

# State of the Gulf of Maine

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## ACZISC Meeting #60

Dartmouth, Nova Scotia

12 May 2010

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*Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.*

Principle 1, Rio Declaration, 1992

# SOE Reporting

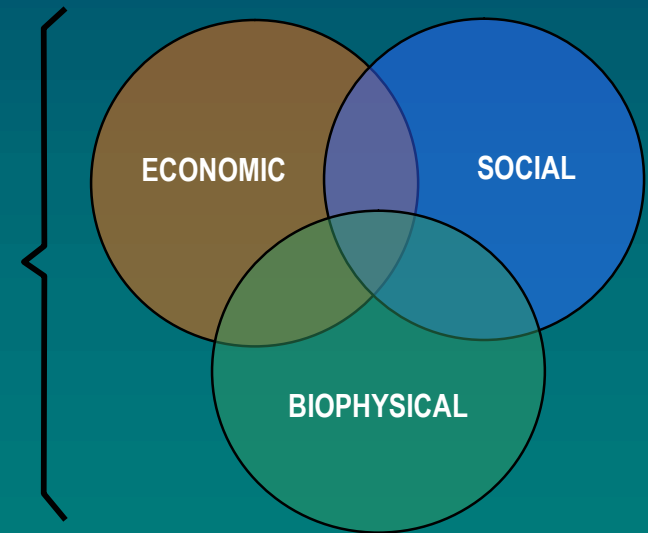
- Reports on the environmental sustainability of a system

## Sustainable development:

*“development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987)*

Environment

*“improving quality of life while living within the carrying capacity of supporting ecosystems” (Munro and Holdgate 1991)*



# SOE Reporting

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- Measure progress towards sustainability
- Provide a comprehensive analysis of environmental conditions and trends
- Contribute to informed and open decision-making
- Contribute to public awareness by providing scientific information about the environment in an easily understandable form
- Assists in identifying data/information gaps

# Gulf of Maine Council



Gulf of Maine  
Council on the  
Marine Environment

## Vision for the Future (Action Plan 2007-2012)

“... the Council intends to continue supporting region-wide information gathering and sharing (e.g., seafloor mapping, environmental monitoring, science translation to management, indicators, state-of-the-environment reporting)... The Council will continue to foster innovative approaches to sharing information and enhancing collaboration.”

# A SOER for the Gulf of Maine?

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Gulf of Maine Council recognised  
the need for SOE reporting

December 2008

Scoping Report presented to  
Working Group

March 2009

Council established Task Group  
for SOE reporting

June 2009

Workplan approved by Council

December 2009

Editorial Committee and Council  
Advisory Committee established

December 2009

LAUNCH v.1

9 June 2010

# Some Fundamental Principles

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- Build on work already done to date
  - Ecosystem Indicator Partnership (ESIP) work
  - Make use of existing committees where possible
  - Existing documentation
- Focus on priority issues
  - Climate change; Fisheries and aquaculture; Coastal development; Aquatic habitats; Contaminants; Eutrophication
- Flexible format, that is readily updatable and affordable
- Think outside the box – new ways to disseminate information
- Communications requirements are developed in parallel to the content and not tagged on at the end.

# Target Audience

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- 1° Professional staff of organizations in the region
  - 2° Coastal decision makers (coastal law makers, decision makers and managers)
  - 2° General public

# Reporting System

flexible – affordable – accessible - incremental

- Modular SOER
- Web Portal
- Wiki Site



**"The Tome"**

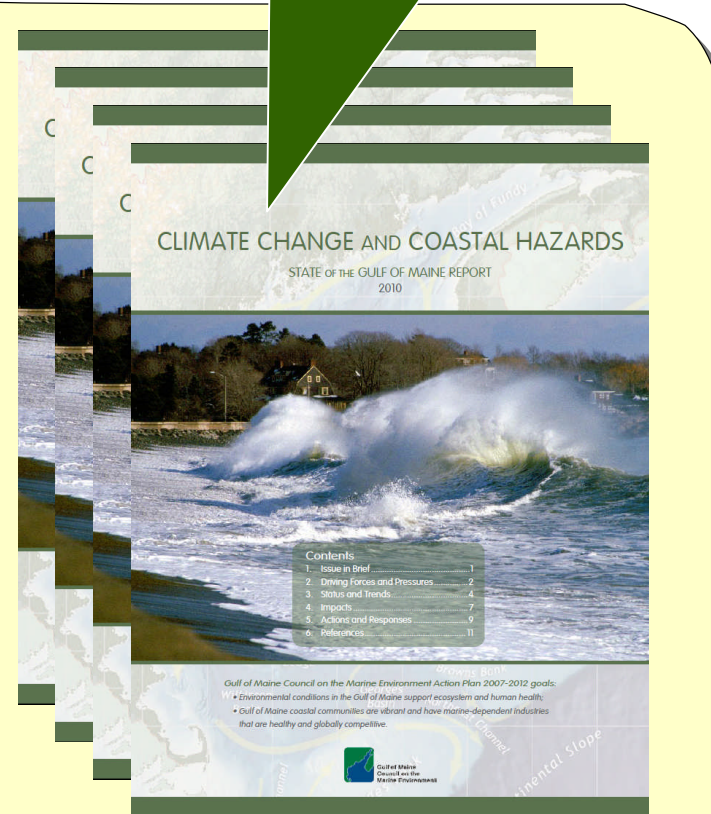
# Modular SOER

- Evaluation of priority issues
- Regularly updated
- Incremental approach
- DPSIR framework (includes social, economic and ecological components)

## SOER



- Overview of GOM
- Relatively static
- Provides the context  
*e.g.* boundaries, size of watershed, history, management



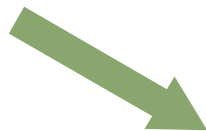
## DRIVING FORCES

Human influences and natural conditions driving environment change



## PRESSURES

Stresses that human activities and natural conditions place on the environment



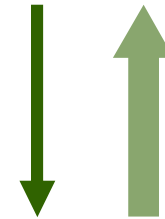
## STATE

State or condition of the environment



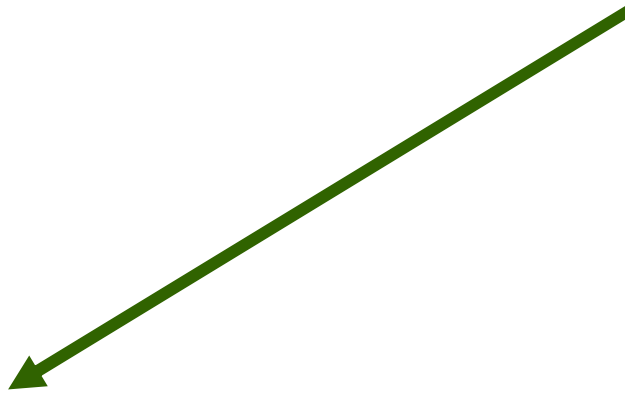
## RESPONSES

Responses by government and society to the environmental situation



## IMPACTS

Biological, economic and social effects of environmental change



# Key Questions

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- What is happening in the environment?
  - *i.e.* what are the environmental conditions and trends?
- Why is it happening?
  - *i.e.* how are human activities and other stresses linked to the issue in question?
- Why is it significant?
  - *i.e.* what are the ecological and socioeconomic effects?
- What is being done about it?
  - *i.e.* how is society responding to the issues through government and industry action and voluntary initiatives?
- **Is this sustainable?**

# Gulf of Maine

Priority Area	Theme Papers
Climate Change	Climate Change and Coastal Hazards Climate Change and its Effect on Ecosystems, Habitats and Biota
Fisheries and Aquaculture	Aquaculture in the Gulf of Maine Commercial Fisheries and Fish Stock Status
Coastal Development	Land Use and Coastal Development
Contaminants	Toxic Contaminants Microbial Pathogens and Toxins
Eutrophication	Eutrophication
Aquatic Habitats	Coastal Ecosystems and Habitats Offshore Ecosystems and Habitats Watershed Status
Other Issues	Invasive Species Species at Risk
Emerging Issues	Emerging Issues

## Driving Forces

Socio-economic and environmental forces driving environmental change

### NATURAL CONDITIONS

Geology  
Oceanography

### DEVELOPMENT & ECONOMIC ACTIVITY

Population growth  
Economic activity  
Land use change

### CLIMATE CHANGE

Global warming  
Emissions

## Pressures

Stresses that human activities or natural processes place on the environment

### CONTAMINATION

Natural sources  
Anthropogenic pollution

### RESOURCE USE

Renewable resources  
Non-renewable resources  
Ocean space

### CLIMATE CHANGE EFFECTS

Sea temperature  
Sea level rise  
Storm events

## State

Status or condition of the environment

### QUALITY

Eutrophication  
Toxic compounds  
Microbiological contaminants  
Tissue quality

### PRODUCTIVITY

Primary productivity  
Secondary productivity

### BIODIVERSITY

Communities  
Species at risk  
Invasive species  
Fish stocks  
Migratory birds  
Other species/  
communities

### HABITATS

Landscape patterns  
Coastal habitats  
Offshore habitats

## Impacts

Biological, economic and social effects of environmental change

### ECOSYSTEM HEALTH & INTEGRITY

Structure  
Function

### USE VALUE

**Social**  
Health  
Recreation

**Economic**  
Aquaculture  
Fisheries  
Tourism  
Shipping

## Responses

Responses by government and society to the environmental situation

**POLICY & LEGISLATION**

**PROGRAMS & INITIATIVES**



# STATE OF THE GULF OF MAINE REPORT

Climate  
Change

Fisheries &  
Aquaculture

Coastal  
Development

Aquatic  
Habitats

Eutrophication

Contaminants

Biodiversity

Emerging  
Issues

This will contain introductory text

Subscribe



## Editorial Team

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would like to be involved in writing a  
theme paper, please contact:

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Management  
National Oceanic and Atmospheric  
Administration



# Launch

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- Part of the 20-year celebrations of the Gulf of Maine Council
- Linked to Oceans Day celebrations in Portland, Maine
- 9 June 2010