Coastal Georgia

Development Rates, Patterns, and Impacts

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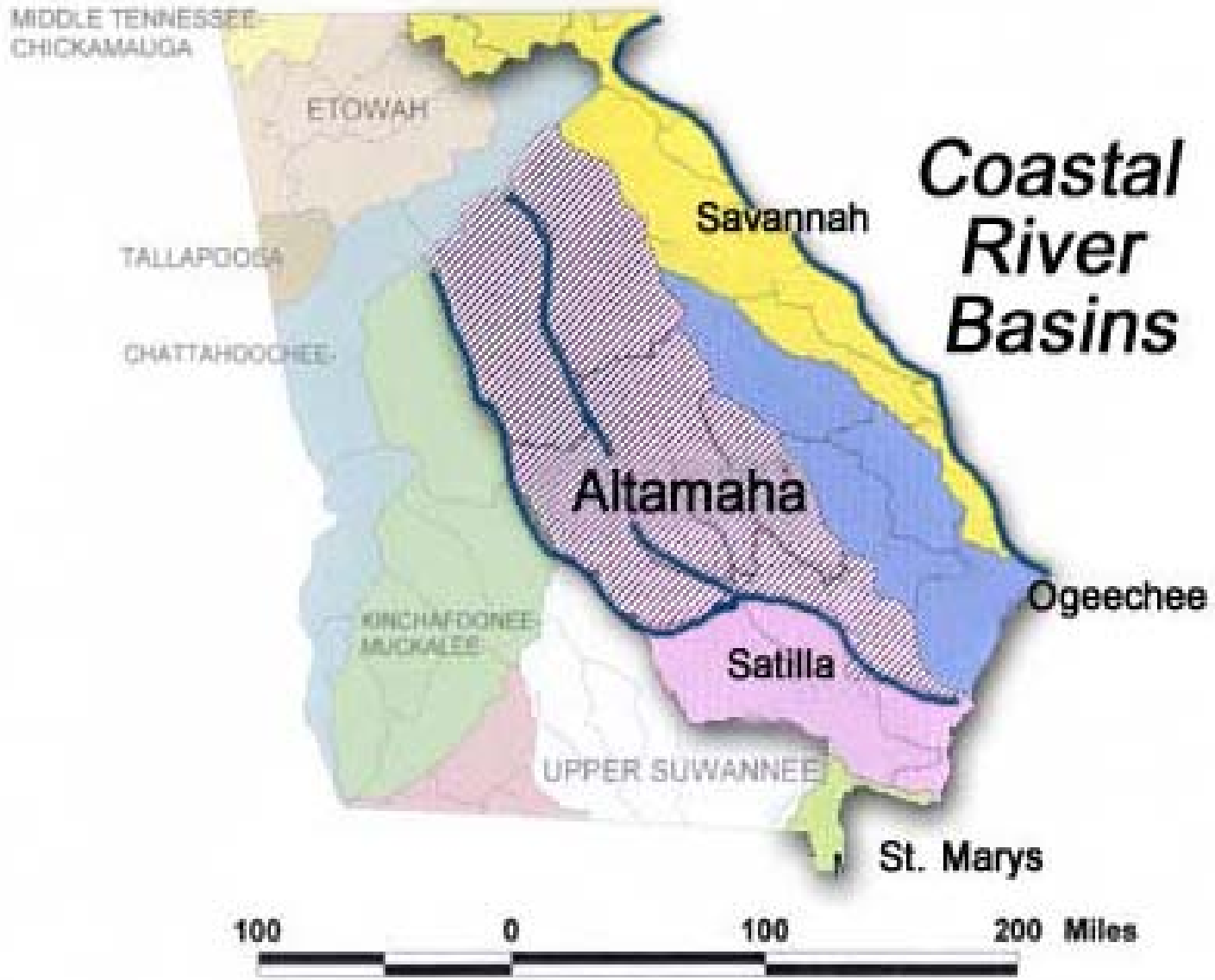
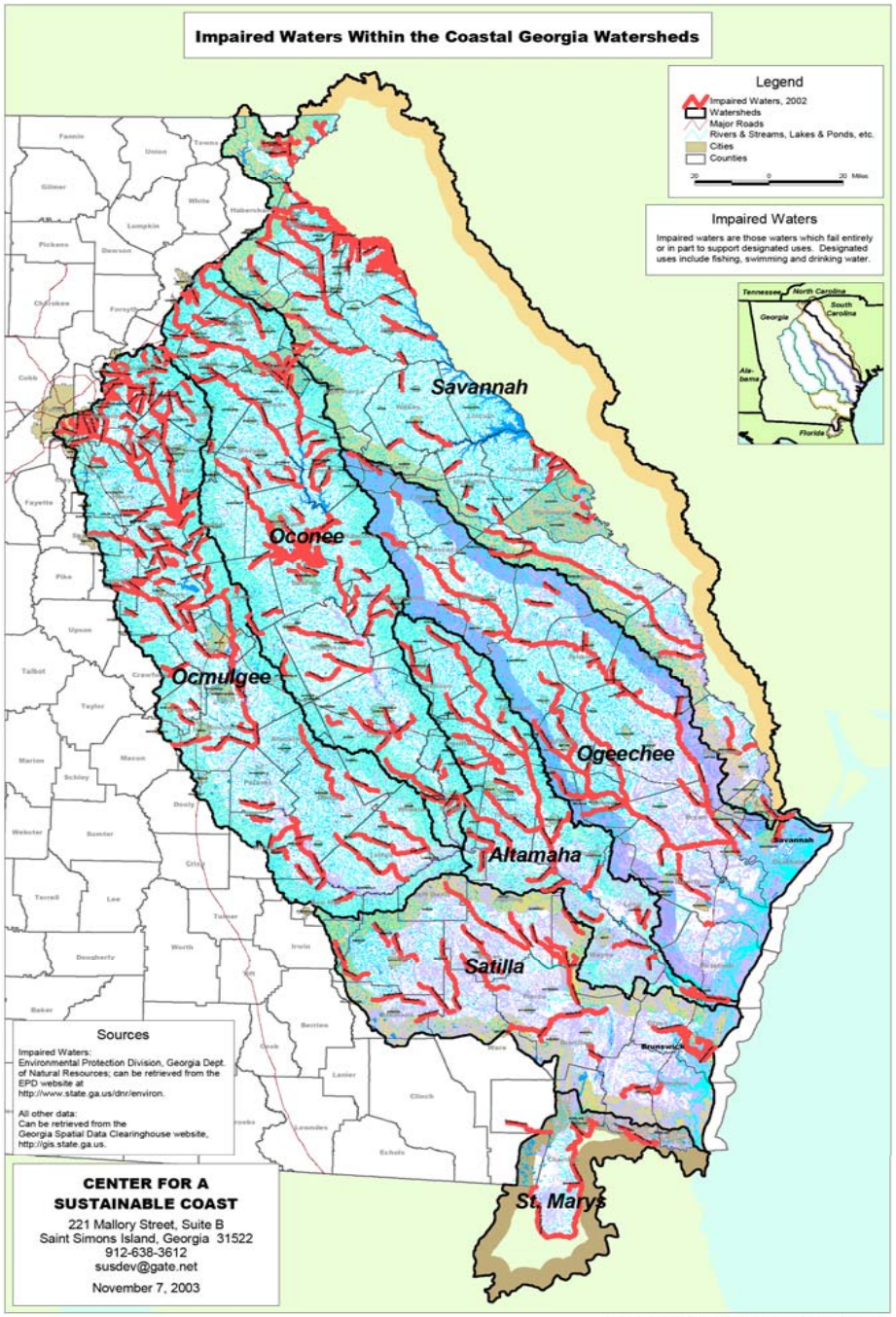
Coastal Georgia Development Rates, Patterns & Impacts





Funded in part by a grant from the Savannah Presbytery

Barrier Islands

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Rates

•Population of the six coastal counties will double to more than a million by 2040.

•In the past five years, projects with a total of more than 160,000 housing units have been approved as major "developments of regional impact" (DRIs). This translates to about 80,000 gross acres, including many freshwater wetlands.

•An uncalculated but large number of additional platted lots remain undeveloped and approved for developed uses – in the tens of thousands of acres – in small projects.

• As a result, enough land is already approved for subdividing or platted to accommodate growth through at least 2040.

• Even so, it is likely that rampant land speculation will continue when the market recovers, boosted by state infrastructure grants & loans.

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Patterns

• The highest, most suitable land was developed first. Many areas being proposed for development are **flood-prone and poorly drained,** including extensive freshwater wetlands. Many tracts prepared for development were previously used for commercial forestry.

• Highest market value is for land closest to the marshes and shorelines (along rivers, creeks, and ocean) with **greatest risk from flooding and storm surge,** continuing to attract high-end home-buyers and land speculators.

• Due to land costs in the coastal counties, **many workers now live in the adjacent interior counties,** commuting daily to jobs along the coast – causing a sprawl effect.

• **A doubling of the area of impervious surface in proportion to population** (more than an 80% increase from1990 – 2005).

• **Paper companies, which own vast acreages of coastal lands, are selling large tracts for development,** in many cases to foreign investors. Many of these areas include drained freshwater wetlands.

Ocean shoreline residence in high-risk eroding storm surge area, Saint Simons Island

Photo courtesy of Patty McIntosh

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Dock proliferation, Chatham County

Source: *Applied Coastal Research Laboratory*

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Marsh hammock development

Photo courtesy of Patty McIntosh

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- 1,000-acre site:
  - 1,200 home sites
  - 2 marinas
  - 3 community docks
  - 17,500 linear feet of docking space
  - 92 individual docks

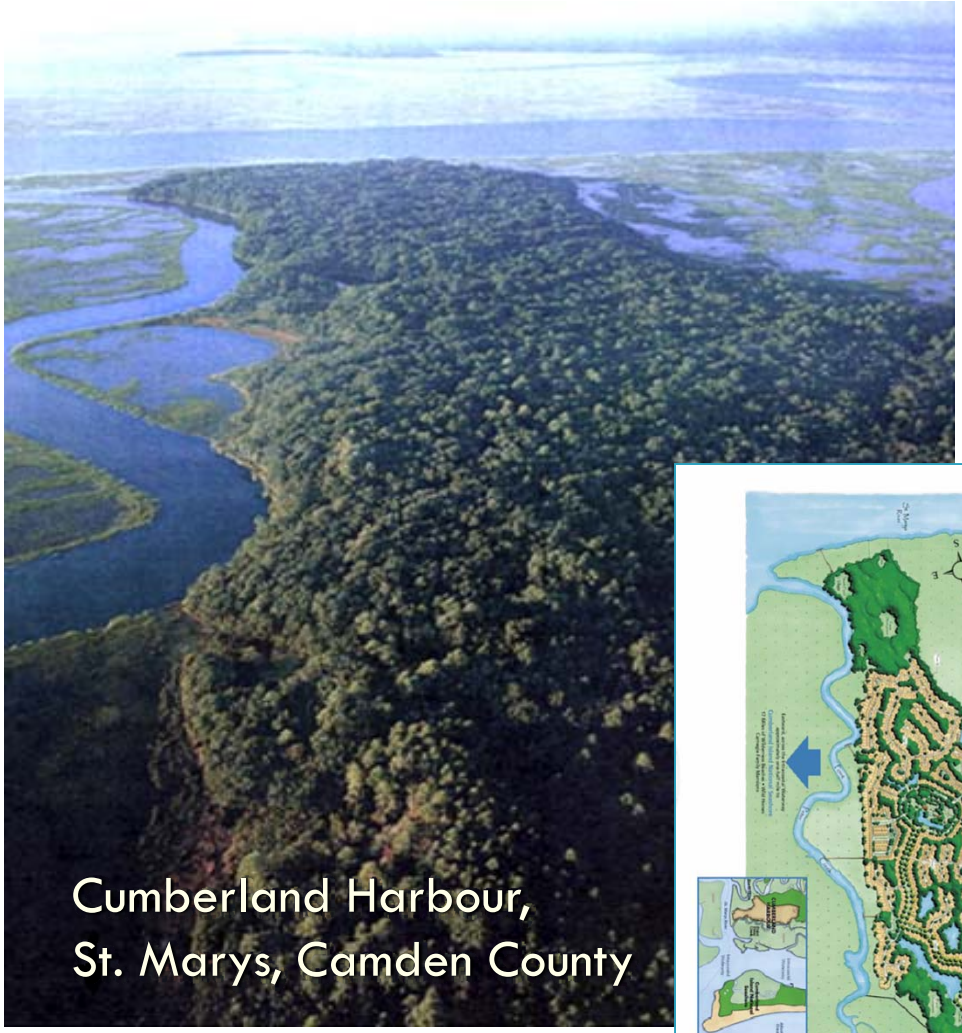

Photo and site map courtesy of Patty McIntosh

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Impacts

- Increased nutrient loading, primarily from stormwater runoff.
- Increased flooding of altered landscapes caused by filling low areas (many wetlands) and increased paving. **This is a cost burden to consumers, property owners and tax-payers.**
- Proliferation of docks, including some crossing 1,000 feet of marsh (or more).
- Until credit crash, rampant speculation, worsening land disturbance impacts.
- Marsh damage from runoff and marsh wrack accumulation.
- Loss of wildlife habitat, decline in aesthetic quality of view sheds.
- Magnified impacts of stream flow variations due to compromised wetlands.
- Disregard for climate change, increasing property at risk
- Disregard of cumulative impacts, resources being degraded

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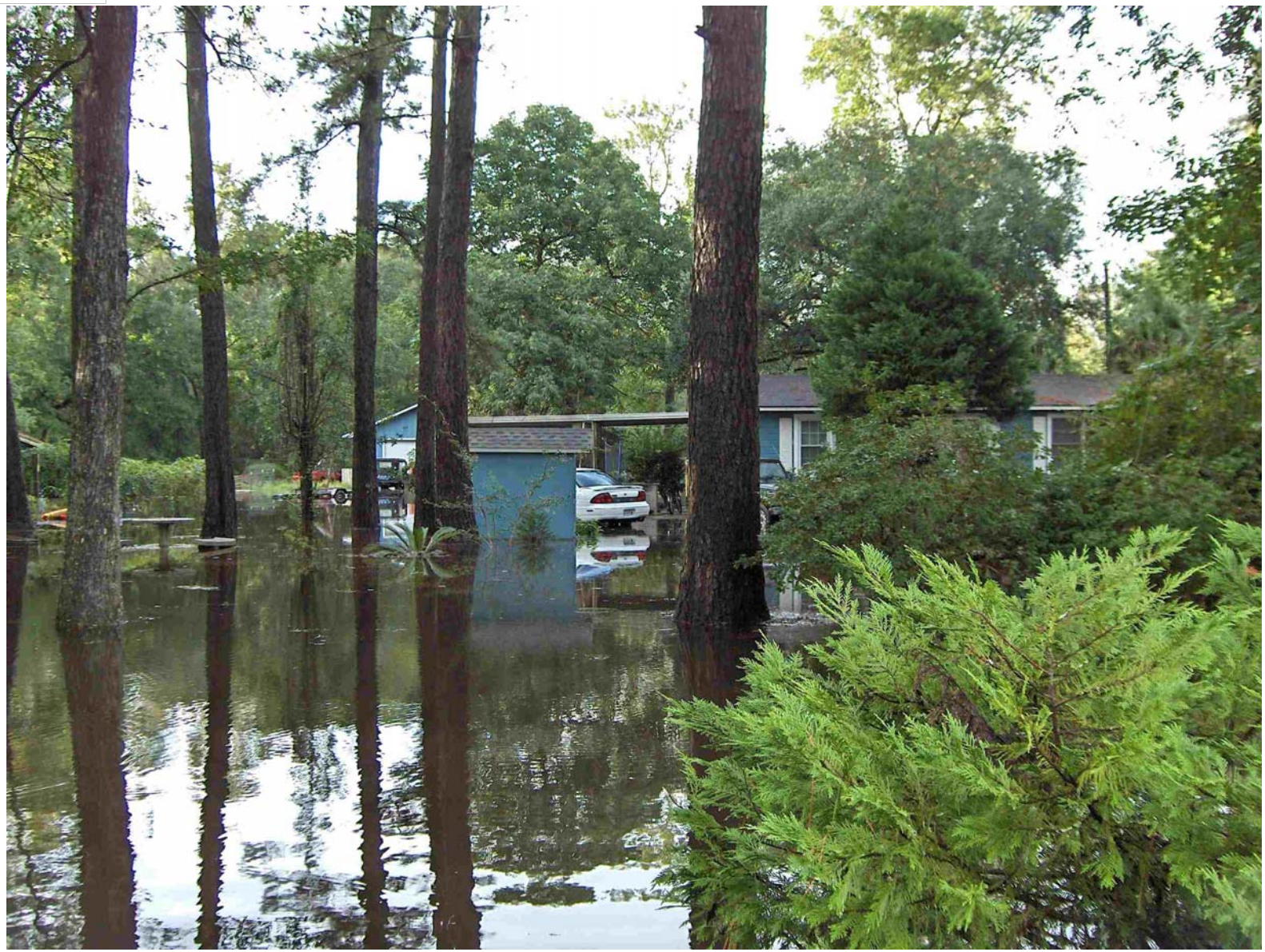

Flooding on a site created from filled wetlands, Glynn County

Source: Glynn Environmental Coalition

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Building site with saturated soils on cleared forested wetlands, Glynn County. (Note filling on right.)

Source: Georgia Land Trust

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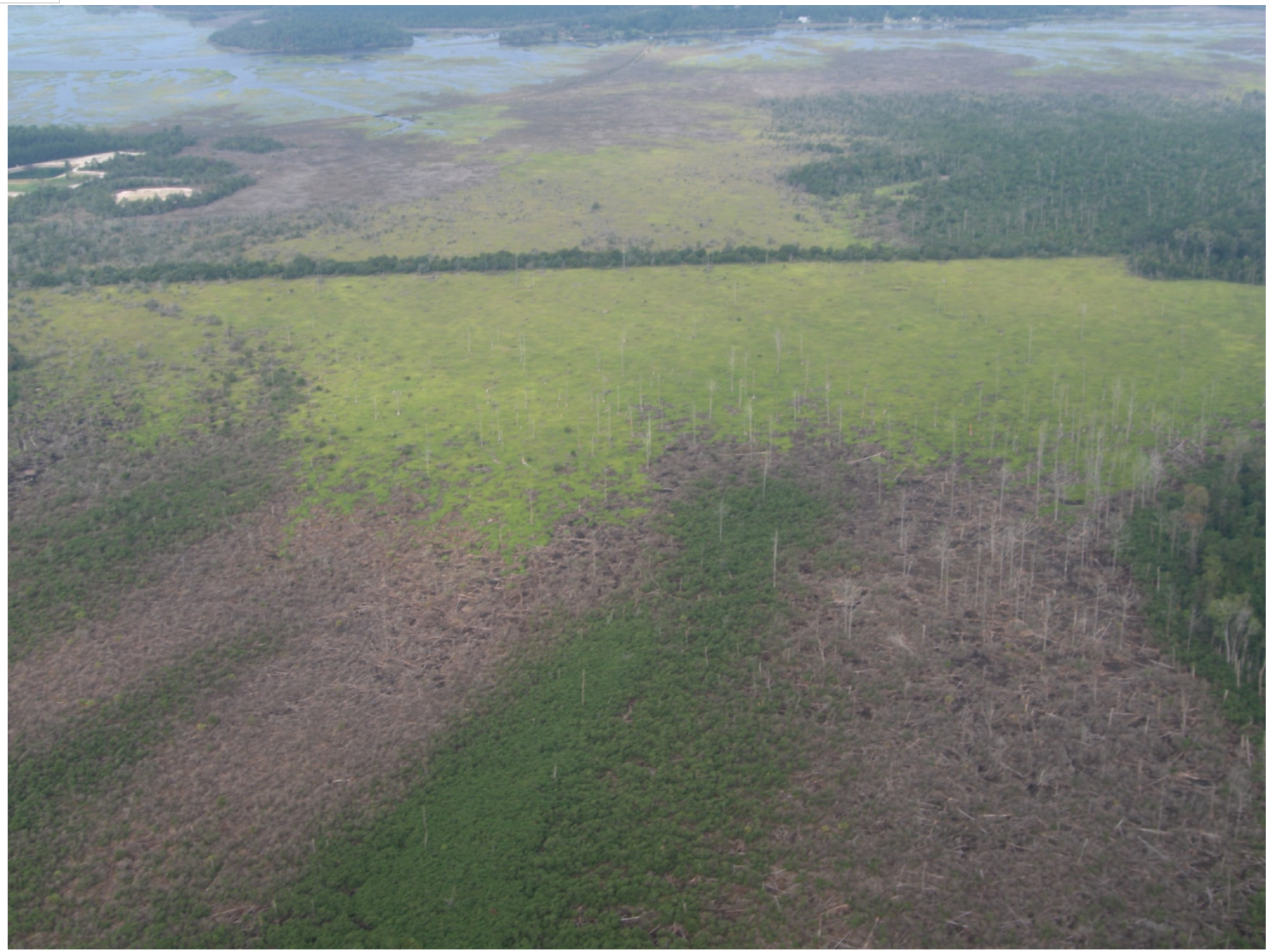
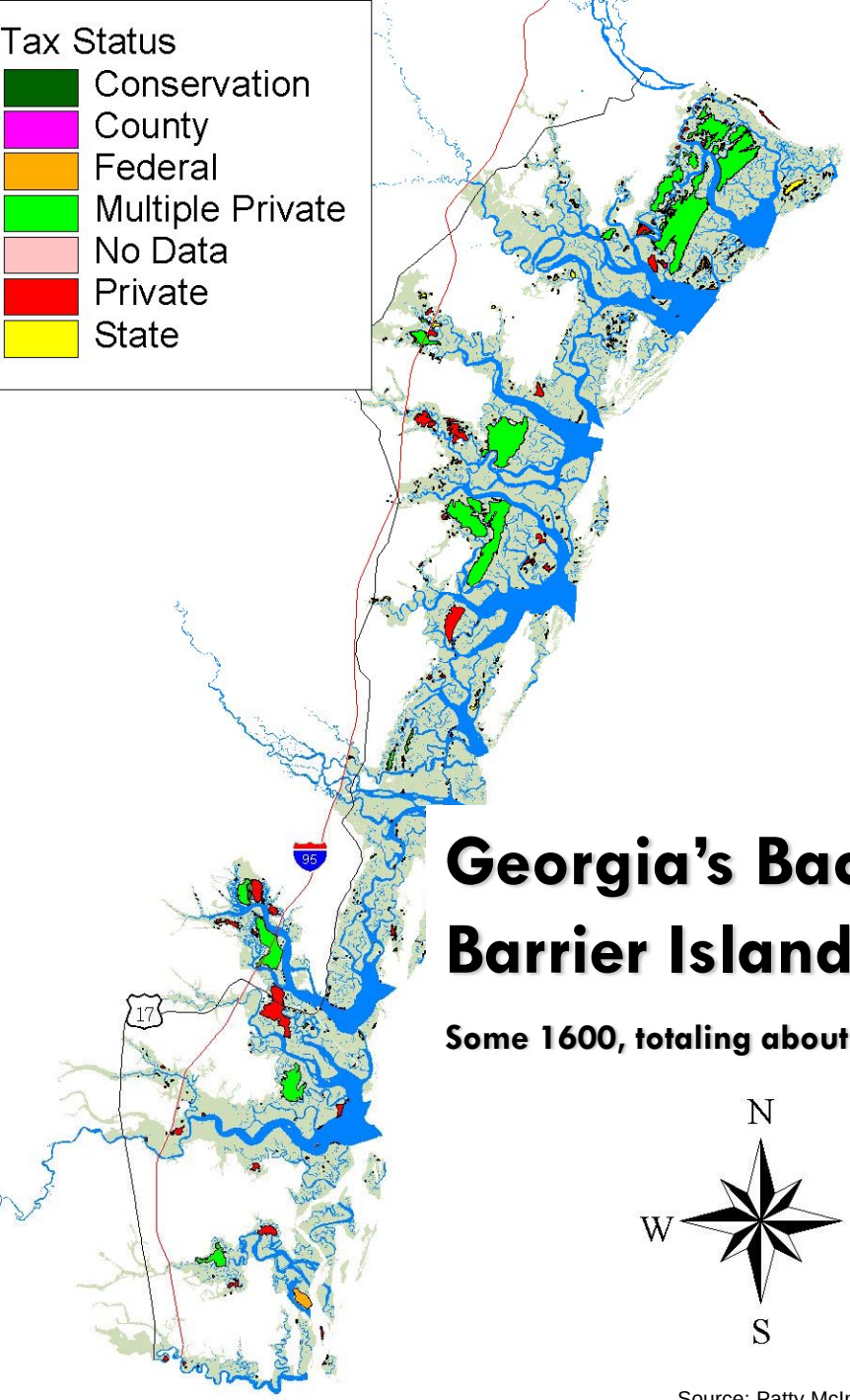


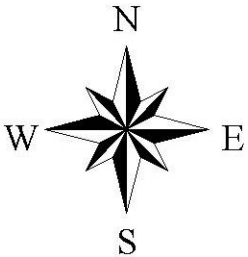
Destructive impacts of ditching that deprives forested wetlands of fresh water

Source: Glynn Environmental Coalition



Georgia's Back Barrier Islands

Some 1600, totaling about 50,000 acres



Source: Patty McIntosh

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Development of a coastal back-island (hammock) and bridge to it from Saint Simons Island(left) and unaltered hammock along coastal river.

Source: Patty McIntosh

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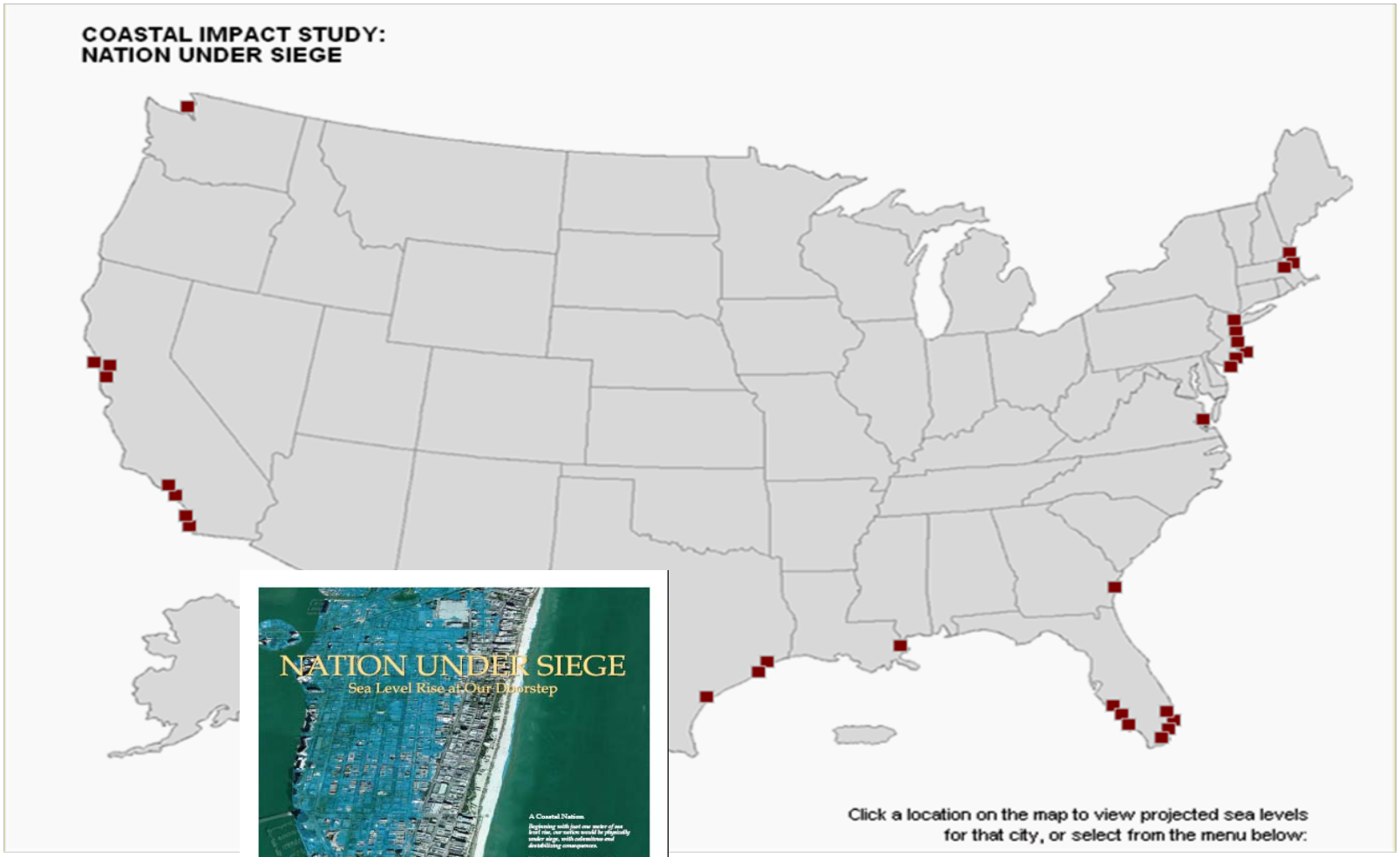

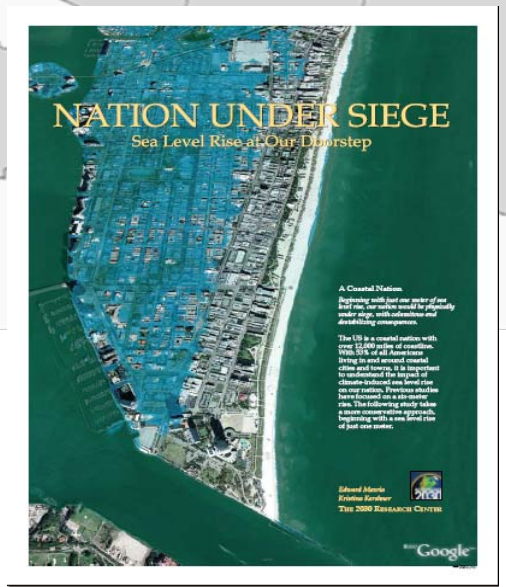

Depiction of potential flooding in Savannah caused by sea level rise in 2030, from *Nation Under Siege.*

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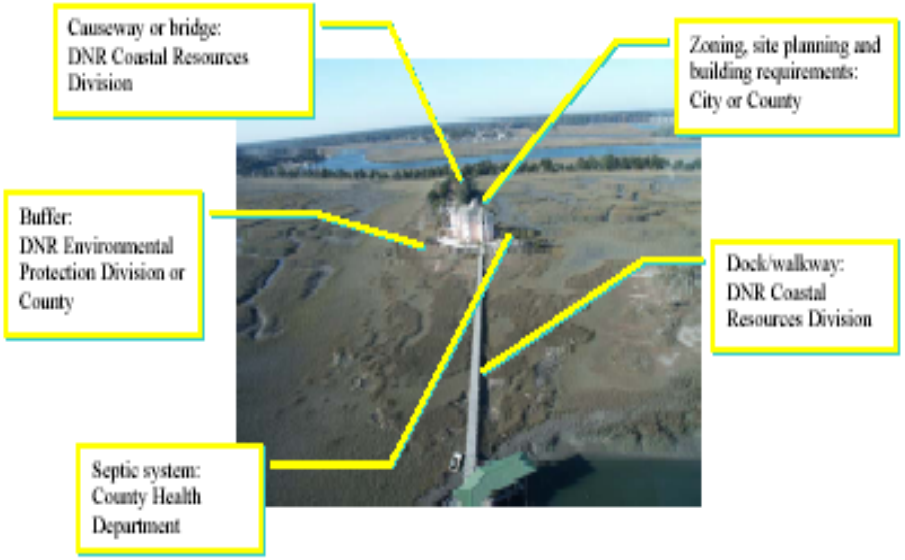

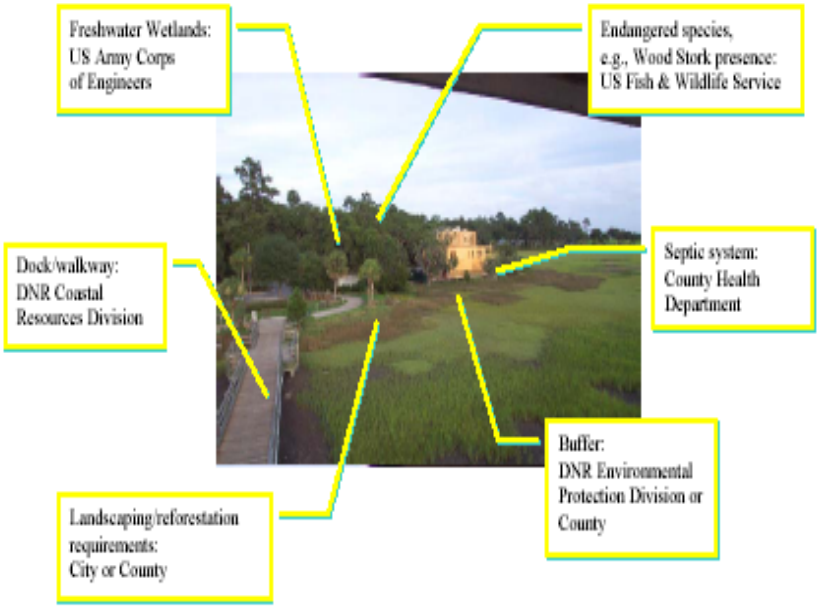

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Marsh degraded to mud-flat by long dock structure on Toms Creek in Chatham County.

Source: *Applied Coastal Research Laboratory*

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Long dock access across marsh

Source: *Applied Coastal Research Laboratory*

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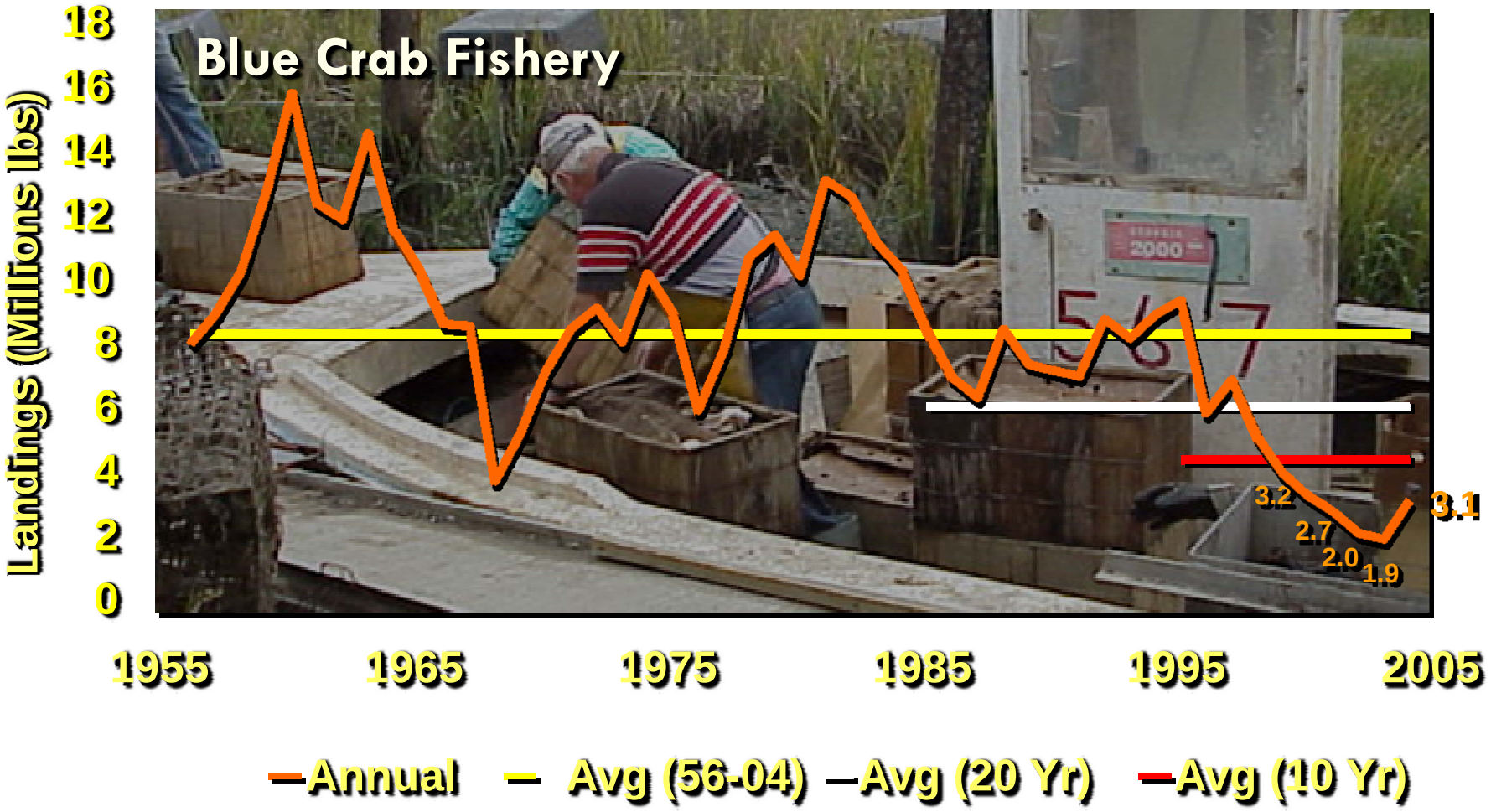

Source: DNR data graphed by Georgia Conservancy

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Summary of Proposed Remedies to Improve Coastal Management

Tidal Marshes	Freshwater Wetlands	Rivers & Estuaries	Climate Change	Development
Increase buffers, reduce variances				
Limit impervious surface to a maximum of 15% of watersheds, less on some sites based on analysis of environmental features and hydrology.			**Development state climate change action plan.**	**Locate new development within existing urban areas when possible, *avoiding* high-risk places – storm surge zones & floodplains.**
Replicate pre-development hydrology, monitor run-off at site level				
Eliminate regulatory review & compliance exemptions for state projects				
Expand marsh permit review period and use of enforceable conditions.	Protect all freshwater wetlands – no filling above one-tenth acre.	Implement hydrology assessment program by sub-watershed, restore compromised areas where possible.	**Integrate state policy framework for energy, water management, economic development and infrastructure**	**Require environmental assessment for all sites. Minimize landscape alteration, using natural features as 'green infrastructure.'**
Research, monitor, and control cumulative impacts of docks and coastal land uses.				
Improve Coastal Marshlands Protection Committee appointee qualifications and adopt performance standards.	Improve qualification requirements for appointees on the Board of Natural Resources and adopt performance standards.		**Adopt principles of adaptive management with explicit goals, performance criteria and review procedures.**	**Adopt state law requiring all infrastructure costs to be paid by development using it.** (No taxpayer subsidy of speculation & sprawl.)
Adopt rules clarifying criteria for issuing marsh permits	Increase budgeting to support sufficient staff to properly monitor NPDES and other regulations.		**Adopt incentives for compact site plans and mixed land uses to reduce vehicle dependency and sprawl**.	**Require new development to be justified by certified market demand**.
Hire staff with special expertise like hydrology				
Provide enhanced monitoring including site-specific data				
Adopt annual user fee for access to state waters and crossing tidal marshes & freshwater wetlands.			Adopt carbon fees.	Adopt impact fees.

Source: Center for a Sustainable Coast, 2010


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