



Fast Facts

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Services provided by marshes are estimated to be worth more than \$14,000 an acre annually, equivalent to \$5.6 billion a year for Georgia's 400,000 acres of marsh.

The value of coastal development at risk from flooding and storm surge has climbed by many billions of dollars in the past several decades.

Marshes provide safeguards important to owners of this valuable coastal property, but these natural buffers are under increasing threat.

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Improve Tidal Marsh Protection

What's at Stake?

Georgia's valuable and naturally productive tidal marshes are only partially protected by the state's Coastal Marshlands Protection Act (CMPA). Marshes provide important services to Georgians, including water filtration, protection of property from flooding, and fishery habitat. These benefits are estimated to be worth more than \$14,000 an acre annually, equivalent to \$5.6 billion a year for Georgia's 400,000 acres of marsh.

The health of marshes is under threat from several trends not addressed by the Marsh Act. First, improperly regulated coastal development contributes to increased stormwater runoff and erosion of upland areas. Drainage ditches and tidal creeks carry eroded sediments and increased freshwater into marshes where they damage marsh vegetation.

Second, rising sea level and extreme weather trends linked to climate change impose unprecedented stresses that may reduce the area and productivity of tidal marshes. As sea elevation rises, the ocean's edge of Georgia's marsh will move westward, but the landward boundary is often constrained by highways, buildings, and other hard structures. Unless landward constraints are removed or open areas allowing marsh migration are provided, some marshlands and the services they provide will be lost. Many of these same limiting features also present increasing vulnerability to tropical storm damage as sea level rises; their removal may well prevent threats to neighboring properties.

Likewise, with extended periods of drought caused by weather extremes, tidal marshes will be deprived of freshwater flowing downstream, which is essential to the proper salinity balance in inter-tidal areas. Such destructive impacts are worsened by extensive ditching of timberlands throughout the coastal plain of Georgia, which severely compromises the ability of freshwater wetlands to replenish water in tidal areas during droughts.

Challenges

Any attempts to improve protection of coastal marshes are likely to be opposed by many developers because they will be seen as restricting the profitability of making land use more intensive. The perceived economic benefit of development will be used as the basis for objecting to government controls to prevent marsh loss. In reality, the economic benefits of marshes far exceed any such constraints on profit – it is a question of long term public and investor benefit versus speculative short term private gain.

Next Steps

- Legislators should create a study committee to evaluate stormwater impacts to marsh resources and the coast and recommend a course of action.
- Provide the Department of Natural Resources with statutory authority and the duty to analyze all of the potential environmental impacts any project for which a CMPA permit has been sought, including upland impacts.
- Create state programs to offer targeted incentives for property owners that will allow recovery of freshwater wetlands functions in coastal plain locations to mitigate the drought and flood effects on the coastal salt marsh. Incentives could be in the form of tax credits, tax deferrals, and/or technical assistance in land management.
- Adopt a comprehensive state plan to reduce tropical storm vulnerability and to accommodate marsh migration. The plan could be funded by surcharges on property and casualty insurance premiums and through tax incentives for property owners. Protective criteria for state projects/permits related to transportation, energy and water utility infrastructure need to be devised and implemented.