

# South Atlantic Regional Plan



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## National Estuarine Eutrophication Assessment (1999)

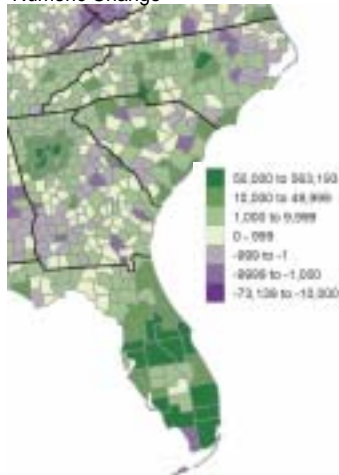


Bricker et al. 1999

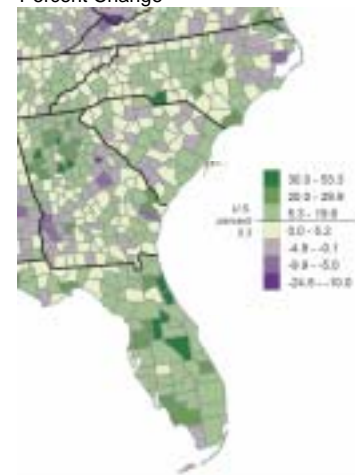
[http://ian.umces.edu/nea/pdfs/eutro\\_report.pdf](http://ian.umces.edu/nea/pdfs/eutro_report.pdf)

## Population Growth (2000-2005)

Numeric Change



Percent Change



US Census Bureau

## NEEA Update: Influencing Factors (2004)



<http://www.eutro.us/>

## 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

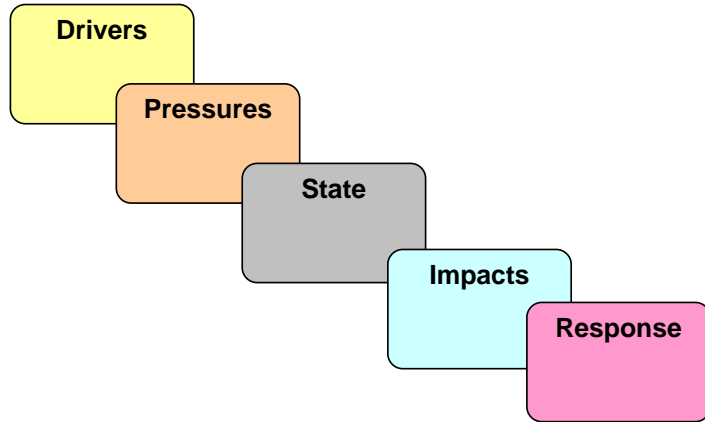
### Southeast

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

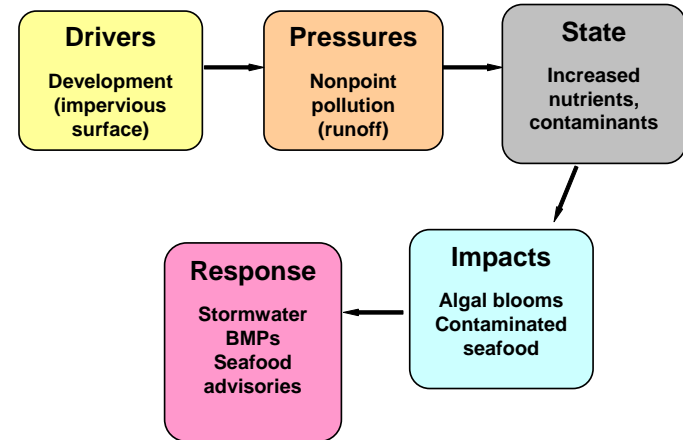
West Coast Governors Agreement  
Gulf of Maine Council  
Great Lakes Regional Collaboration Plan  
Gulf of Mexico Alliance – Gulf Action Plan

## DPSIR framework

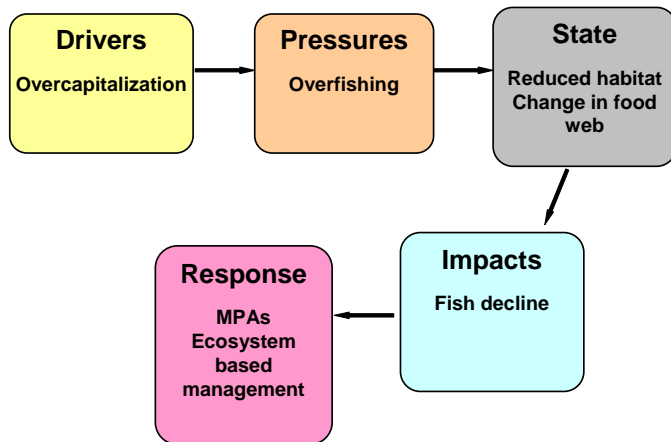


<http://lead.virtualcenter.org/en/dec/toolbox/FAO/Main1/annex1.htm>

## 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

State

- Compromised resources

- Fishery declines
- Coastal habitat loss
- Invasive species

Impacts

- Conflicts between man and nature

- Coastal population growth and land use
- Natural hazards
- Climate change

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
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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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  - Strategy Teams

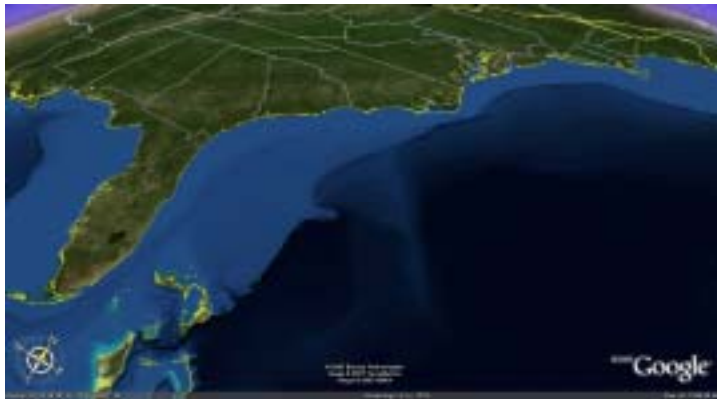
## Southeast Coastal Ocean Research (SECOR)

- 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