GEORGIA
DEPARTMENT OF NATURAL RESOURCES
COASTAL RESOURCES DIVISION

Georgia Coastal Management Program

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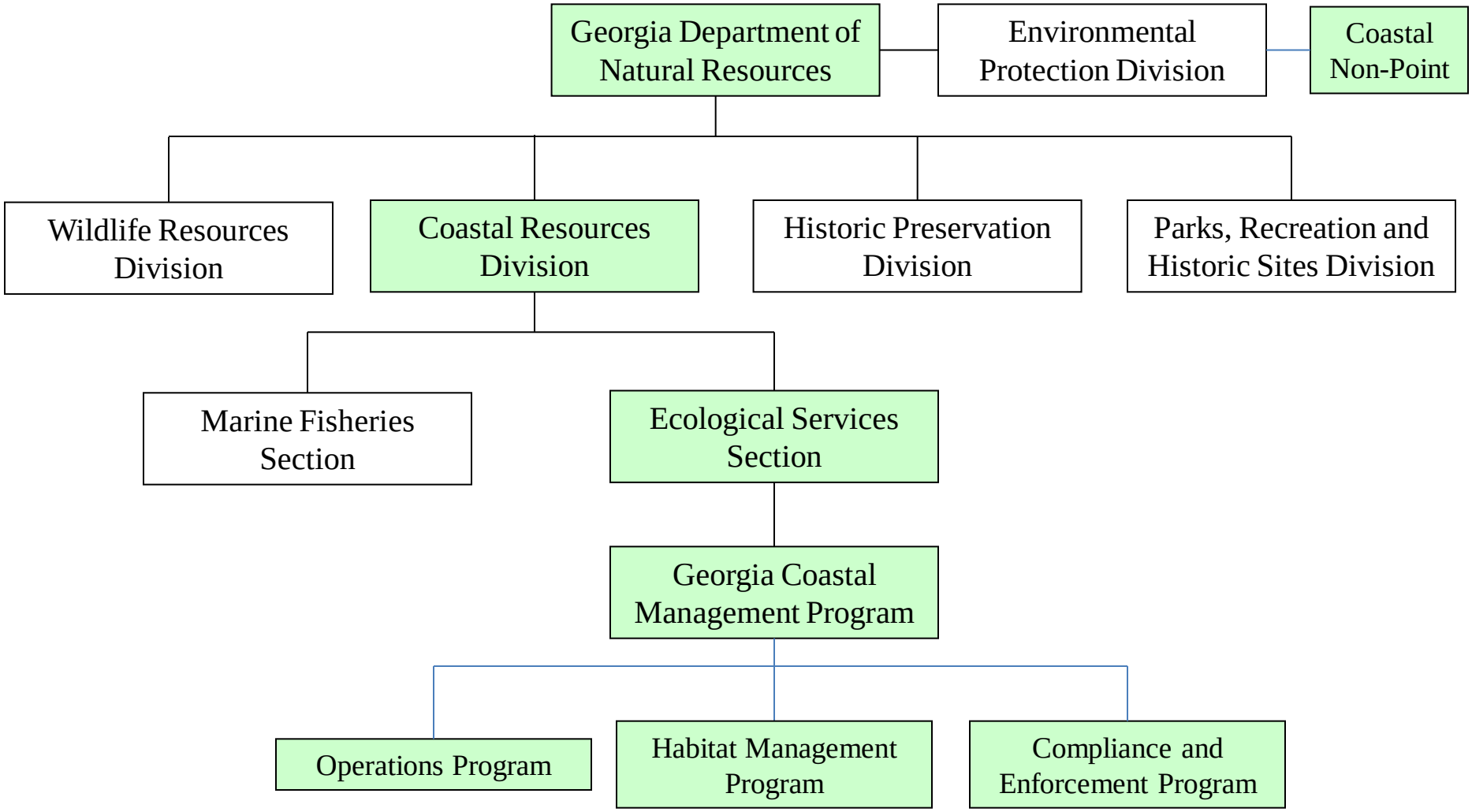
Georgia Department of Natural Resources



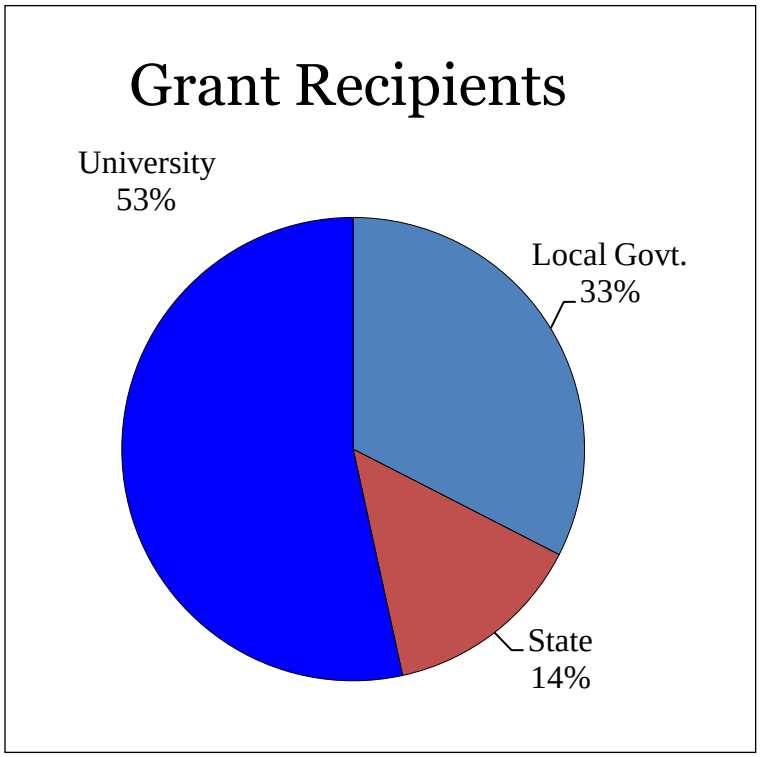
Georgia Coastal Management Program

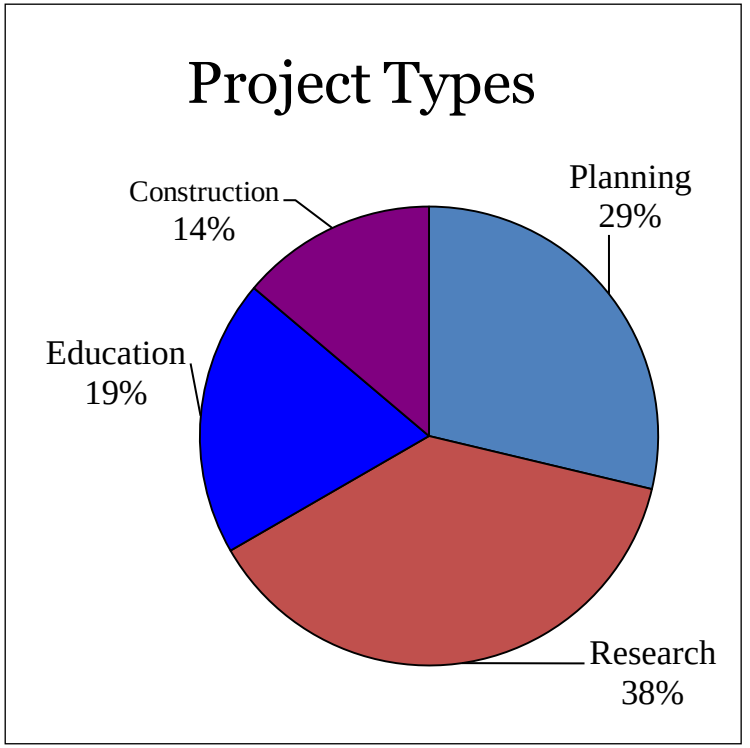
- Part of a federal-state Coastal Management Program partnership
- Receives about $2 million federal dollars each year:
  - Habitat Management Program
  - Compliance and Enforcement Program
  - Operations Program
    - Coastal Incentive Grants
    - Technical Assistance
    - Water Quality Monitoring

GCMP Service Area

Coastal Incentive Grant Program

Since 1998 335 projects have been funded for $14,570,000
More than $14,570,000 in match has been contributed by grant recipients





Technical Assistance

Direct Technical Assistance

- Providing 1-on-1 assistance to coastal communities on natural resource management-related issues

"Specialty Areas"

- Points of contact with expertise in particular Coastal Management priority areas:
  - Low Impact Development and Smart Growth
  - Public Access and Land Conservation
  - Coastal Hazards
  - Wetlands Restoration Program

Low Impact Development and Smart Growth

Kingsland Sustainable Community

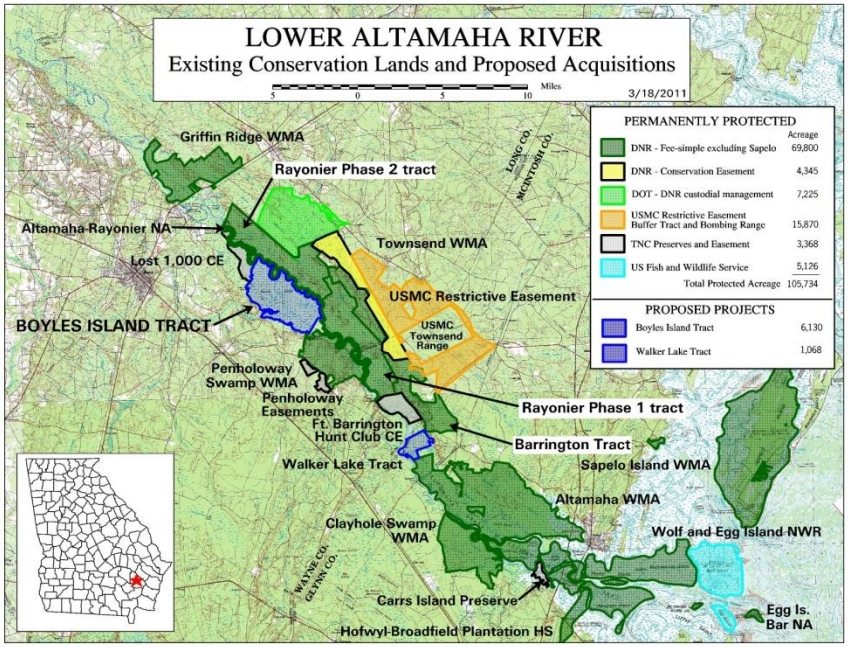
CRD Rain Garden

Public Access and Land Conservation

Riceboro Trail Site

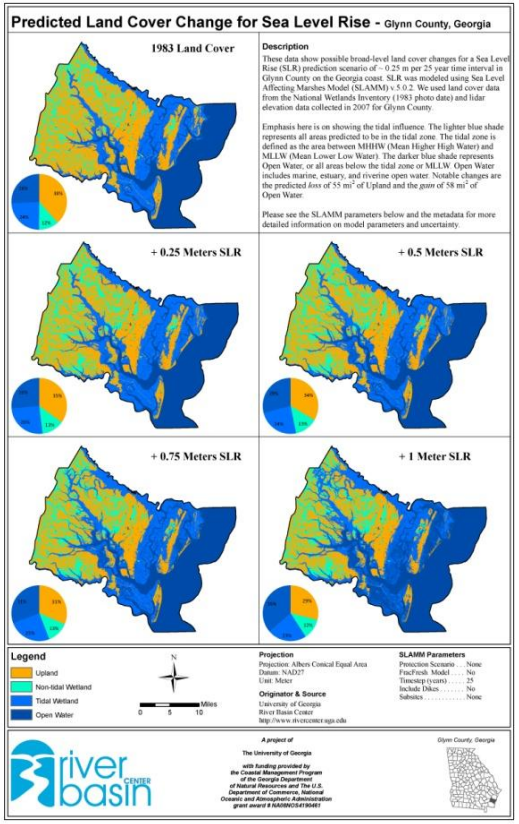
A view of the Historic Baptismal Site.

Coastal and Estuarine Land Conservation Program

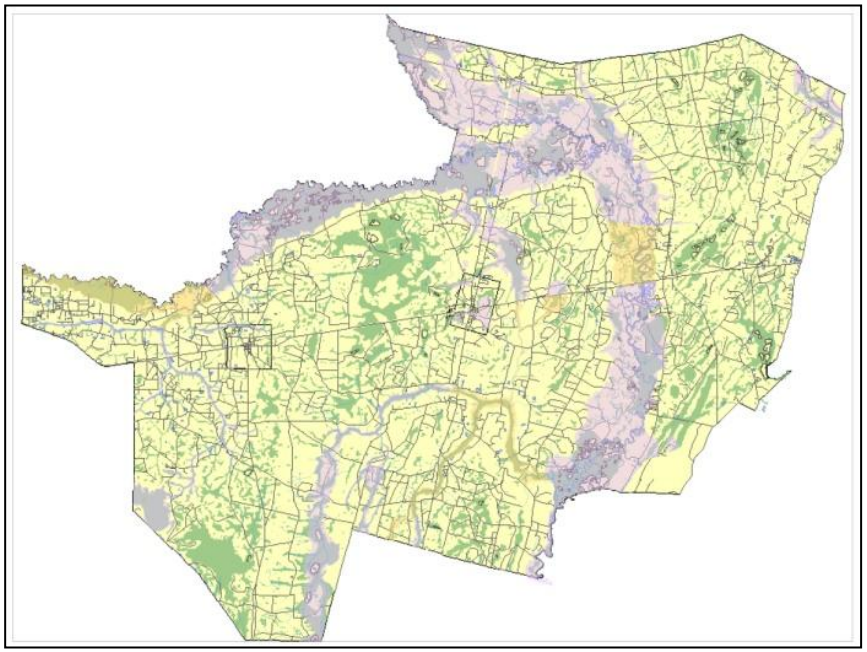


Coastal Hazards

Planning for Sea Level Rise



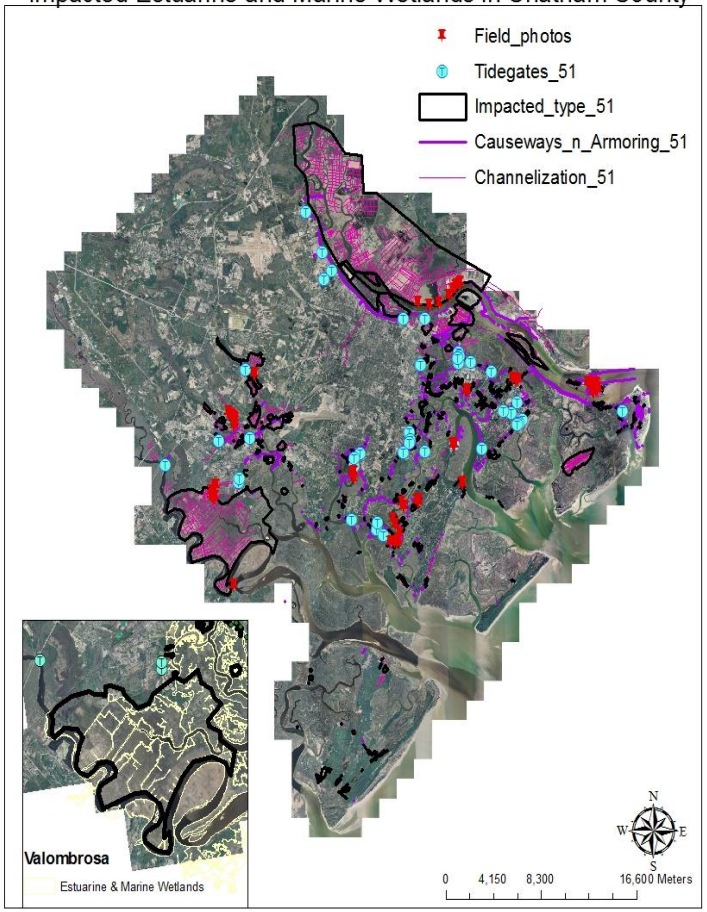
Brantley County Hazards



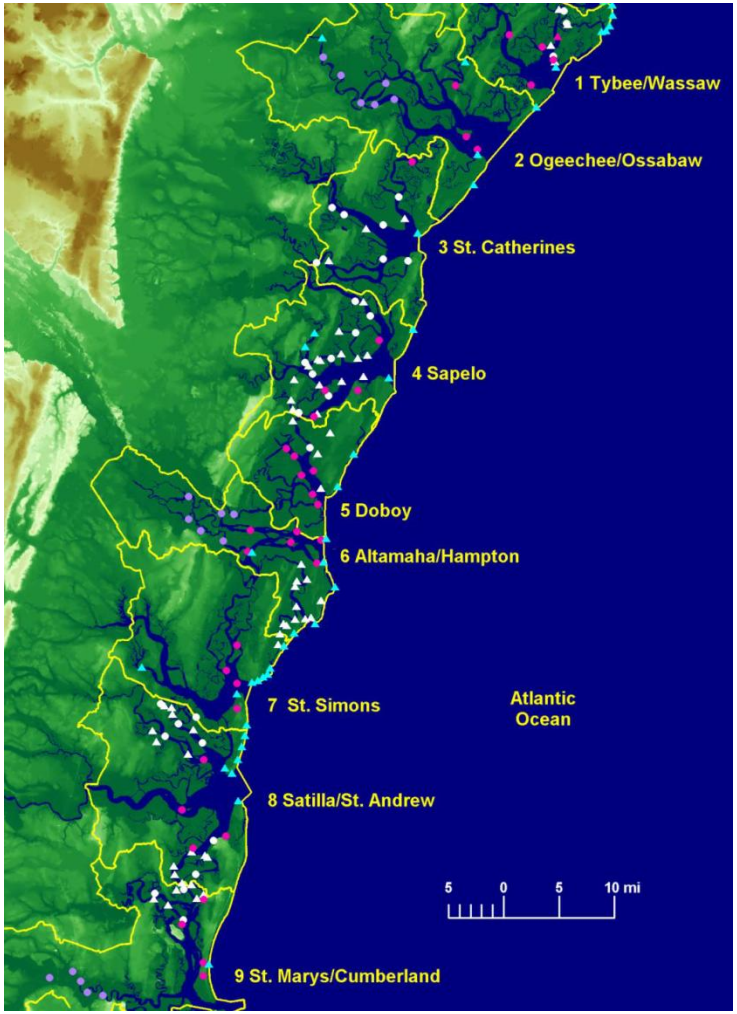
Wetlands Restoration Program

Monitoring Marsh Dieback

Impacted Estuarine and Marine Wetlands in Chatham County



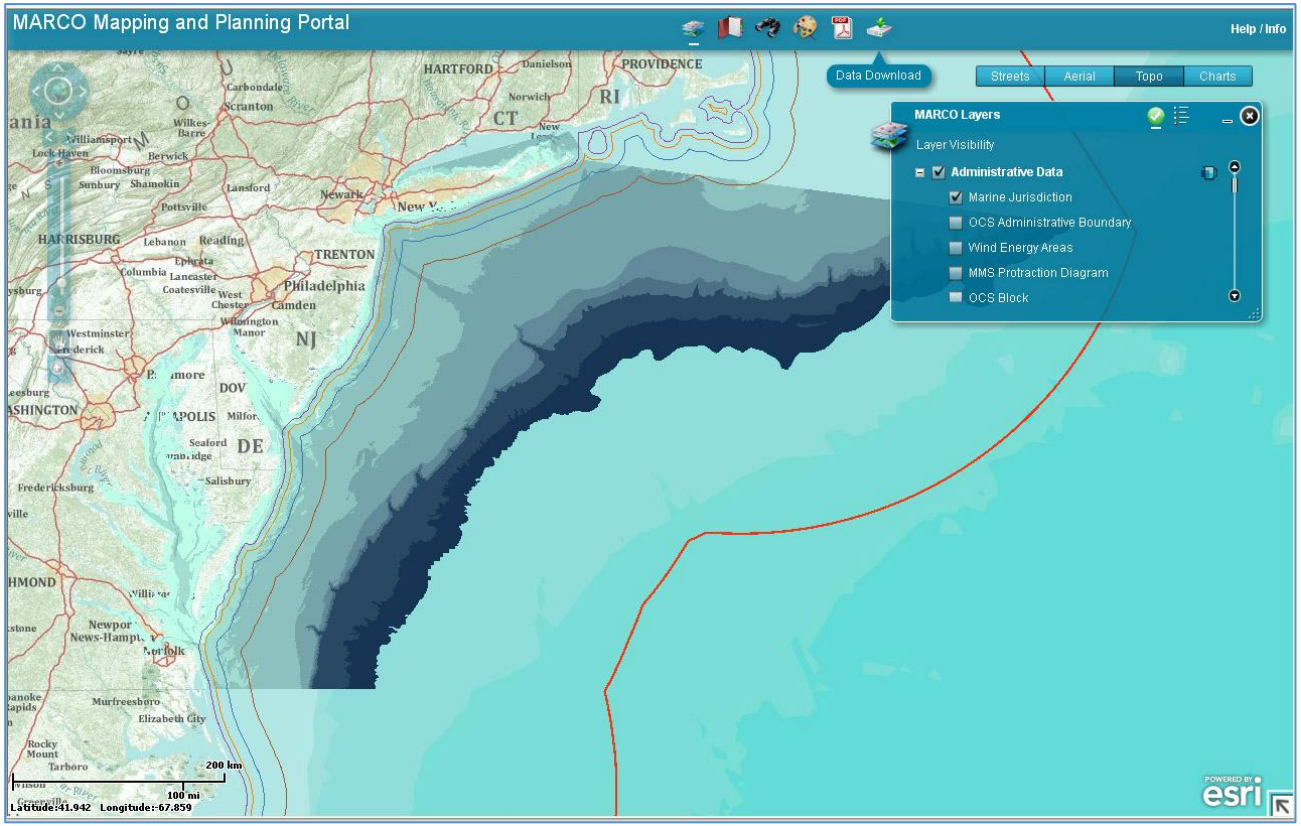
Water Quality Monitoring Programs



What Else is New for GCMP?

Ocean Resource Planning

(Example provided by: Mid-Atlantic Regional Council on the Oceans)



CRD Research Needs & Concerns

Ecological Services Section

Coastal Hazards

- Inundation modeling of increased storm water elevations, surge, etc.
- Study of the impacts of sea level rise on saltwater intrusion.
- Community Vulnerability Assessments.
- Economic cost of action vs. inaction related to coastal hazards.

Habitat

- Cumulative and secondary impacts from development.
- Tidal marsh restoration.
- Ecosystem services (value of saltmarshes).
- Innovative technologies /methodologies for dredge material disposal.
- Living shorelines/innovative technologies utilized for bank stabilization, considerate of sea level rise.
- Marsh dieback.
- Environmental and biological data related to health and/or status of Georgia's river drainage systems. Specific needs relate to habitat needs during early life stages of marine organisms.
- Carrying capacity of docks in small creeks and tributaries? Can a carrying capacity for creeks and small tributaries model be made?
- Geo-referenced mapping of all known Crown, Georgia State Grant, Georgia Legislative Easements, and Heritage Preserve Wetlands.

CRD Research Needs & Concerns

Ecological Services Section

Water and sediment quality/quantity

- Long-term effectiveness of LID techniques on stormwater/water quality and quantity.
- Bacterial transport – hydrology studies.
- How harmful to human health is fecal bacteria in beach waters?
- How can we better detect pathogens in beach waters?
- Correlations between DO levels and tannins in Georgia coastal rivers.
- Estuarine nutrient thresholds (EPD to set standards by 2014).
- Impacts of decreased fresh water inflow to estuaries.
- Effects of wetlands and land use practices on in-stream flows (at multiple scales from site to regional).
- Direct and indirect influences various coastal and near coast forestry activities have on the coastal waters of the state.
- Salinity profiles up to the freshwater interface for each major system.
- Sand budget studies for Georgia sea islands, including shoreline erosion and accretion history and trends.
- Beachfront shoreline change modeling/predictive ability considerate of natural and anthropogenic inputs.

CRD Research Needs & Concerns

Marine Fisheries Section

- Estimates and impact of recreational crabbing and shrimping in Georgia.
- Impact of disease on commercially and recreationally important species – specifically black gill disease in shrimp and *Hematodinium* in blue crabs.
- Status and trends in emerging/declining fisheries (cannonball jellyfish and whelk, respectively) as they relate to harvest, abundance, participation and ecological impact.
- Estimates of hooking mortality in the catch-and-release recreational fisheries.
- Complete knowledge of the life history of exploited estuarine and marine fishes indigenous to coastal Georgia.
- Characterization of bycatch in commercially and recreationally important fisheries.
- Evaluate the role of instream flow (and drought) as it relates to species abundance, estuarine productivity, and overall health of coastal ecosystems.
- Improve fishery assessments, with increased/coordinated fishery-dependent and fishery-independent monitoring/surveys regionwide.
- Identify critical habitats (spawning, nursery, etc) for commercially and recreationally important species (shrimp, blue crabs, red drum, spotted seatrout, Southern kingfish, sheepshead, Southern flounder, tripletail, etc).
- Development of a coastal Georgia Fisheries Habitat Plan.

CRD Research Needs & Concerns

Marine Fisheries Section (continued)

- Characterization/quantification of impacts to Essential and Critical fish habitats and fisheries and ecosystem productivity.
- Develop maps of intertidal oyster habitat, GIS layer.
- Enhance oyster restoration projects and evaluate their effectiveness.
- Assessment of Georgia's artificial reefs in terms of productivity, habitat, species utilization, and recreational usage.
- Improvement in artificial reef technology (eg., designed units, siting, deployment, configuration, and monitoring).
- Boating and fishing accessing needs for coastal Georgia.
- Economic impacts of saltwater fishing tournaments, artificial reefs, and the for-hire charter businesses.
- Explore the feasibility of marine aquaculture in coastal Georgia.
- Marine protected areas.
- Georgia's fishing fleet, what is the condition of the current fleet and future forecast with the reduction in working shorelines? Average age of vessel, sea worthiness, and where are the vessels originating from?

CRD Research Needs & Concerns

Management and communications: Suggestions for ways to improve communication between scientists and managers

- Revision of policies and permitting processes to accommodate emerging needs.
- Hold annual meeting to communicate resource manager's needs – before Sea Grant and CIG deadlines.
- Rapid response vs. emergent issues – need protocol to handle each of these.
- Better educate CAC members regarding coastwide research needs and priorities.
- Data coordination.
- Topic-specific education opportunities.

Georgia Coastal Management Program

For more information:

www.CoastalGaDNR.org

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