Activities:

- Evaluate regulatory provisions relied upon by other states to support their 401 water quality certification efforts [2011-2012];
- Analyze and, if appropriate, recommend regulations to the Georgia Department of Natural Resources in support of EPD's 401 water quality certification efforts [2013-2014].

Action 2.3: Enhance coordination with federal and state partners in CWA Section 404 permit review process

Activities:

- Work with Interagency Review Team to develop appropriate regional conditions during reauthorization of Corps' Nationwide Permits [2011-2012];
- Investigate and discuss future of Georgia's in-lieu fee program [ongoing];
- Work with federal and states partners to review and, if appropriate, revise the Memorandum of Agreement between Georgia Department of Natural Resources and Corps' Savannah District [2011-2012].

Action 2.4: Integrate wetlands mapping and trend analysis efforts into Georgia's CWA Section 401 water quality certification program

Activities:

- Develop and maintain a robust GIS-based database for tracking issuance and status of 401 water quality certifications and conditions, as well as compliance/enforcement efforts [2011-2012];
- Utilize GIS-based system to identify priority areas for mitigation and compliance/enforcement efforts [ongoing].

### **3.0 Voluntary Restoration and Protection**

Voluntary wetland restoration and protection efforts fall outside of the activities required by existing statutes, regulations, or permitting requirements. These efforts, however, are critical to preventing the loss of valuable wetland resources, creating gains in natural wetlands, and thereby helping achieve the goal of "no net loss."

EPD, through the implementation of Georgia's NonPoint Source Program ("NPSP"), provides funds to local governments to assist with the restoration and protection of wetlands impacted or threatened by nonpoint source pollution. Past projects include wetland construction for municipal stormwater management, and supporting the Georgia Forestry Commission with the investigation of complaints of nonpoint source pollution from silviculture activities impacting State waters, including wetlands. NPSP staff also implement several education and outreach programs designed to promote wetlands education, monitoring, assessment and protection. These programs include the following:

1. *Adopt-A-Wetland Program*: The Coastal Georgia Adopt-A-Wetland ("AAW") program was established in 2001 to foster a sense of personal and community responsibility, and to allow government agencies and citizens to work together within the coastal counties of Bryan, Brantley, Camden, Charlton, Chatham, Effingham, Glynn, Liberty, Long, McIntosh, and Wayne. EPD's AAW program partnered with the University of Georgia's Marine Extension Service (MAREX) during the creation of this program, providing support and guidance during its

inception and throughout its implementation. The AAW program emphasizes the connection between land uses, stormwater runoff and water resources. The program provides citizens with the tools and training to monitor the health of coastal wetland habitats through chemical, physical and biological parameters. Currently, there is a strong base of over 30 active sites being monitored by hundreds of coastal volunteers. There is one full-time coordinator responsible for implementing the Coastal AAW program; however, existing funding for this program will cease in October 2011.

Since 1999 EPD has implemented a noncoastal AAW program. Existing staff within EPD conduct non-coastal AAW workshops, as time permits, when specifically requested. However, current staffing and budget constraints have prevented the full development and promotion of an AAW program outside of the coastal areas of Georgia. Funding to enable the continuation and enhancement of both AAW programs will support EPD's wetland protection efforts, particularly in areas of the state containing critical wetland habitats. Two full-time AAW staff will also be able to devote time and attention to the development and implementation of additional voluntary wetland restoration and protection efforts.

2. *WOW! Wonders of Wetland program:* Wonders of Wetlands is a K-12 curriculum facilitated through Project WET (water education for teachers K-12). The WOW! program provides an instructional guide for educators that provides a resourceful and creative collection of wetland activities, information, and ideas. WOW! includes: over 50 hands-on multidisciplinary activities in lesson plan format, extensive background information on wetlands, ideas for student action projects, and a wetlands resource guide. A committee of educators has correlated WOW! with the National Science Education Standards developed by the National Academy of Sciences.

3. *Amphibian Monitoring Program:* EPD's Adopt-A-Stream Program facilitates this volunteer-based monitoring program for amphibians. Established in 2003, volunteers attend a workshop, receive a corresponding manual and become trained to collect data on amphibians (frogs and salamanders) in wetlands or streams. The program also provides information on options for wetland revegetation activities. Since 2009, there has been more emphasis on this program and recruitment of volunteers. The program is coordinated, as time permits, by existing staff.

4. *Project WET:* Project WET is the premier water education curriculum for teachers offering innovative, interdisciplinary activities correlated to the Georgia Performance Standards. The curriculum framework covers all aspects of water from the physical and chemical properties to its cultural ties. Participants are certified as Project WET educators and take away a copy of the curriculum for use with students in grades K-12.

5. *River of Words:* River of Words ("ROW") conducts a free statewide poetry and art contest for youth on the theme of watersheds (rivers, streams, wetlands, and lakes). The contest is designed to help youth explore the natural and cultural history of the place they live, and to express, through poetry and art, what they discover. Included in the ROW program is a ROW Teacher's Resource Guide with stimulating activities covering journaling, drawing, and writing for K-12 students.



Under the Wetland Program Plan, EPD will develop, facilitate and/or promote voluntary efforts and projects aimed at wetlands restoration and protection through the following actions.<sup>5</sup>

#### Action 3.1: Develop and implement voluntary restoration and protection programs

Activities:

- Solidify and enhance the AAW program by hiring two full-time coordinators to promote voluntary protection activities across the state [2011-2012];
- Provide training and certification on WOW! Wonders of Wetland program [ongoing];
- Develop a wetlands protection guidebook for local governments, and develop and implement guidebook training workshops [2011-2012];

#### Action 3.2: Promote and, where appropriate, implement voluntary efforts designed to protect and prevent the decline of wetland conditions [ongoing]

Activities:

- Utilize appropriate GIS tools to identify and prioritize wetlands for protection and restoration efforts;
- Evaluate available guidance on wetland protection and restoration techniques and success measures;
- Research, and where appropriate, implement wetland protection and restoration project(s);
- Evaluate and provide funding to projects aimed at studying the water quantity and quality benefits of wetlands (e.g., erosion control, buffering stormwater impacts, assimilation of nutrients);
- Promote restoration efforts designed to improve water quality, achieve compliance with water quality standards in impaired waters or priority watersheds, and/or generate commercial, recreational and aesthetic benefits.

#### Action 3.3: Provide information and support critical to other EPD Watershed Protection Branch efforts

Activities:

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<sup>5</sup> EPD will consult with and involve stakeholders, as appropriate, during the implementation of the listed actions and activities.

- Gather and report AAW monitoring data to the WPMP [2011-2012];
- Work with wetlands monitoring and assessment staff to develop the framework for advanced-level wetland volunteer monitoring efforts to be utilized in EPD’s wetland monitoring and assessment program [2013-2015].

Action 3.4: Integrate wetlands mapping and trend analysis efforts into Georgia’s voluntary restoration and protection efforts [ongoing]

Activities:

- Provide information to support the development of GIS database/coverages of wetlands and wetland monitoring sites;
- Utilize GIS-based system to identify priority areas for restoration and protection Efforts

#### **4.0 Water Quality Standards for Wetlands**

The Georgia Water Quality Control Act provides EPD the authority to regulate “waters of the State.” The Water Quality Control Act defines “waters of the State” as: “[A]ny and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wells, 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.”<sup>6</sup>

The Water Quality Control Act’s regulations further define “waters of the State” to explicitly include wetlands.<sup>7</sup> The Georgia Water Quality Control Act also provides EPD the authority to set water quality standards for all waters of the State. The basic elements of water quality standards—designated uses, water quality criteria (narrative or numeric), and an antidegradation policy—provide a sound legal basis for protecting Georgia’s waters. Applying water quality standards to wetlands is an important component of an overall effort to protect and enhance the State’s wetland resources, and provide a stronger regulatory basis for the State’s wetland management and protection efforts.

While Georgia’s designated uses and water quality standards apply to wetlands, EPD has not yet created separate classifications or water quality standards for wetlands. The development of wetland-specific water quality standards is a complex process requiring a significant amount of

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<sup>6</sup> O.C.G.A. § 12-5-22 (13).

<sup>7</sup> Ga. Comp. R. & Regs. r. 391-3-6-.03(3)(n), Water Use Classifications and Water Quality Standards (defining “waters of the State” to include natural or artificial wetlands, “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”).

quality data. The data and information gained from the wetlands monitoring and assessment program will be used as a part of the process in developing standards. Under the Wetland Program Plan, EPD will implement the following actions related to the development of water quality standards for wetlands:

Action 4.1: Evaluate and analyze wetland monitoring/assessment data [2012-2016]

Activities:

- Identify appropriate wetland types or classes;
- Identify metrics or key indicators related to wetlands condition/function;
- Identify reference conditions specific to defined wetland types/classes.

Action 4.2: Perform initial steps towards development of wetland-specific water quality standards

Activities:

- Evaluate the process used by other states to develop and implement wetland-specific water quality standards [2011-2012];
- Evaluate and adopt an appropriate regulatory definition for wetlands [2013-2014];
- Develop an implementation schedule for the development of wetlands-specific water quality standards [2015-2016].