

## South Carolina State Wetland Program Summary



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### **Section A. Quick View**

#### **Description of State's Wetlands**

Ninety percent of South Carolina's wetlands are freshwater (palustrine, lacustrine, and riverine) wetlands. Palustrine wetlands include areas commonly referred to as wet pine flatwoods, pocosins, Carolina bays, beaver ponds, bottom-land hardwood forests, swamps, and tidal-freshwater marshes. Lacustrine wetlands include the shallows of permanently flooded lakes and reservoirs and intermittent lakes. The Riverine and Marine Systems contain mostly deepwater habitat. Riverine wetlands are limited to shallow freshwater river and stream channels or, in the case of deep rivers, to shallow areas near the bank. Estuarine wetlands include intertidal flats and irregularly and regularly flooded salt marshes dominated by emergent vegetation such as saltmeadow cordgrass, black needlerush, and smooth cordgrass.

#### **State Definition of Wetlands**

The South Carolina Pollution Control Act ([www.scstatehouse.net/code/t48c001.htm](http://www.scstatehouse.net/code/t48c001.htm)) broadly defines waters and wetlands are considered "waters of the State," an agency policy that has been upheld in court. For statewide Section 401 purposes, the federal definition of wetlands is utilized. 401 jurisdiction over wetland in South Carolina only extends to those under federal jurisdiction.'

For a subset of wetlands in the state's Coastal Zone, South Carolina's Office of Coastal Resource Management (OCRM) uses the Coastal Zone Management Act definition of wetlands, which define them as "navigable, saline waters shoreward to the high water mark, which are subject to the ebb and flow of the tide." Coastal wetlands include marshes, mudflats, and shallows periodically inundated by saline waters and characterized by wetland vegetation. These are in critical areas and subject to state permits.

*Note: For more information about how regulation is conducted for wetlands in the state and which definitions apply where, refer to the regulation section of this state summary*

**Historic Wetland Loss/Gain** (Source: US Fish and Wildlife Service -Dahl, 1989)

Original Wetland Acreage	Remaining Wetland Acreage	Acreage Lost	% Lost
6,414,000	4,659,000	1,755,000	27%

**Primary State Wetlands Webpages**

- SCDHEC 401 Certification Webpage  
<http://www.scdhec.gov/environment/WaterQuality/401Certification/>
- South Carolina Coastal Zone Management Program  
<http://www.scdhec.gov/HomeAndEnvironment/Water/CoastalManagement/CoastalZoneManagement/CoastalManagementProgram/>

**State Wetland Program Plan**

South Carolina does not currently have a state wetland program plan. However, the state is currently working on the development of a state wetland program plan (funded by EPA state wetland program grants) and plans to have this plan ready for approval by the end of 2015.

**No Net Loss/Net Gain Goal**

The state does not have a statutory "no net loss" goal; however, in 1990 a no net loss goal included as part of a report by the Governor's Freshwater Wetlands Task Force. That goal refers to no net loss of both wetland functions and acreage.

**State Budget for Wetland Work**

Specific budget information is not available from the state. However, state staff report that the vast majority of funding for South Carolina's 401 Program is funded by EPA Wetland Program Development Grants.

**State Permitting Fees**

State Permitting Fee	State Name
Yes/No	YES
Amount (range)	\$100 and \$1,000 for state certification fees (SC does not have permitting fees)*
Agency	SC Dept. of Health and Environmental Control

**Detail:** Environmental Permitting Fees regulations provides information on the amount DHEC can charge for a 401 certification (see Page 7): <http://www.scdhec.gov/Agency/docs/water-regs/r61-30.pdf>

**State Staffing for Wetland Work (Estimates for December 2014; no budget data available)**

<b>State Name</b>	<b>Core element #1: Regulation</b>	<b>Core Element #2: Monitoring and Assessment</b>	<b>Core Element #3: Wetland Water Quality Standards</b>	<b>Core Element #4: Voluntary Wetland Restoration</b>
<b>Agency</b>	Bureau of Water	Among State Agencies Combined	None	None
<b>Staffing</b>	7 FTE (entirely for issuing 401 certifications statewide)	1 FTE for special studies only*(not an ongoing monitoring program; wetlands not part of the ambient monitoring network)		
<b>Agency</b>	OCRM	DNR		
<b>Staffing</b>	Parts of ~20 staff <a href="http://www.scdhec.gov/Agencvdocs/orgchart%20OCRM.pdf">http://www.scdhec.gov/Agencvdocs/orgchart OCRM.pdf</a> (OCRM staff are not considered to be regulatory staff; however, their work reviewing coastal zone permit applications specifically relates to regulatory efforts in the state and is consequently included in this documentation)	Unknown (DNR does conduct monitoring and assessment that may include wetland-related data collection)		
<b>Entity</b>	DNR			
<b>FTE</b>	Unknown (DNR does assist in review, but does not play a formal role in commenting on and reviewing permits.)			

**Description:** Specialist studies have included an assessment of southeast wetlands, participation in a regional study for NWCA intensification purposes, wetland program development work relating to stream assessment, and studies on wetland ecological condition and function.

**Innovative Features**

No information available.

**Models and Templates**

No information available.

**Section B. Regulation**

**How are Wetlands Regulated in South Carolina?**

Regulatory activities pertaining to wetlands are administered by South Carolina's Department of Health and Environmental Control (SCDHEC). SCDHEC's Office of Environmental Quality Control (OEQC), Bureau of Water regulates waters of the state, including wetlands, and issues §401 certifications under the Clean Water Act (CWA). Statewide, 401 Water Quality Certification is applied where a 404 permit is required by federal regulations and follow the same exemptions as those applied under the Section 404 programs by the Corps.

The state's regulation of coastal wetlands is extensive and represents a major component of wetland work in South Carolina. This additional layer of state-level regulation is coordinated by SCDHEC's Office of Ocean and Coastal Resource Management (OCRM)'s Regulatory Division. The Division regulates tideland critical areas through a direct permitting program under the state's Coastal Zone Management Act (CZMA). This program provides two-tiers of regulation. Tier One regulates tideland Critical Areas. Tier Two areas include brackish water wetlands outside the Critical Areas but within the coastal zone.

**Wetland Delineation**

<b>Delineation Guidance</b>	<b>Yes</b>	<b>No</b>	<b>Detail</b>
Use State's Own Method		X	
Use Corps' 1987 Manual and Regional Supplement	X		The state relies on the Corps to conduct all delineations for the 401 certification program.
Other (Please describe)	X		Wetland delineation criteria for tideland critical areas are found in the CZMA and associated regulations.

**Description:** Wetlands are delineated by the Corps for the 401 Certification Program, using the criteria in the U.S. Army Corps of Engineers ("Corps") 1987 *Wetlands Delineation Manual*. Wetland delineation criteria for tideland critical areas are found in the CZMA and associated regulations and are delineated by OCRM.

**Evaluation Methodology**

The Charleston Corps District has guidance on wetland evaluation. The state has not adopted a standard evaluation methodology; however an HGM method for headwater slopelands was developed in 2005 and published in 2012 is available for use in the state for evaluating wetlands. The method is available via the ERDIC website.

**Exempted Activities**

401 Water Quality Certification is applied where a 404 permit is required and follow the same exemptions as those applied under the Section 404 programs by the Corps.

**Special Provisions for Agriculture and Forestry**

401 Water Quality Certification is applied where a 404 permit is required and follow the same exemptions as those applied under the Section 404 programs by the Corps.

## Penalties and Enforcement

No information available.

## Permit Tracking

The SCDHEC has an extensive database for 401 Water Quality Certification and for coastal permits including project information, detailed mitigation information and a GIS layer to provide spatial data on where wetlands are lost and mitigated. This database is part of SDHEC's Environmental Facilities (EFIS) database.

### State General Permit (statewide vs. regional coverage)

Permit Coverage	Yes	No	Detail (Type of Permit)
Regional General Permit		X	
Statewide General Permit		X	

### Assumption of 404 Powers

Assumption Status	Yes	No	Detail
Assumed		X	
Working Toward Assumption		X	
Explored Assumption	X		South Carolina conducted a feasibility study in 1986 and decided not to pursue assumption due to cost.

## Joint Permitting

South Carolina has joint permitting process with the Charleston District of the Corps (SC-Reg 61-101). The joint application serves as an application for both the federal permit and the state's 401 certification.

## Special Area Management Plans and Advanced Identification Plans

SCDHEC has developed special area management plans for several areas within the coastal zone (<http://www.scdhec.gov/HomeAndEnvironment/Water/CoastalManagement/CoastalZoneManagement/SpecialAreaManagementPlans/>). The U.S. Environmental Protection Agency and South Carolina Department of Natural Resources (SCDNR) completed an Advanced Identification (ADID) for Carolina Bays.

## Buffer Protections

South Carolina had a task force working on buffer protections, but the task force's recommendations were not adopted. While there are several local ordinances around the state that address buffer requirements, there are not statewide laws or requirements.

## Mitigation Policy

South Carolina wetlands are mitigated through the Corps for Section 404/401. This work complies with federal regulations and follows the 2008 Mitigation Rule.

Additionally, the non-rule policy document *Policies and Procedures of the South Carolina Coastal Management Program* establishes general guidelines for coastal wetland mitigation in the state. These guidelines include provisions relating to site selection, drawing submittals, hydrological engineering, soils, vegetation establishment, criteria for evaluating success, contingency planning, implementation schedules, and mitigation ratios.

### **Mitigation Database**

The Bureau of Water uses the Environmental Facilities Information System (EFIS) to track §401 certifications and track mitigation activities. OCRM also utilizes EFIS to track critical area permits and coastal certification decisions.

### **Links to Regulatory Documents**

South Carolina Pollution Control Act Website

<http://www.scstatehouse.gov/code/t48c001.php>

*Note: South Carolina's Pollution Control Act provides the statutory authority for the 401 Water Quality Certification regulations and defines waters of the state.*

Coastal Tideland and Wetlands

<http://www.scstatehouse.gov/code/t48c039.php>

## **Section C. Monitoring and Assessment**

### **Agency Responsible for Wetland Monitoring and Assessment**

The state does not have a wetland monitoring and assessment program. Ambient water quality monitoring is conducted by water quality staff for all waters of the State, but does not include wetlands specifically. Special monitoring projects have included an assessment of southeast wetlands, participation in a regional study for NWCA intensification purposes, wetland program development work relating to stream assessment, and studies on wetland ecological condition and function.

### **Mapping/Inventory**

The National Wetland Inventory (NWI) maps are available for state.

### **State Wetland Mapping Public Portal**

DNR Mapping Clearinghouse Webpage

<http://www.dnr.sc.gov/gis.html>

*Note: Mapper tool link is on the right hand side of the page.*

### **Wetland Classification and Assessment**

South Carolina Department of Health and Environmental Control (SCDHEC) has developed a hydrogeomorphic methodology (HGM) for the Atlantic Coastal plain flatwoods region first and second order (headwater) streams.

### **Statewide Wetland Monitoring Plan**

South Carolina does not have a statewide wetland monitoring plan.

**Overall Wetland Gain and Loss Tracking System**

Restoration, enhancement and preservation activities through the 401 Water Quality Certification process are monitored through an extensive tracking system described above, but information about voluntary restoration is limited. Some information on voluntary restoration gains/losses are available in a state GIS database.

**Wetland Monitoring and Assessment Characteristics**

Level	None	Level 1	Level 2	Level 3
<i>South Carolina</i>	X			

Type	None	IBI	Condition	Functional
<i>South Carolina</i>	X*			

Frequency	None	Project Specific	Ongoing
<i>South Carolina</i>		X	

**\*Description:** South Carolina does not operate a formal monitoring and assessment program for wetlands or streams. However, South Carolina's participation in a NWCA Intensification Study as developed a regional database to compare different rapid assessment approaches. Additionally, OCRM uses an informal functional assessment methodology that tracks biological criteria for the purpose of monitoring mitigation and enforcing the CZMA. The agency requires site-specific monitoring for all Critical Area Permits that require mitigation. In addition, the interagency MBRT defines monitoring and assessment requirements for mitigation banks. The Bureau of Water follows standard operating procedures to guide functional assessments of wetland mitigation projects.

**Participation in National Wetland Condition Assessment**

NWCA Study Type	Yes	No
National Study	X	
State Intensification Study	X	

**Detail:** South Carolina's participation in a NWCA Intensification Study as developed a regional database to compare different rapid assessment approaches

**Section D. Water Quality Standards**

**Wetland and Water Quality Standards**

Type	None	Use Existing WQ Standards	In Process	Adopted	Future Direction
Wetland-specific Designated Uses		X			
Narrative criteria in the standards to protect designated wetland uses		X			
Numeric criteria in the standards based on wetland type and location to protect the designated uses		X			
Anti-degradation policy includes wetlands		X			

**Description:** South Carolina's water quality standards (WQS) do not identify criteria specific to wetlands. No specific designated uses, narrative criteria or numeric criteria have been adopted for wetlands. The overall designated uses and narrative and numeric criteria for waters of the state are applied to wetlands. No specific anti-degradation policy has been adopted for wetlands. The anti-degradation rules and policies within the State's water quality standards ([www.scdhec.net/water/regs/r6168fnl.pdf](http://www.scdhec.net/water/regs/r6168fnl.pdf)) apply to all waters of the State, including wetlands. The overall designated uses for waters of the state are applied to wetlands.

## Section E. Voluntary Wetland Restoration

### Types of Wetland Restoration Work Funded by the State:

Type of Work	YES	NO	Description
Fund Wetland Restoration (may include easement agreements)		X	
Private Land Restoration	X		State Conservation Bank provides funds from a general appropriation, fees etc. for restoration projects on private lands <a href="http://sccbank.sc.gov/">(http://sccbank.sc.gov/)</a>
Public Land Restoration		Unknown	DNR may do some restoration on public lands that it manages
Technical Assistance		X	
Tax Incentives	X		Tax breaks to private landowners for preserving Carolina Bays
Other		X	

**Description:** The state does not have a voluntary wetland restoration program or for partnering with private landowners to conserve wetlands.

### Voluntary Wetland Restoration Program Components

Wetland Restoration Efforts	Nothing in the Works	Planning	In Progress	Mature/ Complete
Program has a set of restoration goals	N/A			
Coordinate with relevant agencies that outline restoration/protection goals and strategies and timeframes	N/A			
Developed multi-agency body to coordinate restoration/ protection efforts	N/A			
Set restoration goals based on agency objectives and available information	N/A			

### Goals for Restoration Projects\*

Goal	Yes	No	Description
No Net Loss	N/A		
Reverse Loss/Net Gain	N/A		
Nonpoint Source Pollution (NPS)/WQ	N/A		
Total Maximum Daily Load (TMDLs)	N/A		
Habitat	N/A		
Coastal Protection	N/A		
Floodwater Protection	N/A		
Groundwater	N/A		
Other (please describe)	N/A		

**Landowner Guides and Handbooks to Assist with Voluntary Wetland Restoration Efforts**

None.

**Section F. Innovative and/or Highly Effective Education and Outreach**

None.

**Section G. Climate Change and Wetlands**

South Carolina has not developed a statewide adaptation plan and has not conducted any formal climate change work related to wetlands through the 401 program.

OCRM has addressed some issues relating to the changing coastline, but not as climate change efforts. The South Carolina Department of Health and Environmental Control's Shoreline Change Advisory Committee published a report in 2010 entitled, "Adapting to shoreline change: A Foundation for Improved Management and Planning in South Carolina." The report identifies policy options to limit the exposure of coastal communities to future sea level rise and erosion. Generally, the report recommends that local governments take on a more robust role in beach management and planning. In order to limit seaward development, the authors propose that localities can establish boundary lines beyond which new development should not occur and strengthen setback requirements. Also, the report recommends that the state end subsidies to hazardous areas, government entities strategically acquire vulnerable lands, and the state improve planning for beach renourishment.

<http://www.scdhec.gov/library/CR-009823.pdf> The reports includes recommendations for the erosion control management in estuaries and the establishment of non-beachfront shoreline buffer areas.

In 2011, the Deptmt of Natural Resources developed did not publish a report entitled, "Climate Change Impacts to Natural Resources in South Carolina. The controversial report was later published in 2013. The report details how climate change may affect wildlife, fisheries, water supply and other natural resources in South Carolina, identifying some key adaptive steps for DNR to respond to these impacts. <http://www.dnr.sc.gov/pubs/CCINatResReport.pdf> The report includes information about potential effects to wetlands from changes in sea level rise, changes in precipitation, changes in habitat, as well as recommendations for general DNR responses such as the creation of long-term monitoring programs and mapping - including monitoring and establishing baseline on living and non-living resources and climate trends, implementation of new technologies and the establishment of regional partnerships.

**Section H. Integration**

Entity/Program Area	Yes/No	Description of the Connection	Contact for Follow-up
NPDES/Stormwater	YES	Regular communications; not integrated permitting, but close collaboration especially on big projects (e.g. joint meetings on cyanide)	
303(d)	YES	Although they don't monitor wetlands, when they issue 401 permits, staff document the closest 303(d) waters	
305(b) reporting on wetlands	YES	Include a small amount of information about wetlands	

Total Maximum Daily Load (TMDLs)	YES	Lots of integration, on a project-basis	
Climate Change/ <b>Resiliency</b>	YES	Not in the 401 program; but OCRM has worked to address sea level rise and a changing coastline, but not as climate change work	
Land Use /Watershed planning	NO		
Flood/Hazard Mitigation	NO		
Coastal Work	YES	Wetland work conducted by OCRM; daily communications between 401 staff and OCRM staff	
Wildlife Action Plan	U/K		
Statewide Comprehensive Outdoor Recreation Plan (SCORP)	U/K		
Other (Specify)	U/K		

### State Wetland Program Continuum

Continuum Stage	Core Element 1: Regulation	Core Element 2: Monitoring & Assessment	Core Element 3: Wetland Water Quality Standards	Core Element 4: Voluntary Restoration
Mature Stage <span style="float: right;">High</span>				
Initial Implementation Stage <span style="float: right;">↑</span>	X 401 Certification Program and Additional State Coastal Permitting			
Development Stage				
Early Stage <span style="float: right;">Low</span>		X	X	X

**Detail:** While the state does 401 certifications, there is room for additional work by developing a state-run program.

## **Section I. Contact Information**

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### **OCRM Maine Office**

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## **Section J. Useful Websites**

1. Department of Health & Environmental Control
  - a) 401 Water Quality Certification  
<http://www.scdhec.gov/environment/WaterQuality/401Certification/>
  - b) Ocean & Coastal Resource Management  
The South Carolina Coastal Management Program was established under the guidelines of the national Coastal Zone Management Act (1972) as a state-federal partnership to comprehensively manage coastal resources. It was authorized in 1977 under SC's Coastal Tidelands and Wetlands Act (CTWA) with the goal of achieving balance between the appropriate use, development, and conservation of coastal resources in the best interest of all citizens of the state.

- i. Critical Area and Wetland Permitting  
[http://www.scdhec.gov/environment/ocrm/permit critical area.htm](http://www.scdhec.gov/environment/ocrm/permit%20critical%20area.htm)
- ii. Estuarine Management [http://www.scdhec.gov/environment/ocrm/estuary management.htm](http://www.scdhec.gov/environment/ocrm/estuary%20management.htm)
- a) Coastal Tidelands & Wetlands Act  
<http://www.scstatehouse.gov/code/t48c039.php>
- b) Watershed Management Program  
[https://www.scdhec.gov/environment/water/she d/](https://www.scdhec.gov/environment/water/she%20d/)
- c) Nonpoint Source Management Program  
<https://www.scdhec.gov/environment/water/docs/nps.pdf>
- d) Water Monitoring & Protection  
<https://www.scdhec.gov/environment/water/monitoring.htm>
- e) 303(d) List of Impaired Waters & TMDL Program  
<https://www.scdhec.gov/environment/water/tmdl/>
- a) South Carolina Conservation Bank  
<http://sccbanc.sc.gov/>
- b) Department of Natural Resources
  - a) Wetlands  
<http://www.dnr.sc.gov/wildlife/wetlands/>
- c) South Carolina Sea Grant Consortium  
<http://sc.gov/pages/external.aspx7http://www.scseagrant.org/>
- d) Department of Transportation
  - a) Environmental Management Office  
<http://sc.gov/pages/external.aspx7http://www.scdot.org>

### **Federal Government Programs**

1. USDA Natural Resources Conservation Service  
Wetlands Reserve Program  
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/sc/programs/easements/wetlands/>

### **Other Organization Wetland Programs**

1. Savannah River Ecology Laboratory  
<http://www.srel.edu/>
2. South Carolina Waterfowl Association

<http://www.scwa.org/You-Can-Help-Our-Receding-Wetlands.html>



