

South Atlantic Regional Plan



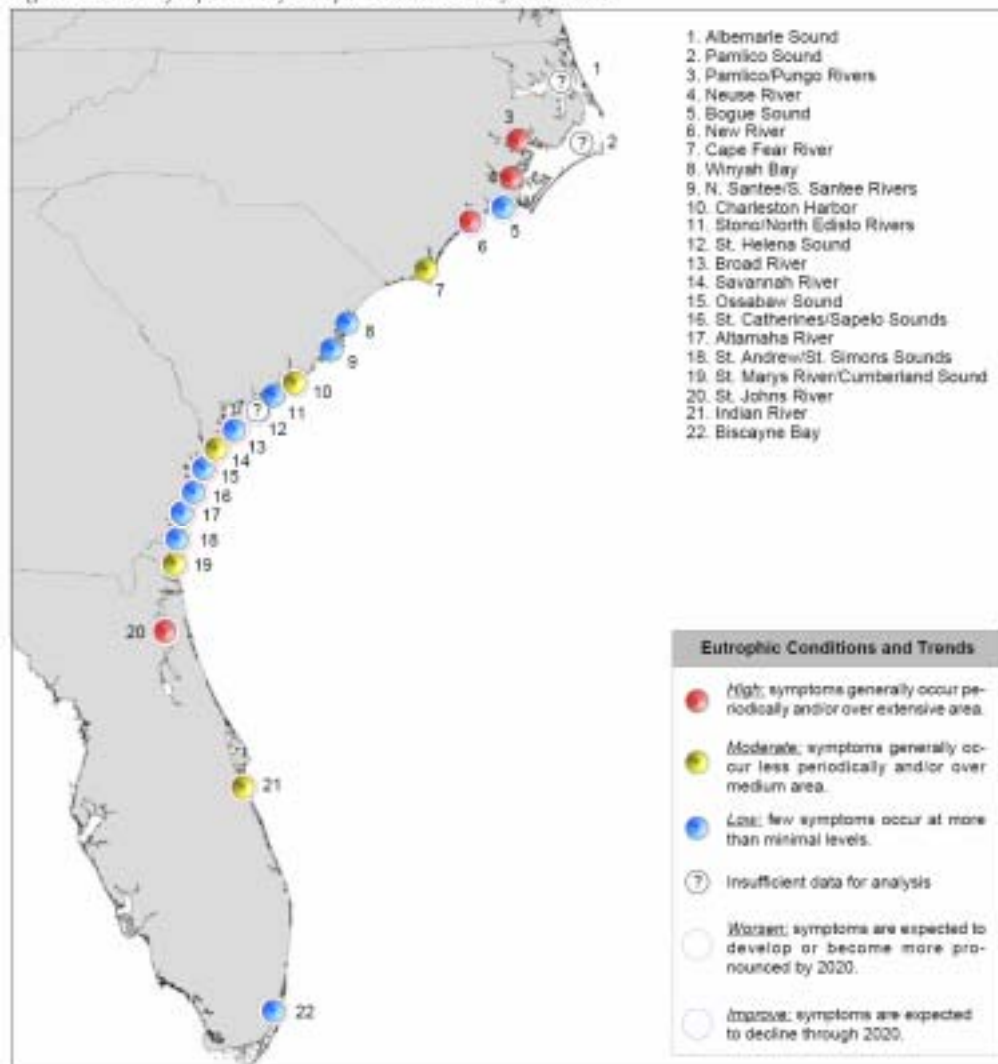
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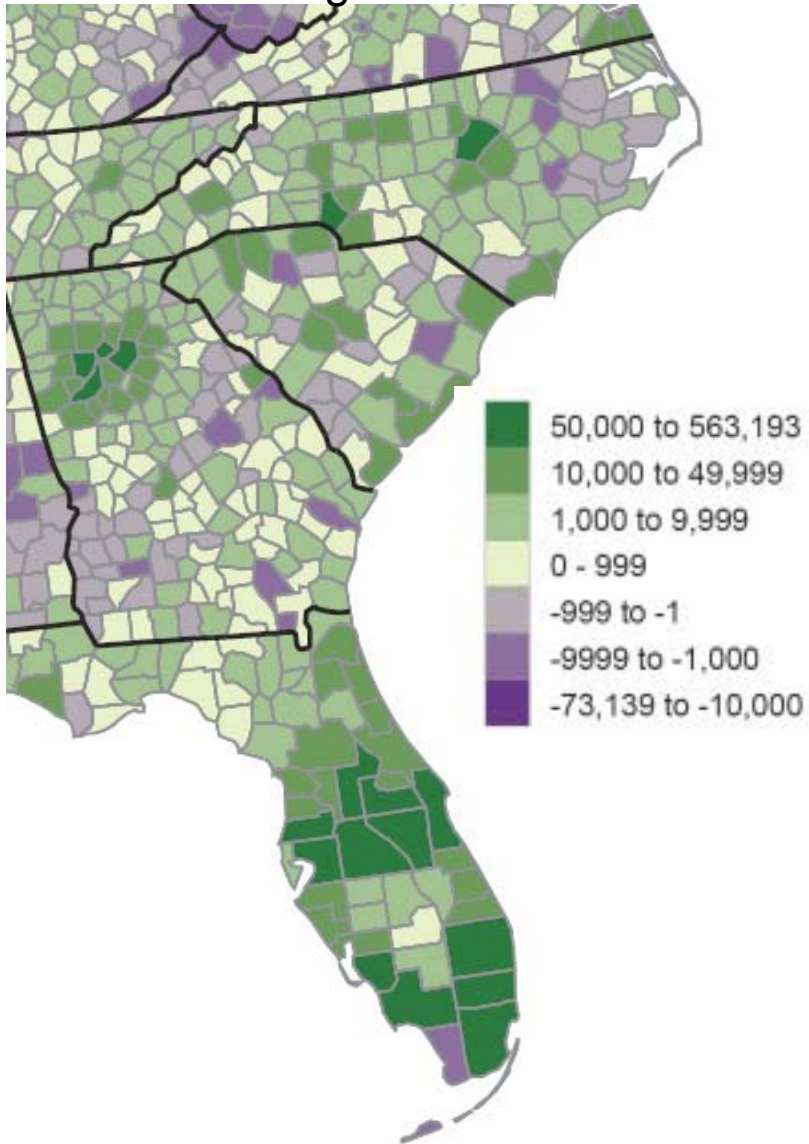
National Estuarine Eutrophication Assessment (1999)

Figure 21. Level of expression of eutrophic conditions and future trends

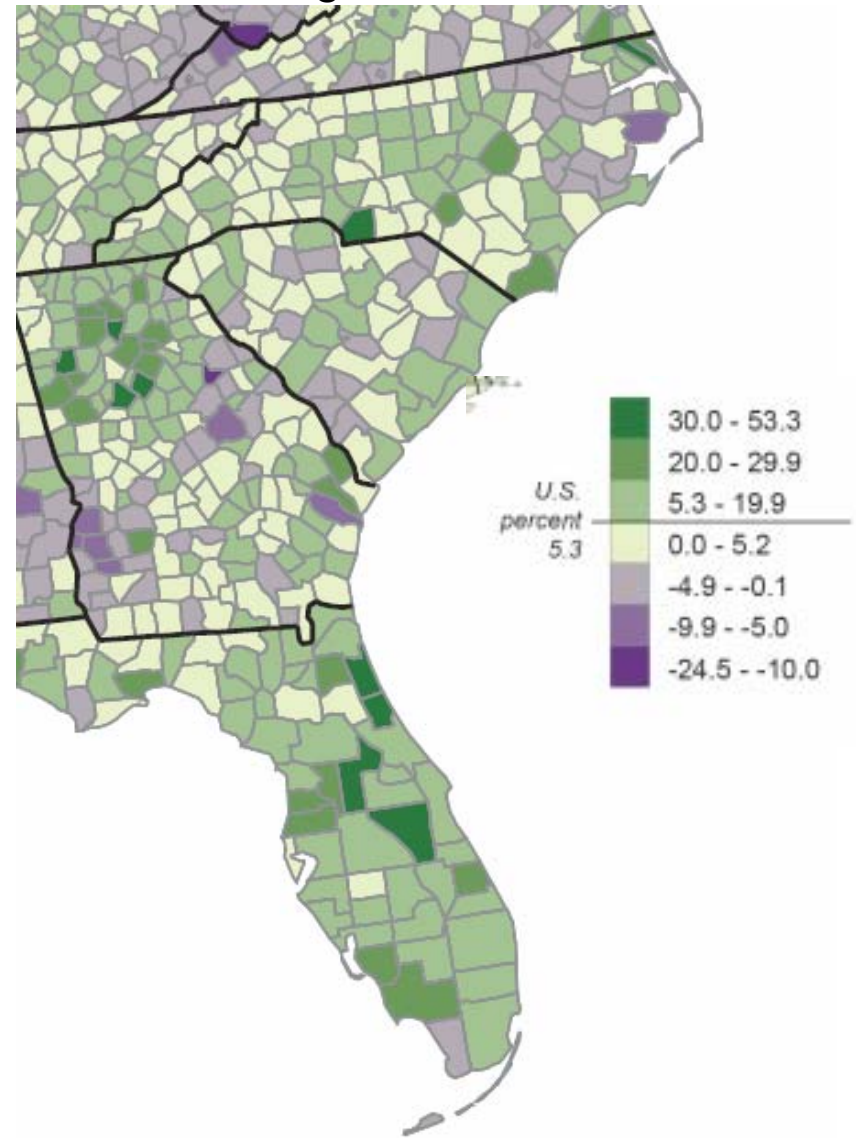


Population Growth (2000-2005)

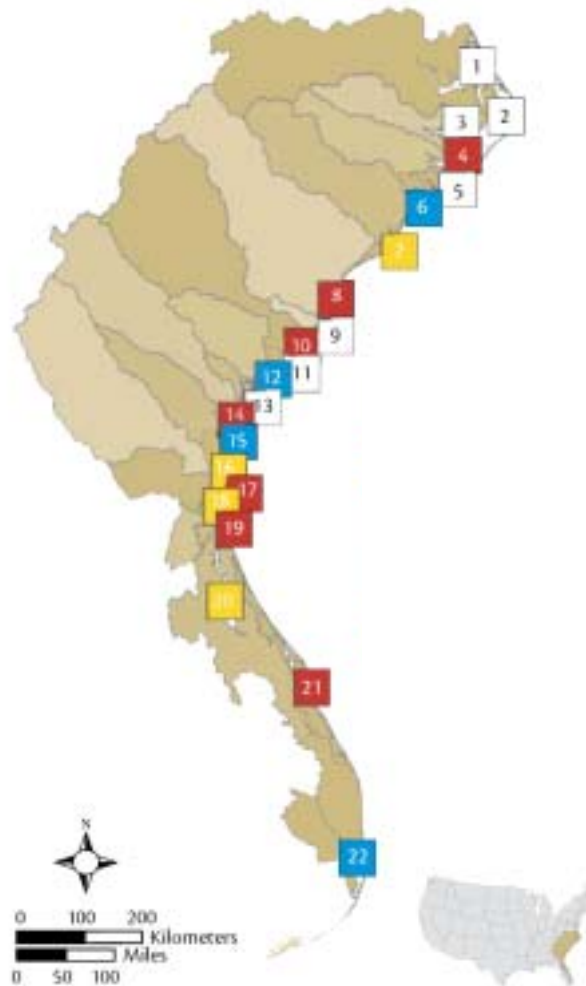
Numeric Change



Percent Change



NEEA Update: Influencing Factors (2004)



1. Albemarle Sound
2. Pamlico Sound
3. Pamlico/Pungo Rivers
4. Neuse River
5. Bogue Sound
6. New River
7. Cape Fear River
8. Winyah Bay
9. N. Santee/S. Santee Rivers
10. Charleston Harbor
11. Stono/North Edisto Rivers
12. St. Helena Sound
13. Broad River
14. Savannah River
15. Ossabaw Sound
16. St. Catherines/Sapelo Sounds
17. Altamaha River
18. St. Andrew/St. Simons Sounds
19. St. Marys River/Cumberland Sound
20. St. Johns River
21. Indian River
22. Biscayne Bay

Process

1. Inventory existing research plans
2. Identify top 10 research needs
3. Select priority issues
4. Develop an action plan
5. Promote coordination, collaboration and resource sharing
6. Ongoing education and outreach

National / International

Coastal Ocean Plan/ORPPIS

Pew Report

National Sea Grant Strategic Plan

National Ocean Service Strategic Plan

NOAA National Centers for Coastal Ocean Science

EPA Strategic Plan

NMFS Strategic Plan

National Weather Service Strategic Plan

Natl Governors Association on Coastal Planning & Policy

Army Corps. of Engineers Civil Works Plan

Dept. of Defense Naval Oceanographic Office Strategic Plan

UN Atlas of the Oceans

USGS Florida Science Center plan

Environment Canada

Regional

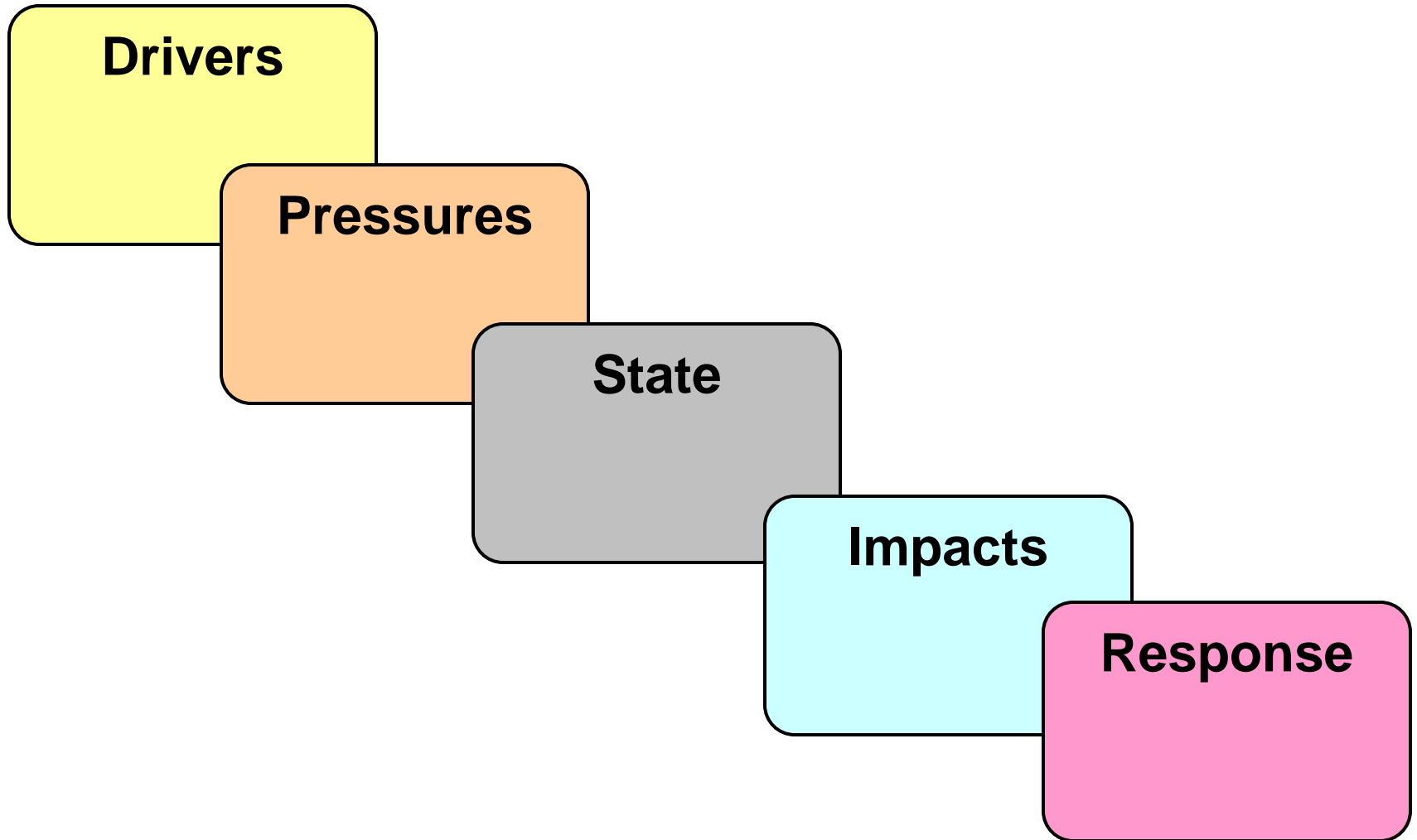
Southeast

- South Atlantic and Caribbean Regional Marine Research Plan
- NC, SC, GA, FL Sea Grant Documents
- State Coastal Management Programs
- Coastal Services Center Plan
- South Atlantic Marine Fisheries Council
- Fish and Wildlife Service Southeast Region
- EPA Strategic Plan, Region IV
- Natl. Park Service Coastal Southeast watershed reports

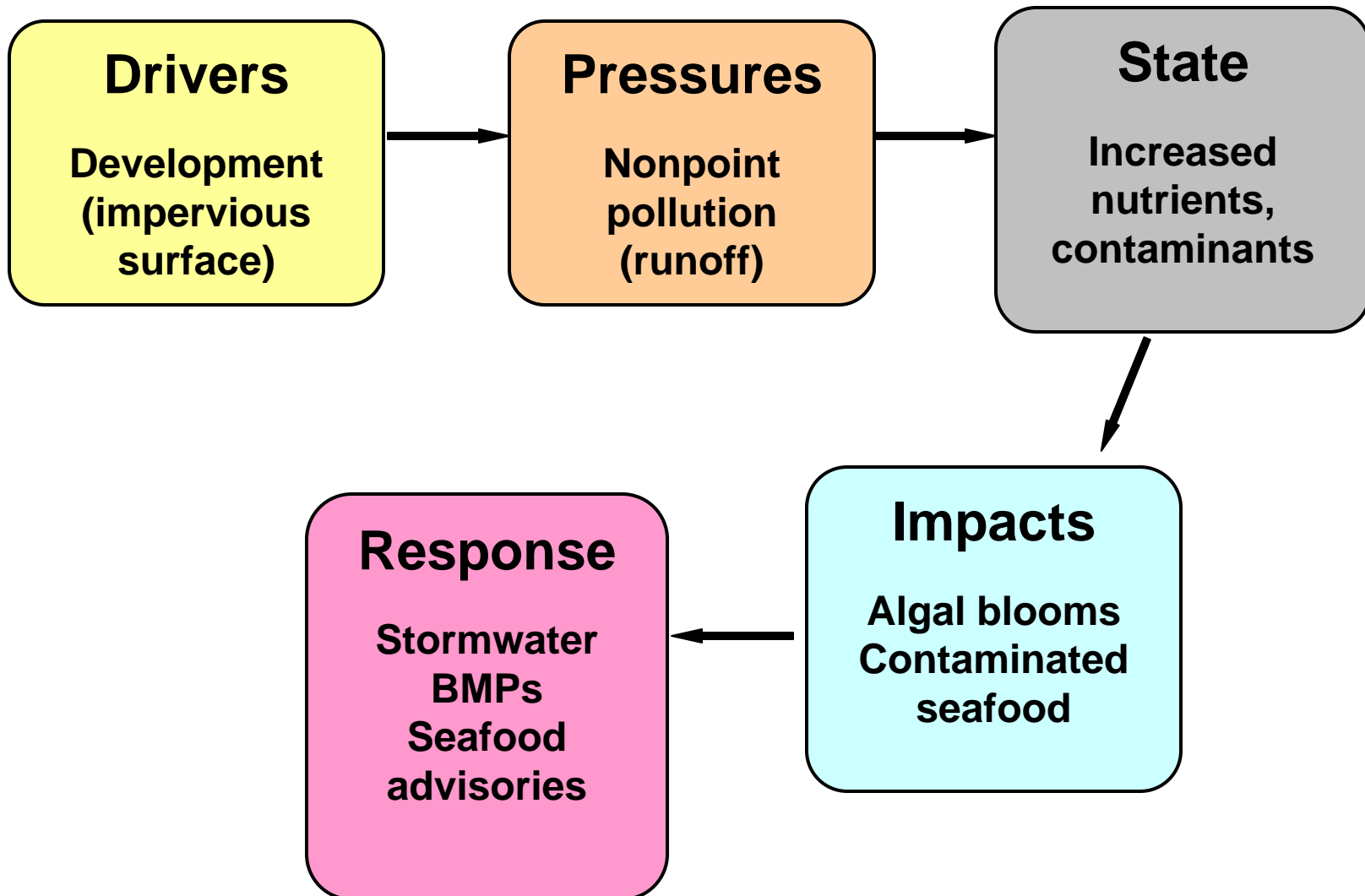
Other Regions

- West Coast Governors Agreement
- Gulf of Maine Council
- Great Lakes Regional Collaboration Plan
- Gulf of Mexico Alliance – Gulf Action Plan

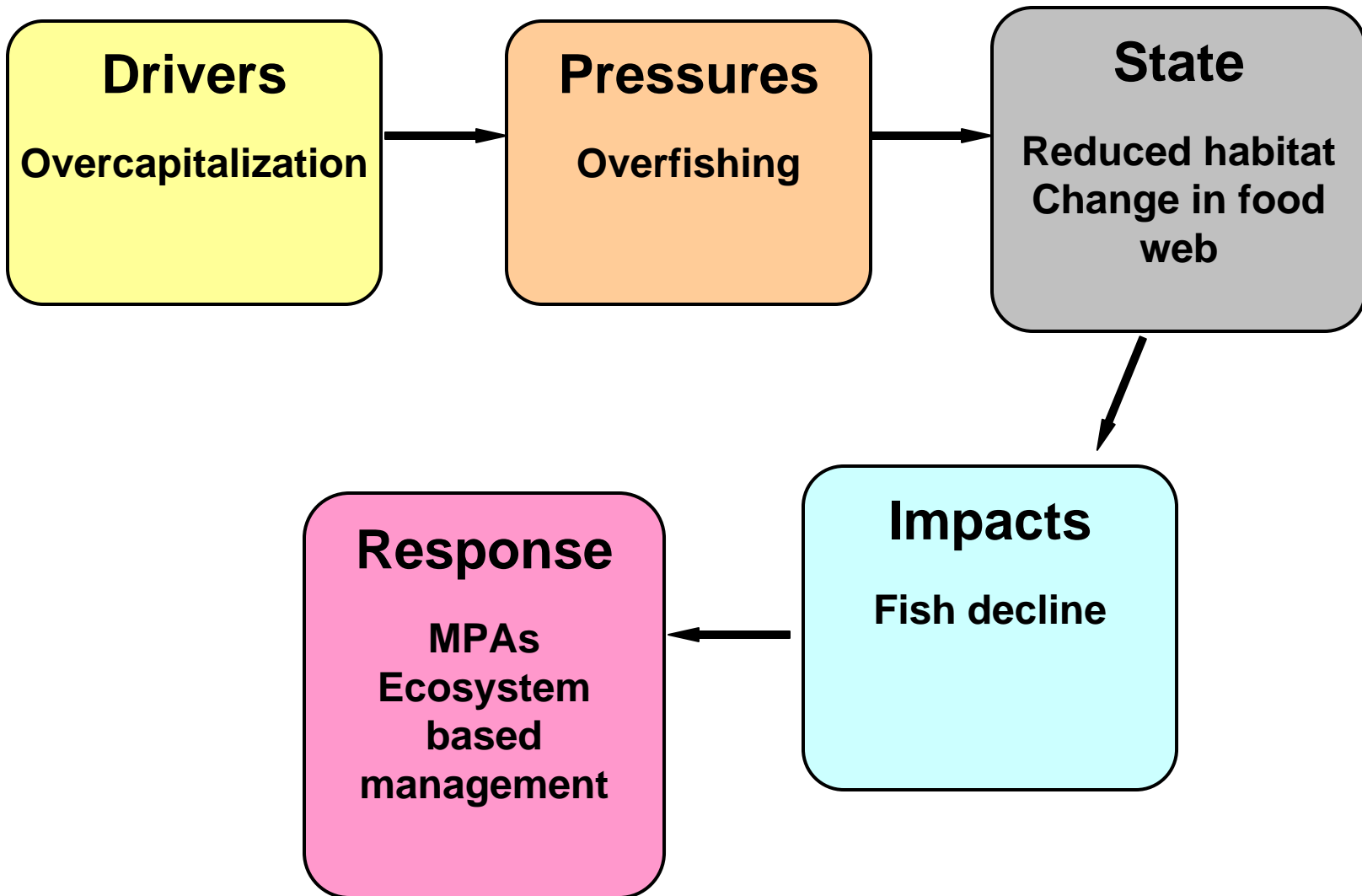
DPSIR framework



DPSIR example



DPSIR example



Drivers

- Urbanization/suburbanization
- Direct alterations
 - docks and marinas
 - dredging
 - seawalls and jetties
- Coastal use
 - tourism
 - fishing and aquaculture
 - commerce and transportation

Pressures

- Point source pollution
- Nonpoint pollution
- Changes in freshwater inflow
- Changes in hydrography, bathymetry
- Overfishing
- Species introduction
- Climate change

State

- **Physical characteristics**
 - sediment transport, rate of erosion
 - extent, location of habitat
- **Water and sediment quality**
 - pollutant concentrations (nutrients, metals, toxins, pharmaceuticals)
 - suspended sediment
 - dissolved oxygen
- **Biological components**
 - species composition, abundance, distribution
 - food web interactions

Impacts

- Habitat impacts
 - wetland loss
 - coral bleaching, marsh dieback
- Eutrophication symptoms
 - increase in HABs
 - decrease in SAVs
 - fish kills
- Human health effects
 - beach closures
 - contaminated fish and shellfish

Response

- Pollution abatement
 - Stormwater management
 - BMPs in the watershed
- Habitat mitigation, restoration
- Beach renourishment
- Fisheries management
 - Marine protected areas
 - Ecosystem-based management

Ocean Commission Report

Factors Undermining America's Ocean and Coast (from Ch 1) -

- Degraded water quality
 - Excess nutrients
 - Other contaminants
 - Harmful algal blooms
 - Sediment contamination
- Compromised resources
 - Fishery declines
 - Coastal habitat loss
 - Invasive species
- Conflicts between man and nature
 - Coastal population growth and land use
 - Natural hazards
 - Climate change

State

Impacts

Drivers

Pew Commission report

- Coastal development
- Aquaculture
- Nonpoint source pollution
- Point source pollution
- Invasive species
- Overfishing
- Habitat alteration
- Climate change
- Bycatch



Drivers



Pressures

Process

1. Inventory existing research plans
 - Georgia Coastal Research Council (GCRC)
 - Organizing Committee



Georgia Coastal Research Council

<http://www.gcrc.uga.edu>

Goals: To provide mechanisms for improved scientific exchange and to promote the incorporation of best-available scientific information into resource management .

Approach

- Facilitating Interactions
- Synthesizing Technical Information
- Conducting Research
- Communicating Results

Organizing Committee



NC: Ron Hodson

SC: Rick Devoe

GA: Mac Rawson

FL: Jim Cato

NC: Michael Voiland

SC: Rick Devoe

GA: TBD

FL: TBD

Process

1. Inventory existing research plans
 - GCRC, Organizing Committee
2. Identify top 10 research needs
 - Regional Advisory Group

Regional Advisory Group

- NOAA labs
- Other Federal agencies
- State partners
- Academic Institutions

Resource practitioners and scientists

Regional Advisory Group Considerations

- Alignment with other research efforts
 - National (ORPPIS)
 - Other Regional Research Plans
- Partnerships/synergy with other programs in the region
 - NOAA Regional Collaboration
 - SAFMC Ecosystem Management
 - DOD SERPAS program
 - Potential for a Governor's alliance??
- Scope: Create a well-defined niche

Process

1. Inventory existing research plans
 - GCRC, Organizing Committee
2. Identify top 10 research needs
 - Regional Advisory Group
3. Select priority issues
 - Stakeholders

Stakeholders

- Resource Practitioners
- Government officials
- Industry
- NGOs
- Scientists
- Community members

Process

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4. Develop action plan
 - Strategy Teams

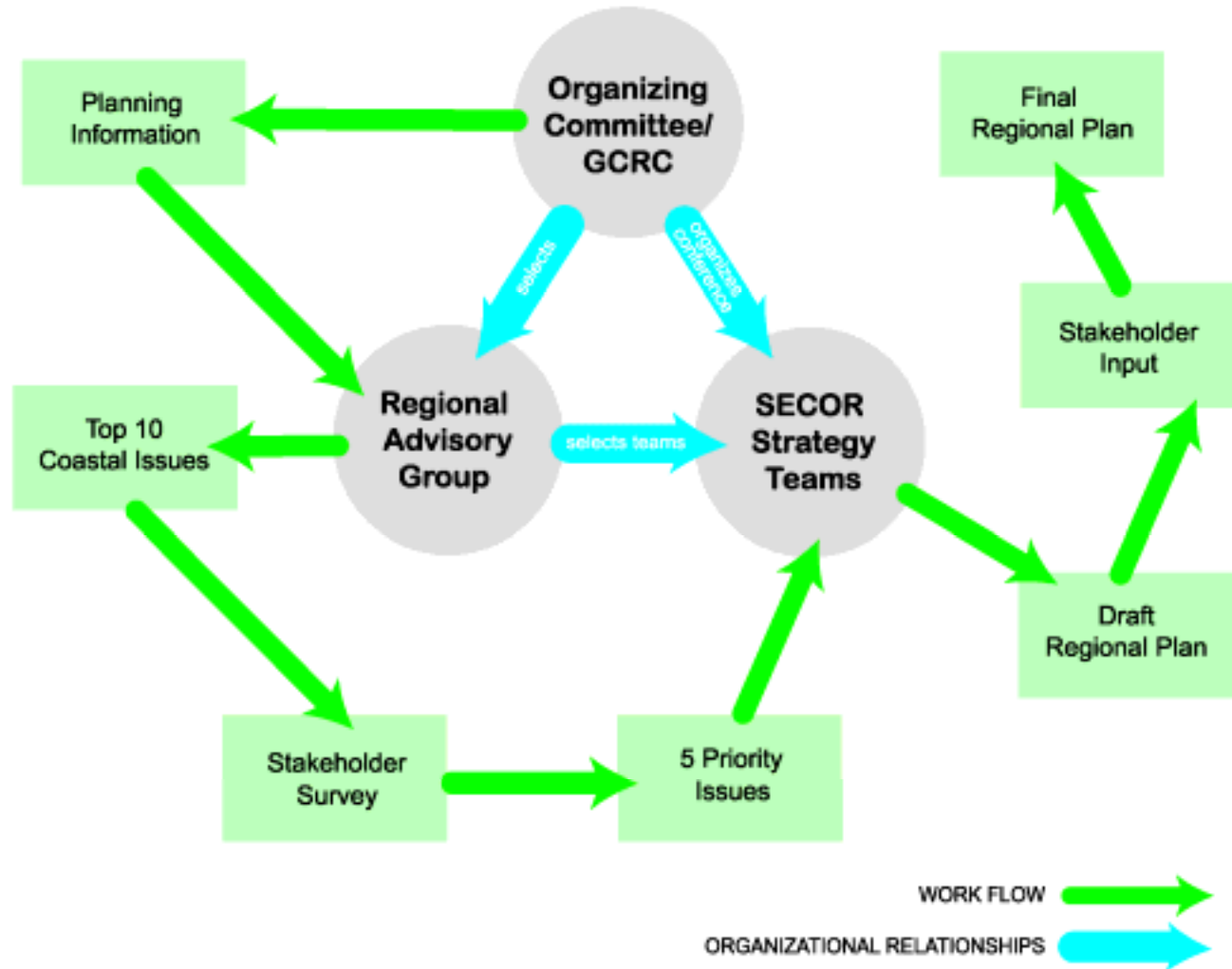
Southeast Coastal Ocean Research (SECOR)

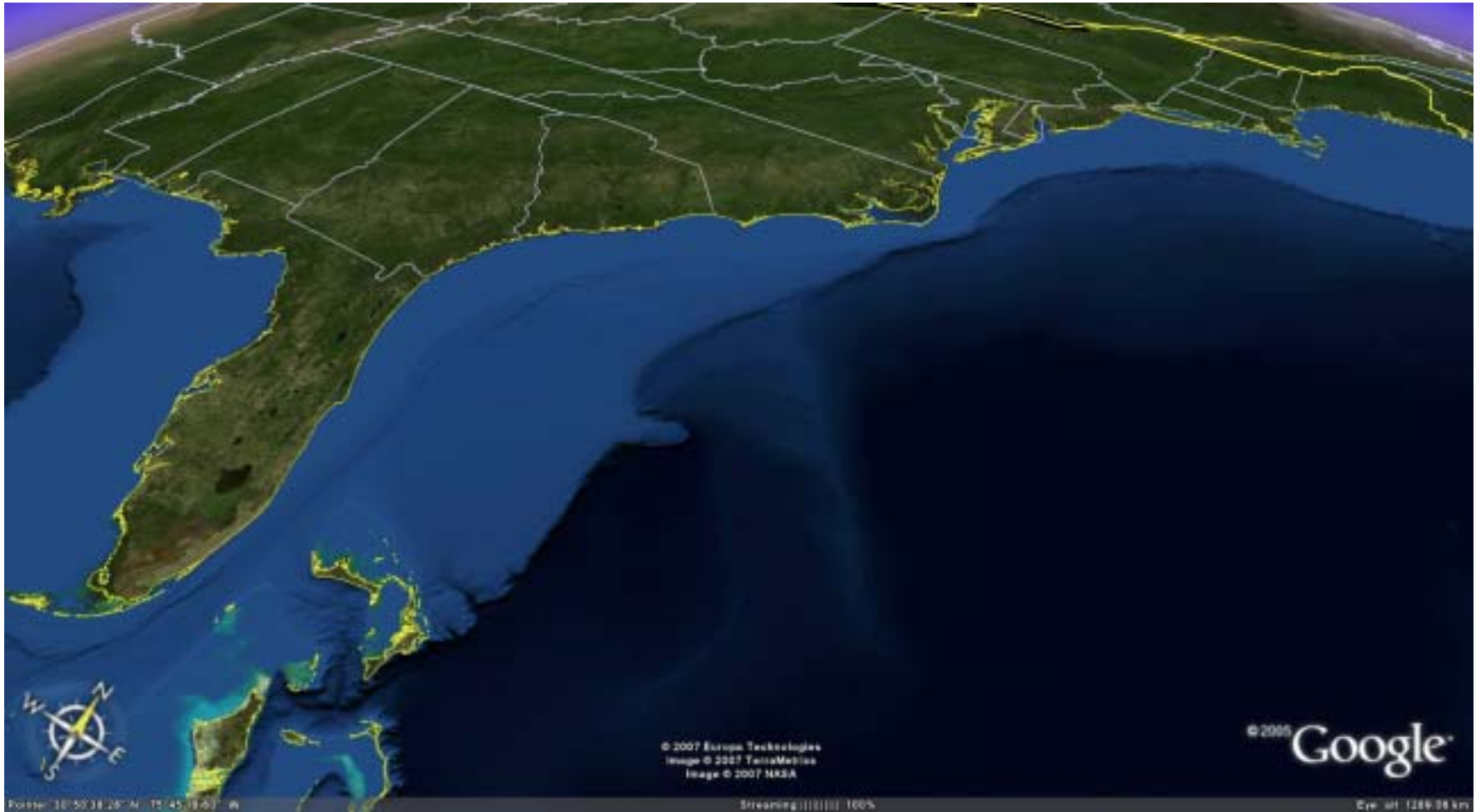
- Develop DPSIR model for issue
- Consider the role of human actions
- Identify gaps
- Describe status and trends
- Identify factors that affect susceptibility
- Evaluate future risk/vulnerability

Process

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 - Stakeholders
4. Develop action plan
 - Strategy Teams
5. Promote coordination, collaboration and resource sharing
 - South Atlantic Regional Council
6. Ongoing education and outreach
 - Communicators and others

Fig. 1 South Atlantic Regional Planning Process





“Water may flow in a thousand channels, but it all returns to the sea.” - African proverb