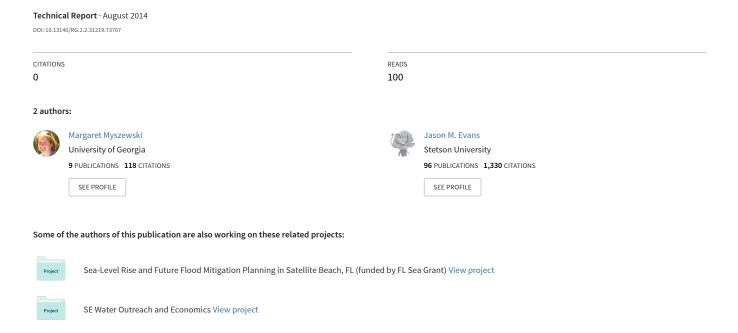
# Summary of Coastal Management Policies Relevant to Sea-Level Rise in Georgia



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## **FEDERAL POLICIES**

## Federal Legislation

Some of the federal laws and presidential executive orders that are relevant to climate change on the coast are summarized below. They are listed alphabetically and encompass all amendments. Dates indicate the year the law was originally passed.

Title	Description	Key Agency(s)	Relevance to Sea-Level Rise
Clean Water Act (Federal Water Pollution Control Act) (1972) 33 U.S.C. 1251 et seq.	Established the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Includes a permit program to regulate the discharge of dredged and fill material into U.S. waters, including wetlands. The purpose of the permit requirement is to reduce wetland damage to a minimum and protect aquatic ecosystems. Provides loans and grants to local governments for wastewater treatment, nonpoint source pollution control, and estuary protection.	<ul> <li>U.S. Army Corps of Engineers</li> <li>U.S. Environmental Protection Agency</li> </ul>	<ul> <li>Saltwater intrusion into coastal freshwater aquifers</li> <li>Potential wetlands loss</li> </ul>
Coastal Barrier Resources Act (1982) 16 U.S.C. 3501 et seq.	Restricts federal expenditures that might encourage or support development, including flood insurance, within the Coastal Barrier Resources System, which consists of undeveloped coastal barriers along the Atlantic, Gulf, and Great Lakes coasts.	• U.S. Fish and Wildlife Service	<ul> <li>Increased coastal flooding and inundation</li> <li>Increased shore erosion and land loss</li> </ul>
Coastal Wetlands Planning, Protection, and Restoration Act (1990) 16 U.S.C. 3951 et seq.	Established the National Coastal Wetlands Conservation Grant Program to provide funding for acquisition, restoration, management and enhancement of coastal wetlands.	U.S. Fish and Wildlife Service	Potential wetlands loss
Coastal Zone Management Act (1972) 16 U.S.C. 1451 et seq.	Provides for management of coastal resources and balances economic development with environmental conservation. Outlines and provides financial support for the National Coastal Zone Management Program and the National Estuarine Research Reserve System.	NOAA/National Ocean Service	<ul> <li>Saltwater intrusion into coastal freshwater aquifers</li> <li>Potential wetlands loss</li> <li>Increased coastal flooding and inundation</li> </ul>

	Recognizes the need for coastal states to anticipate and plan for sea level rise.		<ul> <li>Increased shore erosion and land loss</li> <li>Threats to aquatic and marine ecosystems</li> </ul>
Disaster Mitigation Act (2000) Public Law 106-390	Provides the legal basis for FEMA mitigation planning requirements for State and local governments as a condition of mitigation grant assistance. Amended the Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions and replacing them with requirements that emphasize the need for State and local entities to closely coordinate mitigation planning and implementation efforts. The requirement for a State mitigation plan is continued as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the State level through the establishment of requirements for two different levels of state plans. Established a new requirement for local mitigation plans and authorized up to 7 percent of Hazard Mitigation Grant Program funds available to a State for development of State and local mitigation plans.	Federal Emergency Management Agency	<ul> <li>Increased coastal flooding and inundation</li> <li>Increased shore erosion and land loss</li> </ul>
Endangered Species Act (1973) 16 U.S.C. 1531 et seq.	Provides for the conservation of endangered and threatened species of fish, wildlife, and plants and the ecosystems on which they depend. Authorizes the determination and listing of species as endangered and threatened. Prohibits unauthorized taking, possession, sale, and transport of endangered species. Provides funding to acquire land for the conservation of listed species and to support state programs.	<ul> <li>NOAA/National Marine Fisheries Service</li> <li>U.S. Fish and Wildlife Service</li> </ul>	<ul> <li>Threats to aquatic and marine ecosystems</li> <li>Saltwater intrusion into coastal freshwater and estuarine ecosystems</li> <li>Increased shore erosion and land loss</li> </ul>
Estuary Protection Act (1968) 16 U.S.C. 1221 et seq.	Encourages consideration in planning and development activities of the value of estuaries and the need to protect, conserve, and restore them.	U.S. Fish and Wildlife Service	<ul> <li>Saltwater intrusion into coastal freshwater and estuarine ecosystems</li> <li>Threats to aquatic and marine ecosystems</li> </ul>
Estuary Restoration Act (2000) 33 U.S.C. 2901 et seq.	Makes restoring estuaries a national priority. Promotes the restoration of estuary habitat by forging effective partnerships among public agencies and between the public and private sectors, providing	<ul> <li>Natural Resources         Conservation Service     </li> <li>NOAA/National Marine         Fisheries Service/National     </li> </ul>	<ul> <li>Saltwater intrusion into coastal freshwater and estuarine ecosystems</li> <li>Threats to aquatic and marine</li> </ul>

	financial and technical assistance for estuary habitat restoration projects, and developing and enhancing monitoring and research capabilities.	Ocean Service  U.S. Army Corps of Engineers  U.S. Environmental Protection Agency  U.S. Fish and Wildlife Service	ecosystems
Migratory Bird Treaty (1918) 16 U.S.C. 703 et seq.	Recognizes that migratory birds have value for aesthetic, scientific, recreational, and economic purposes. Regulates the taking, killing, or possession of migratory birds. Protects migratory birds, birds in danger of extinction, and their environment by preserving, distributing, introducing, and restoring game birds and other wild birds.	U.S. Fish and Wildlife Service	<ul> <li>Threats to aquatic and marine ecosystems</li> <li>Saltwater intrusion into coastal freshwater and estuarine ecosystems</li> <li>Increased shore erosion and land loss</li> </ul>
National Flood Insurance Act (1968) 42 U.S.C. 4001 et seq.	Established the National Flood Insurance Program to provide insurance against flood losses and encourage sound land use. Requires communities to participate in the flood insurance program as a condition of future federal financial assistance. Requires the purchase of flood insurance by property owners who are being assisted by federal programs or by federally supervised, regulated, or insured agencies or institutions in the acquisition or improvement of land or facilities (e.g., mortgages) in special flood hazard areas.	Federal Emergency     Management Agency	<ul> <li>Increased coastal flooding and inundation</li> <li>Increased shore erosion and land loss</li> </ul>
North American Wetlands Conservation Act (1989) 16 U.S.C. 4401 et seq.	Provides for the conservation of wetland ecosystems for waterfowl, other migratory birds, fish, and wildlife through a nonregulatory, incentive-based program that encourages public-private partnerships and provides financial assistance for projects.	U.S. Fish and Wildlife Service	Potential wetlands loss
Robert T. Stafford Disaster Relief and Emergency Assistance Act (1974) 42 U.S.C. 5121 et seq.	Established the process by which the federal government provides assistance to state and local governments to alleviate damages which result from disasters. Encourages and provides funding for hazard mitigation and requires state and local hazard mitigation plans for some types of assistance.	Federal Emergency     Management Agency	<ul> <li>Increased coastal flooding and inundation</li> <li>Increased shore erosion and land loss</li> </ul>
Water Resources Development Act (multiple years) 33 U.S.C. 2201 et seq.	Authorizes funding for water-related projects, including beach nourishment, clean water, and flood control programs.	• U.S. Army Corps of Engineers	<ul><li>Increased coastal flooding and inundation</li><li>Increased shore erosion and</li></ul>

			land loss
		•	Saltwater intrusion into coastal freshwater aquifers
Watershed Protection and Flood Prevention	Authorizes technical and financial assistance to state and local governments for planning and installing  • Natural Resources	•	Increased coastal flooding and inundation
Act (1954) 16 U.S.C. 1001 et seq.	watershed projects to address natural resource issues Conservation Service such as flooding and sedimentation.	•	Increased shore erosion and land loss

## Federal Executive Orders

Title	Description
Executive Order 11988 Floodplain Management (1977) Codified under 42 U.S.C. 4321	Directs federal agencies to provide leadership and take action to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains by evaluating the potential effects of any actions (federally conducted, approved, or funded) they may take in a floodplain and avoiding harm where practicable.
Executive Order 11990 Protection of Wetlands (1977) Codified under 42 U.S.C. 4321	Directs federal agencies to provide leadership and take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands by evaluating the potential effects of any actions (federally conducted, approved, or funded) they may take in a wetland and avoiding harm where practicable.
Executive Order 13514 Federal Leadership in Environmental, Energy, and Economic Performance (2009)	Requires agencies to participate in the interagency Climate Change Adaptation Task Force to develop a U.S. strategy for adaptation to climate change and approaches through which the policies and practices of the agencies can be made compatible with and reinforce the strategy.
Executive Order 13547 Stewardship of the Ocean, Our Coasts, and the Great Lakes (2010)	Establishes a national policy to ensure the protection, maintenance, and restoration of the health of ocean, coastal, and Great Lakes ecosystems and resources, enhance the sustainability of ocean and coastal economies, preserve our maritime heritage, support sustainable uses and access, provide for adaptive

management to enhance our understanding of and	
management to enhance our understanding of and	
capacity to respond to climate change and ocean	
acidification, and coordinate with our national security	
and foreign policy interests.	

Adapted from: National Oceanic and Atmospheric Administration (NOAA). 2010. <u>Adapting to Climate Change: A Planning Guide for State Coastal Managers</u>. NOAA Office of Ocean and Coastal Resource Management. <a href="http://coastalmanagement.noaa.gov/climate/adaptation.html">http://coastalmanagement.noaa.gov/climate/adaptation.html</a>.

## Federal Agencies

## National Oceanic and Atmospheric Administration

The National Oceanic and Atmospheric Administration's (NOAA) research and information services work to advance scientific understanding of climate variability and change, and their impacts on human and natural systems. In carrying out its climate science and services mission, NOAA is working to meet the following objectives:

- Improved scientific understanding of the changing climate system and its impacts;
- Assessments of current and future states of the climate system that identify potential impacts and inform science, service, and stewardship decisions;
- Mitigation and adaptation choices supported by sustained, reliable, and timely climate services;
   and
- A climate-literate public that understands its vulnerabilities to a changing climate and makes informed decisions.

## **U.S. Geological Survey**

The <u>U.S. Geological Survey (USGS) Global Change Program</u> supports the Department of Interior's goal to improve the understanding of national ecosystems and resources through integrated interdisciplinary assessments. The Program's office is composed of two topical assessment centers: the National Climate Change and Wildlife Science Center and the National Carbon Sequestration Assessments. These centers both contribute to and use the data collection, storage, and analysis capabilities of the Department of Interior's integrated national observation and research network for determining and tracking the status and trends of whole ecosystems subjected to a changing climate.

## **Environmental Protection Agency**

The Environmental Protection Agency's (EPA) <u>Global Change Research Program</u> provides scientific information to stakeholders and policymakers to support them as they decide whether and how to respond to the risks and opportunities presented by climate change. The program is stakeholder-oriented, with primary emphasis on assessing the potential consequences of global change (particularly climate variability and change) on air quality, water quality, aquatic ecosystems, and human health in the United States. EPA uses the results of these studies to investigate adaptation options to improve society's ability to effectively respond to climate change, and to develop decision support tools for resource managers coping with a changing climate. EPA has also invested in decision support tools to help decision-makers evaluate alternative strategies for reducing greenhouse gas emissions and the environmental implications of those strategies. The program uses a place-based approach because the impacts of global change and their solutions are often unique to a location (e.g. a watershed).

## Fish and Wildlife Service, Department of the Interior

The U.S. Fish and Wildlife Service (Service) climate change strategy, titled "Rising to the Urgent Challenge: Strategic Plan for Responding to Accelerating Climate Change," establishes a basic framework within which the Service will work as part of the larger conservation community to help ensure the sustainability of fish, wildlife, plants and habitats in the face of accelerating climate change. The Strategic Plan is implemented through an action plan that details the specific steps the Service will take during the next five years to carry out the Strategic Plan.

## Climate Change Adaptation Task Force

The Climate Change Adaptation Task Force's (Task Force) work has been guided by a strategic vision of a resilient, healthy, and prosperous nation in the face of a changing climate. To achieve this vision, the Task Force identified a set of guiding principles to aid public and private decision-makers in their work designing and implementing climate change adaptation strategies.

## **National Ocean Council**

The National Ocean Council is an executive committee which has nine priority objective areas: • Ecosystem-Based Management, • Coastal and Marine Spatial Planning, • Inform Decisions and Improve Understanding, • Coordinate and Support, • Resiliency and Adaptation to Climate Change and Ocean Acidification, • Regional Ecosystem Protection and Restoration, • Water Quality and Sustainable Practices on Land, • Changing Conditions in the Arctic, and • Ocean, Coastal, and Great Lakes Observations, Mapping and Infrastructure.

## **U.S. Global Change Research Program**

The U.S. Global Change Research Program (USGCRP) coordinates and integrates federal research on changes in the global environment and their implications for society. The USGCRP began as a presidential initiative in 1989. Thirteen federal departments and agencies participate in the USGCRP, which was known as the U.S. Climate Change Science Program from 2002 through 2008. Since its inception, the USGCRP has supported research and observational activities in collaboration with several other national and international science programs. These activities led to major advances in several key areas including but not limited to:

- Observing and understanding short- and long-term changes in climate, the ozone layer, and land cover;
- Identifying the impacts of these changes on ecosystems and society;
- Estimating future changes in the physical environment, and vulnerabilities and risks associated with those changes; and
- Providing scientific information to enable effective decision making to address the threats and opportunities posed by climate and global change.

### SOUTHEASTERN OCEAN AND COASTAL REGION

## **South Atlantic Alliance**

In 2009, the governors of North Carolina, South Carolina, Georgia, and Florida signed the South Atlantic Alliance Partnership Agreement, forming the Governors' South Atlantic Alliance (Alliance). The Alliance is led by the four states in partnership with three federal agencies – the National Oceanic and Atmospheric Administration, U.S. Environmental Protection Agency, and U.S. Geological Survey. Representatives from academia, non-governmental organizations, regional organizations and private industry also participate. The Alliance supports both national and state-level ocean policy by coordinating federal, state, and local entities to ensure the sustainability of the region's economic, cultural, and natural resources.

Governors' South Atlantic Alliance Action Plan: The Action Plan is a regional response to address the key environmental, economic, and cultural issues facing the Southeastern U.S. coastal and ocean region. Four Priority Issue Areas were identified by the Governors to be of mutual importance to the sustainability of the region's resources: healthy ecosystems, working waterfronts, clean coastal and ocean waters, and disaster-resilient communities. The Plan includes a description, goals, supporting objectives and specific actions for each of the priorities. Objectives and actions concerning sea-level

rise are found within the priority issue areas of healthy ecosystems and disaster-resilient communities.

<u>Governors' South Atlantic Alliance Implementation Plan 2011</u>: The Implementation Plan is a regional response to address key environmental, economic, national defense, and cultural issue areas facing the Southeastern U.S. coasts and ocean. Under this plan, Issue Area Technical Teams develop actions to address the objectives of the four Action Plan issue areas.

<u>South Atlantic Regional Research Project</u>: The South Atlantic Regional Research Program (SARRP) is a regional, multi-agency project to develop a coordinated coastal and ocean research plan for the southeastern U.S. The project's goals are to identify regional priority research needs and foster partnerships to address those priorities. SARRP's geographic scope spans the southeastern U.S. coast, from the northern border of North Carolina to the southern tip of Florida.

South Atlantic Regional Research Plan: The South Atlantic Regional Research Plan identifies areas of research, including habitat mapping, data on distribution and abundance of organisms, tracking species shifts, and assessing other impacts of climate change on coastal habitats and species. After conducting a Needs Assessment and a Stakeholder Survey, high priority research topics relating to each of the Issue Areas of the SAA's Action Plan were identified.

# **GEORGIA STATE POLICIES**

# State Legislation

Title	Description	Relevance to Sea-Level Rise
Coastal Marshlands Protection Act (1970 ) O.C.G.A. §12-5-280 et seq.	Specifies that marshlands may not be filled, drained, dredged, or otherwise altered without a permit from the Coastal Marshlands Protection Committee. Indicates the process for obtaining a permit. Authorizes marshland inspection by the Department of Natural Resources to verify compliance with the Act, and enforcement in the case of noncompliance.	<ul> <li>Increased coastal flooding and inundation</li> <li>Increased shore erosion and land loss</li> <li>Threats to aquatic and marine ecosystems</li> <li>Saltwater intrusion into coastal freshwater and estuarine ecosystems</li> <li>Potential wetlands loss</li> </ul>
Conservation Use Act O.C.G.A §48-5-7.4	Provides property tax reductions to qualified landowners who conserve environmentally sensitive areas for ten years. Environmentally sensitive areas include habitats with endangered species, wetlands, floodplains, stream corridors, undeveloped barrier islands, steep slopes and wildlife habitat larger than ten acres.	<ul> <li>Potential wetlands loss</li> <li>Saltwater intrusion into coastal freshwater and estuarine ecosystems</li> <li>Increased shore erosion and land loss</li> </ul>
Endangered Wildlife Act (1973 ) O.C.G.A. §§27-3-130 to -133	Provides for identification, inventory, and protection of animal species that are rare, unusual, or in danger of extinction, and are found on public lands. Prohibits the capture, killing, or selling of protected species on public land, and protects public lands that are listed as species' habitat.	<ul> <li>Threats to aquatic and marine ecosystems</li> <li>Saltwater intrusion into coastal freshwater and estuarine ecosystems</li> <li>Potential loss of wetlands</li> </ul>
Erosion and Sedimentation Act (1975 )  O.C.G.A. §12-7-1 et seq.	Regulates land-disturbing activity which may result in soil erosion including non-agricultural clearing, dredging, grading, excavating, transporting, and filling of land. The Environmental Protection Division or certified local authorities issue permits and enforce the law. Permit applicants must demonstrate that they have erosion and sedimentation control plans that meet the Best Management Practices established for the particular application. Also mandates stream buffers of 25 feet for most streams and 50 feet for trout streams.	<ul> <li>Increased coastal flooding and inundation</li> <li>Increased shore erosion and land loss</li> </ul>
Game and Fish Code	Vests Georgia with the ownership and control of	Threats to aquatic and marine ecosystems

O.C.G.A. §27-1-1 et seq.	all wildlife in the State. Authorizes the Wildlife Resources Division to protect, manage and conserve terrestrial wildlife and fresh water wildlife resources. The Coastal Resources Division issues shellfish permits, regulates marine fisheries activities, regulates marine species size and creel limits, and enforces the National Shellfish Sanitation Program.	Saltwater intrusion into coastal freshwater and estuarine ecosystems
Georgia Coastal Management Act O.C.G.A. §§12-5-320 to -331.	Authorizes the State to prepare and administer a coastal management program. Establishes procedural requirements for the Department of Natural Resources to develop and implement a program for the sustainable development and protection of coastal resources. Requires other State agencies to cooperate with the Coastal Resources Division when exercising their activities within the coastal area.	<ul> <li>Increased coastal flooding and inundation</li> <li>Increased shore erosion and land loss</li> <li>Threats to aquatic and marine ecosystems</li> </ul>
Georgia Land Conservation Act O.C.G.A. §36-22-1 et seq.	Promotes land conservation by providing funds to state and local governments and encouraging partnerships with the private sector. Directs the Department of Natural Resources to establish a land conservation program, to work with local governments to identify and review land conservation projects, and to maintain a geographic information system designed to serve as a comprehensive database of land protection activities.	<ul> <li>Potential wetlands loss</li> <li>Threats to aquatic and marine ecosystems</li> <li>Saltwater intrusion into coastal freshwater and estuarine ecosystems</li> </ul>
Georgia Natural Areas Act O.C.G.A. §§12-3-90 to -94.	Authorizes the Department of Natural Resources to identify natural areas in the State that are of unusual ecological significance and ought to be set aside and permanently protected or managed for the purpose of preserving natural plant or animal communities, rare or valuable members of such communities, or any other natural features of significant scientific, educational, geologic, ecological, or scenic value.	<ul> <li>Increased coastal flooding and inundation</li> <li>Increased shore erosion and land loss</li> <li>Potential wetlands loss</li> <li>Threats to aquatic and marine ecosystems</li> <li>Saltwater intrusion into coastal freshwater and estuarine ecosystems</li> </ul>
Georgia Ports Authority Act O.C.G.A. §52-2-1 et seq.	Creates and provides laws governing the Georgia Ports Authority, which is given primary responsibility for managing state ports. The Authority can construct, acquire, repair, maintain,	

	improve, equip, operate, and manage Georgia harbors, seaports, and their port facilities, including wharves, docks, piers, warehouses or other buildings.	
Georgia Uniform Conservation Easement Act O.C.G.A §§44-10-1 to -8	Defines conservation easements and describes their purposes as retaining or protecting natural, scenic, or open-space values of real property; assuring its availability for agricultural, forest, recreational, or open-space use; and protecting natural resources. Also provides for reevaluation of property values of encumbered properties.	<ul> <li>Potential wetlands loss</li> <li>Threats to aquatic and marine ecosystems</li> <li>Saltwater intrusion into coastal freshwater and estuarine ecosystems</li> </ul>
Georgia Water Quality Control Act O.C.G.A. §12-5-20	Bans the disposal of sewage, industrial wastes, or other wastes, or surface water withdrawals, diversions, or impoundments without a permit. Authorizes the Environmental Protection Division to revise rules and regulations pertaining to water quality and quantity, set permit conditions and effluent limitations, and set permissible limits of surface water usage for both consumptive and non-consumptive uses. The rules and permits of the Environmental Protection Division must be consistent with Coastal Management Program policies.	Saltwater intrusion into coastal freshwater aquifers
Mountain and River Corridor Protection Act (informal title)  O.C.G.A. §12-2-8	Establishes minimum standards for land use in order to protect and preserve the state's natural resources, environment, and vital areas, including the state's mountains, river corridors, watersheds, and wetlands. Establishes vegetative buffers for river corridors. Requires local and regional governments to identify and map river corridors in their land use plans and address whether alteration would adversely affect the flow or quality of water, cause erosion or shoaling, or adversely impact adjacent sensitive natural areas.	<ul> <li>Increased coastal flooding and inundation</li> <li>Increased shore erosion and land loss</li> <li>Threats to aquatic and marine ecosystems</li> <li>Saltwater intrusion into coastal freshwater and estuarine ecosystems</li> </ul>
Nongame Wildlife Conservation Programs Act (informal title)  O.C.G.A §§12-3-600 to -602.	Establishes nongame wildlife conservation programs, wildlife habitat acquisition programs, and educational and promotional activities in support of these programs.	<ul> <li>Threats to aquatic and marine ecosystems</li> <li>Saltwater intrusion into coastal freshwater and estuarine ecosystems</li> </ul>
Shore Protection Act O.C.G.A. §§12-5-230 to -248	Limits activities in shore areas and requires a permit for certain activities and structures on the	<ul><li>Increased coastal flooding and inundation</li><li>Increased shore erosion and land loss</li></ul>

beach. Limits construction activity in sand dunes	•	Threats to aquatic and marine ecosystems
to temporary structures permitted by the Coastal		
Resources Division. Bans structures such as boat		
basins, docks, marinas, and boat ramps in the		
dunes. Prohibits unauthorized operation of any		
motorized vehicle on or over the dynamic dune		
fields and beaches. Also prohibits storage or		
parking of sailboats, catamarans, or other marine		
craft in the dynamic dune field. Permits must be		
consistent with the Georgia Coastal Management		
Program.		

Adapted from: Georgia Department of Natural Resources, Wildlife Resources Division. 2005. A Comprehensive Wildlife Conservation Strategy for Georgia.

## State Agencies

## **Georgia Emergency Management Agency**

<u>Hazard Mitigation Division</u>: The Georgia Emergency Management Agency's Hazard Mitigation Division coordinates updates of the Georgia Hazard Mitigation Strategy and provides technical assistance to state agencies and local governments in developing their hazard mitigation plans and projects. A <u>hazard mitigation plan</u> forms the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. The planning process creates a framework for risk-based decision making to reduce damages to lives, property, and the economy from future disasters.

Georgia Hazard Mitigation Strategy Standard and Enhanced (2011-2014): Georgia's Hazard Mitigation Strategy (Plan) is a result of the State of Georgia's continued efforts to reduce the State's exposure to losses from natural hazards and to maintain eligibility for the full range of federal disaster assistance available. The updated Plan provides a detailed account of the state planning process; a more detailed and methodical assessment of Georgia's hazard history, hazard risk, and social vulnerability; and an updated version of specific mitigation goals and objectives as well as a progress report of previously proposed actions. Also, the Plan affords more information derived from local participation in mitigation efforts including a local capability assessment and the local mitigation plan development process.

Georgia Mitigation Information System (GMIS): The GMIS is a database containing a high level of statewide data on natural hazards. GMIS supports the documentation and implementation of mitigation activities throughout the State by mapping and reporting critical facilities, mitigated properties, and National Flood Insurance Program properties. Currently, critical facilities information is available for querying, information gathering, and reporting. Cities and counties are now able to use and incorporate this data for their local hazard mitigation plan.

<u>Coastal Regional Commission</u>: The Coastal Regional Commission (CRC) is a multi-county planning and development agency which serves ten counties and 35 cities in coastal Georgia. The region encompasses the six coastal counties and four inland counties and has a total land area of over 5,110 square miles. The CRC provides local and regional comprehensive planning services as well as specialized planning services in transportation, water resources, and historic preservation. The CRC also provides Geographic Information Services and Information Technology services to local governments.

Coastal Georgia Comprehensive Plan Agenda (2008): This Plan focuses on coastal issues that are particularly urgent including the conservation of natural resources. Protection of the barrier islands, marshlands, forested areas, wildlife, habitats, coastal waterways, the Floridan aquifer, and greenspace in general, aside from being worthy in its own right, provides many ancillary benefits such as: improving public health, promoting tourism, ensuring future water supplies, and creating a general sense of well-being. The Plan establishes the standards by which local governments may manage their growth, with help and coordination from the CRC.

Regional Important Resources Plan: This Plan identifies wetlands, floodplains, the beaches and hammock marshes in federal wildlife management reserves and state priority habitats, and Cumberland, Sapelo, and Skidaway Islands as regionally important resources (RIRs). RIRs are natural or historic resources that are of sufficient size or importance to warrant special consideration by local governments having jurisdiction over the resource. The Plan includes guidance for

appropriate development practices and general policies, protection measures, and management strategies for identified RIRs.

<u>Regional Plan of Coastal Georgia (2012)</u>: The Regional Plan resulted from a comprehensive review and analysis of coastal Georgia's land development trends and patterns that identified opportunities and challenges facing the region.

## **Georgia Department of Natural Resources**

Coastal Resources Division: The Coastal Resources Division (CRD) is the state agency entrusted to manage Georgia's coastal marshes, beaches, waters, and marine fisheries resources for the benefit of present and future generations. The Division's service area extends from the inland reach of the tidal waters to three miles offshore. CRD administers permitting programs under the Coastal Marshlands Protection Act and Shore Protection Act; issues revocable licenses for use of state-owned water bottoms; monitors coastal water quality; and manages shellfish harvest areas. CRD also conducts research; manages and develops activities associated with recreational and commercial fishery resources; represents Georgia on regional marine fishery boards and commissions; and builds boat ramps, artificial reefs, and fishing piers.

Georgia Coastal Management Program: The Georgia Coastal Management Program (GCMP) covers eleven coastal counties, and administers the Coastal Management Program. Its functions include program and grant administration, technical assistance to local governments, outreach and education, facilitation of stakeholder processes, coastal water quality monitoring for beaches and shellfish, and implementation of the Coastal Incentive Grant Program. The GCMP also is the State's lead for the Coastal and Estuarine Land Conservation Program. The GCMP manages activities affecting the marsh or oceanfront shoreline that fall under the authority of the Coastal Marshlands Protection Act and the Shore Protection Act, and also issues revocable licenses for uses of state-owned tidal water bottoms that include private recreational docks, bank stabilization projects, and other permitted projects.

<u>Environmental Protection Division</u>: The Environmental Protection Division (EPD) is the state agency that is charged with protecting and restoring Georgia's environment. EPD implements, applies, and enforces state environmental laws, rules, and policies.

<u>Floodplain Management Office</u>: The Floodplain Management Office assists local governments in maintaining compliance with the National Flood Insurance Program (NFIP) criteria. The Office also conducts floodplain management reviews, and manages the development of flood hazard mapping.

These two model Flood Damage Prevention Ordinances are designed for communities participating in the (NFIP). Each ordinance complies with FEMA's floodplain management regulations.

- Flood Damage Prevention Model Ordinance Coastal
- Flood Damage Prevention Model Ordinance Riverine

<u>Floodplain Management in GA Quick Guide</u>: This is a reference guide for local officials and persons involved in floodplain determination, enforcement and review that references the requirements of the (NFIP) and basic techniques of floodplain management.

## **Guidance Documents for Local Governments**

Coastal Stormwater Supplement to the Georgia Stormwater Management Manual: The Georgia Stormwater Management Manual is a policy document designed to provide guidance on the basic principles of effective stormwater management for Georgia communities. The Coastal Stormwater Supplement was developed by Chatham County-Savannah Metropolitan Planning to provide specific guidance for Georgia's coastal communities. The Supplement is a comprehensive guidance document focused on prevention of stormwater runoff using a green infrastructure-based approach to natural resource protection, stormwater management, and site design.

<u>Coastal Green Growth Guidelines</u>: The Green Growth Guidelines outline the environmental, social, and economic benefits of using low impact development strategies when compared to conventional development approach. They provide a guide for environmentally sensitive development in Georgia's coastal zone for developers and builders, accompanied by model ordinances that create development regulations and standards tailored to the individual needs of each community.

<u>Model Coastal Riparian Buffer Ordinance for Georgia's Local Governments</u>: This model ordinance provides a framework for local governments to establish buffer zones for streams, lakes, coastal marshlands, and freshwater wetlands. The ordinance also shows decision-makers how to develop requirements to minimize land development within those buffers. The purpose of buffer zone requirements is to protect and stabilize stream banks, prevent sedimentation of coastal water resources, protect water quality for important nursery areas for fisheries, and preserve aquatic and riparian habitat.

<u>Coastal Riparian Buffer Guidance Manual: A Companion to the Model Coastal Buffer Ordinance</u>: This manual provides specific guidance in implementing the model coastal riparian buffer ordinance.

<u>Protecting Riparian Buffers in Coastal Georgia: Management Options</u>: This document contains an explanation of the protection that can be provided by riparian buffers in coastal areas. A model riparian buffer ordinance tailored to meet the specific needs of local governments along Georgia's coast is included.

<u>Criteria for Wetlands Protection 391-3-16-.03</u>: These criteria are part of the Minimum Planning Standards that deal specifically with the protection of wetlands. They are meant to provide local governments with guidelines to use in preparing their comprehensive plans as required by the Georgia Planning Act. They set forth the minimum requirements to be met in each local comprehensive plan.

## GEORGIA LOCAL GOVERNMENT POLICIES

Planning is the term used to describe how a community shapes and guides growth and development. In Georgia, local governments must complete a comprehensive land use plan and a hazard mitigation plan. Although these documents do not deal directly with sea-level rise, they do contain information about the natural resources in a community that may be affected by sea-level rise (e.g., beaches, marshland, wetland) and disaster events that may be exacerbated by sea-level rise (e.g., storm surge, floods, coastal erosion).

Information concerning natural resources is found in three sections of the conservation plans:

• <u>The Future Development Map Designation: Conservation Areas</u>: This section includes the local government's definition of conservation area(s) and provides implantation measures that will be taken to protect the area(s).

- <u>The Quality Community Objective: Resource Conservation:</u> This section describes the community's conservation goals and how they will be implemented.
- <u>Issues and Opportunities: Natural Resources:</u> This section consists of a list of issues and opportunities identified by the community for further action.

Information concerning hazards related to sea-level rise is found in two sections of the hazard mitigation plans: the Natural Hazard Risk and Vulnerability Summary; and the Natural Hazard Mitigation Goals and Objectives section. Although every local government in Georgia must have a hazard mitigation plan, only a few are available online. Links are provided where available.

## **Counties**

## **Brantley**

<u>Joint Comprehensive Plan - Community Agenda (2006-2026)</u>: Includes Brantley County and the Cities of Hoboken and Nahunta.

Short Term Work Program (2011)

**Brantley County Hazard Mitigation Plan** 

## **Bryan**

<u>Joint Comprehensive Plan – Community Agenda (2008-2018)</u>: Includes Bryan County and the Cities of Pembroke and Richmond Hill.

Bryan County Hazard Mitigation Plan

#### Camden

<u>Unified Development Code</u>: Sets out the minimum requirements and standards for the protection of the natural environment within the county, including restrictions on the use of land near certain rivers and streams and wetlands, in order to protect plant and animal habitats as well as other natural resources, to help control erosion and river sedimentation and to help absorb flood waters. Also contains requirements for stormwater control, zoning (including buffers) and lays out beach and dune protection overlay districts, environmental protection areas, and environmental resource conservation areas.

<u>Joint Comprehensive Plan - Community Agenda (2008-2018)</u>: Includes Camden County and the Cities of Kingsland, St. Marys, and Woodbine.

<u>Camden County Joint Hazard Mitigation Plan Update (2010-2015)</u>: Includes Camden County and the Cities of Kingsland, Woodbine, and St. Marys.

## Charlton

<u>Joint Charlton County 2030 Comprehensive Plan - Community Agenda</u>: Includes Charlton County and the Cities of Folkston and Homeland.

<u>Charlton County, Georgia pre-Disaster Mitigation Plan (2007-2012)</u>: Includes Charlton County, and the Cities of Folkston and Homeland.

#### Chatham

Chatham-Savannah Comprehensive Plan - Community Agenda (2006-2033)

Short Term Work Program (2011)

<u>Hazard Identification, Risk Assessment and Vulnerability: Chatham County Multi-Jurisdiction Pre-Disaster Hazard Mitigation Plan Annexes (2010)</u>: Includes Chatham County and the Cities of Bloomingdale, Garden City, Pooler, Port Wentworth, Thunderbolt, Savannah, and Tybee Island.

<u>Chatham County Pre-Disaster Hazard Mitigation Plan (2009)</u>: Includes Chatham County and the Cities of Bloomingdale, Garden City, Pooler, Port Wentworth, Thunderbolt, Savannah, and Tybee Island.

Chatham County Emergency Operations Plan

## **Effingham**

<u>Joint Comprehensive Plan - Community Agenda (2009-2019)</u>: Includes Effingham County and the Cities of Guyton, Springfield, and Rincon.

**Effingham County Mitigation Plan** 

## Glynn

Glynn County Comprehensive Plan Update - Community Agenda (2008-2018): Island areas include St. Simons Island area (which includes Sea Island and Little St. Simon Island), Blythe Island, and Jekyll Island (managed by the Jekyll Island State Park Authority).

<u>Joint Comprehensive Multi-Hazard Mitigation Plan</u>: Includes Glynn County and the Cities of Jekyll Island and Brunswick.

## Liberty

<u>Consolidated Comprehensive Plan 2030 - Community Agenda</u>: Includes Liberty County and the cities of Allenhurst, Flemington, Gum Branch, Hinesville, Midway, Riceboro, and Walthourville.

<u>Liberty County Multi-Jurisdictional Hazard Mitigation Plan (2011)</u>: Includes Liberty County and the Cities of Allenhurst, Gum Branch, Flemington, Hinesvile, Midway, Riceboro, and Walthourville.

## Long

County Comprehensive Plan – Natural and Cultural Resources (2005-2025)

**Long County Hazard Mitigation Plan** 

## McIntosh

<u>Partial Update to Joint County/City Comprehensive Plan (2008)</u>: Includes McIntosh County and the City of Darien.

McIntosh County - City of Darien Joint Hazard Mitigation Plan Update (2010-2015)

## Wayne

<u>Wayne County Joint Comprehensive Plan - Community Agenda (2010-2020)</u>: Includes Wayne County and the cities of Jesup, Odum, and Screven.

## Wayne County Hazard Mitigation Plan

## **Municipalities**

#### **Brunswick**

Comprehensive Plan - Community Agenda (2008-2018)

Joint Comprehensive Multi-Hazard Mitigation Plan Hazard Mitigation Plan

## Bloomingdale

Comprehensive Plan – Partial Update (2008)

Short Term Work Program Update (2011)

<u>Hazard Identification, Risk Assessment and Vulnerability: Chatham County Multi-Jurisdiction Pre-</u> Disaster Hazard Mitigation Plan Annexes (2010)

Chatham County Pre-Disaster Hazard Mitigation Plan (2009)

#### **Darien**

Partial Update to Joint County/City Comprehensive Plan (2008)

McIntosh County - City of Darien Joint Hazard Mitigation Plan Update (2010-2015)

#### **Folkston**

Joint Charlton County 2030 Comprehensive Plan - Community Agenda

<u>Charlton County, Georgia pre-Disaster Mitigation Plan (2007-2012):</u> Includes the Cities of Folkston and Homeland.

#### **Garden City**

Comprehensive Plan – Community Agenda (2008-2028)

Short Term Work Program (2011-2016)

<u>Hazard Identification, Risk Assessment and Vulnerability: Chatham County Multi-Jurisdiction Pre-Disaster Hazard Mitigation Plan Annexes (2010)</u>

Chatham County Pre-Disaster Hazard Mitigation Plan (2009)

### Guyton

Joint Comprehensive Plan - Community Agenda (2009-2019)

## Hoboken

Joint Comprehensive Plan - Community Agenda (2006-2026)

## Homeland

Joint Charlton County 2030 Comprehensive Plan - Community Agenda

<u>Charlton County, Georgia pre-Disaster Mitigation Plan (2007-2012)</u>: Includes Charlton County and the Cities of Folkston and Homeland.

## Jekyll Island

<u>Conservation Plan (2011)</u>: The intent of the Plan is to create a framework for protecting and managing the natural resources of Jekyll Island. The Plan names sea level change as one of the ecological threats and stresses pressuring natural resources on the Island.

Glynn County Comprehensive Plan Update - Community Agenda (2008-2018)

Joint Comprehensive Multi-Hazard Mitigation Plan Hazard Mitigation Plan

## Jesup

Wayne County Joint Comprehensive Plan - Community Agenda (2010-2020)

## Kingsland

Joint Comprehensive Plan - Community Agenda (2008-2018)

Camden County Joint Hazard Mitigation Plan Update (2010-2015)

#### Ludowici

Comprehensive Plan - Natural and Cultural Resources (2005-2025)

## Nahunta

Joint Comprehensive Plan - Community Agenda (2006-2026)

### **Odum**

Wayne County Joint Comprehensive Plan - Community Agenda (2010-2020)

### **Pembroke**

Joint Comprehensive Plan – Community Agenda (2008-2018)

#### **Pooler**

City of Pooler Comprehensive Plan – Natural and Historic Resources (1993-2013)

<u>City of Pooler Comprehensive Plan – Partial Update (2008)</u>

City of Pooler Short Term Work Program (2012 – 2016)

<u>Hazard Identification</u>, <u>Risk Assessment and Vulnerability: Chatham County Multi-Jurisdiction Pre-</u> <u>Disaster Hazard Mitigation Plan Annexes (2010)</u>

Chatham County Pre-Disaster Hazard Mitigation Plan (2009)

#### **Port Wentworth**

City of Port Wentworth Comprehensive Plan - Community Agenda (2008-2028)

<u>Hazard Identification, Risk Assessment and Vulnerability: Chatham County Multi-Jurisdiction Pre-Disaster Hazard Mitigation Plan Annexes (2010)</u>

Chatham County Pre-Disaster Hazard Mitigation Plan (2009)

## Riceboro

Consolidated Comprehensive Plan 2030 - Community Agenda

<u>Liberty County Multi-Jurisdictional Hazard Mitigation Plan (2011)</u>

#### **Richmond Hill**

<u>Joint Comprehensive Plan – Community Agenda (2008-2018)</u>

## Rincon

Joint Comprehensive Plan - Community Agenda (2009-2019)

#### Savannah

Chatham-Savannah Comprehensive Plan - Community Agenda (2006-2033)

Short Term Work Program (2011)

<u>Hazard Identification, Risk Assessment and Vulnerability: Chatham County Multi-Jurisdiction Pre-Disaster Hazard Mitigation Plan Annexes (2010)</u>

Chatham County Pre-Disaster Hazard Mitigation Plan (2009)

#### Screven

Wayne County Joint Comprehensive Plan - Community Agenda (2010-2020)

#### **Springfield**

Joint Comprehensive Plan - Community Agenda (2009-2019)

#### St. Marys

Joint Comprehensive Plan - Community Agenda (2008-2018)

Camden County Joint Hazard Mitigation Plan Update (2010-2015)

## **Thunderbolt**

Comprehensive Plan for the City of Thunderbolt – Natural and Historic Resources (1992-2016)

Town of Thunderbolt Comprehensive Plan Update (2008)

Short-Term Work Program (2008 - 2011)

<u>Hazard Identification, Risk Assessment and Vulnerability: Chatham County Multi-Jurisdiction Pre-Disaster Hazard Mitigation Plan Annexes (2010)</u>

Chatham County Pre-Disaster Hazard Mitigation Plan (2009)

## **Tybee Island**

Tybee Island Master Plan - Community Agenda (2008-2028)

Short Term Work Program (2011)

<u>Hazard Identification, Risk Assessment and Vulnerability: Chatham County Multi-Jurisdiction Pre-Disaster Hazard Mitigation Plan Annexes (2010)</u>

Chatham County Pre-Disaster Hazard Mitigation Plan (2009)

## Vernonburg

Comprehensive Plan (2009-2019) (minimal level)

### Walthourville

Consolidated Comprehensive Plan 2030 - Community Agenda

Liberty County Multi-Jurisdictional Hazard Mitigation Plan (2011)

#### Woodbine

Joint Comprehensive Plan - Community Agenda (2008-2018)

Camden County Joint Hazard Mitigation Plan Update (2010-2015)