Implementing the U.S. Ocean Action Plan in the Gulf of Mexico

Meeting of the Gulf of Mexico States and Federal Officials

June 9, 2005

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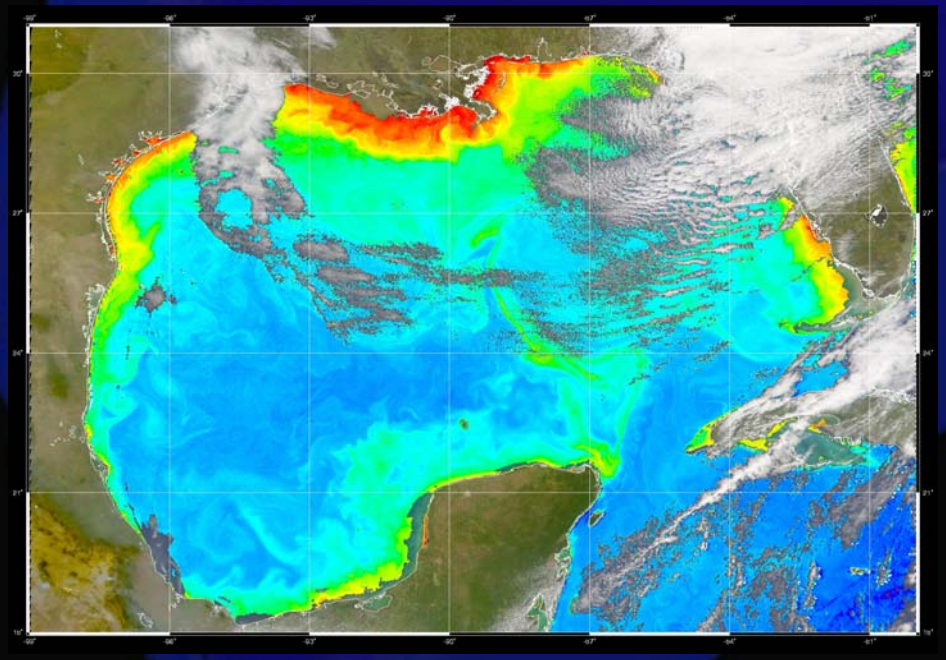
Nutrient Reductions

Nutrient Reductions



Phil Bass

Director of the Office of Pollution Control
Mississippi Department of Environmental Quality

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Problem Statement / Goal:

Nutrient Reductions

Nutrient Reductions

Introduction of excess nutrients into the estuaries and waters of the Gulf is one of the primary problems facing the Gulf States.

- 57% of estuaries impaired by excess nutrients
- 40% of total estuarine surface area in US exhibit degraded eutrophic conditions
- Hypoxia
- Habitat loss

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Strengths & Progress:

Nutrient Reductions

Nutrient Reductions

- **Mississippi River/Gulf of Mexico Watershed Nutrient Task Force**
- ***Action Plan for Reducing, Mitigating and Controlling Hypoxia in the Northern Gulf of Mexico* (2001)**
- ***A Science Strategy to Support Management of Decisions Related to Hypoxia in the Northern Gulf of Mexico and Excess Nutrients in the Mississippi River Basin***
- **2000 Farm Bill**

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Strengths & Progress:

Nutrient Reductions

Nutrient Reductions

- **Texas**
  - Extensive coastal WQ baseline data
  - Coordinated sampling system
- **Alabama**
  - Sub-watershed priority areas
  - Monthly coastal and upland sampling stations
  - NPS intensive watershed assessments
  - Volunteer monitoring network

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Strengths & Progress:

Nutrient Reductions

Nutrient Reductions

- **Louisiana**
  - NPS program nutrient BMPs
  - 303(d) list used by State Technical committee for priority area selections
- **Mississippi**
  - Coordinated multiphase sampling approach
  - Established active “Basin Teams” in the three coastal watersheds

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Strengths & Progress:

Nutrient Reductions

Nutrient Reductions

- **Nutrient WQ criteria development**
  - **Texas**
    - ✓ Issued draft "Nutrient Criteria Development Plan"
    - ✓ Plans for draft criteria proposal by end of 2005
    - ✓ Expects to implement by 2010
  - **Alabama**
    - ✓ Developing nutrient criteria for 24-40 reservoirs
    - ✓ Next will focus on (1) streams and rivers and (2) coastal and estuarine areas
  - **Louisiana**
    - ✓ Completed plan for developing nutrient criteria

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Nutrient Reductions

Nutrient Reductions

Strengths & Progress:

- **Florida**
  - ✓ **Developing nutrient criteria for lakes and streams**
    - Identifying reference areas,
    - Collecting relevant historical data and assessing its quality
    - Developing a nutrient/DO monitoring study to fill data gaps
- **Mississippi**
  - ✓ **Collecting data for nutrient criteria development**
  - ✓ **Established a 15 member Task Force**
  - ✓ **Using a ecoregion approach to development**
  - ✓ **Have identified data gaps and approaches to fill**

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Nutrient Reductions

Nutrient Reductions

Barriers / Challenges:

- Difficult to differentiate cultural eutrophication from natural conditions
- Point Source, NPS, and atmospheric nutrient sources are highly variable
- Many sources are from upstream states
- Data
  - Insufficient to adequately characterize nutrient & biological conditions
  - Most monitoring is at local level
    - ✓ Creates potential for data incomparability
- STORET
  - Insufficient quality
  - Insufficient metadata

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Nutrient Reductions

Barriers / Challenges:

- NEED ASSESSMENT TOOLS
  - Bioassessment tools
  - Relationship between land use & nutrient problems in coastal waters.
- Farm Bill
  - Better utilize these resources
- Rapidly growing coastal population
  - Increase in nutrient loading
- Many state agencies monitoring
  - Data not in central location
- Lack of funding limits monitoring programs

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Priority Needs:

Nutrient Reductions

Nutrient Reductions

- **Resources**
  - **Monitoring – nutrients and biological**
  - **Development of nutrient criteria & biological response criteria**
  - **Coordinate efforts to ensure consistency**
    - ✓ **Nutrient criteria workshops**
  - **Tools to understand land use relationship to nutrient issues**

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Priority Needs:

Nutrient Reductions

Nutrient Reductions

- Implement nutrient source reduction measures
  - 2000 Farm Bill
  - Ag nutrient reduction
  - WWTP upgrades
  - Urban stormwater management
- Collaboration between feds and states
  - Support Action Plan

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Priority Needs:

Nutrient Reductions

Nutrient Reductions

- Fund environmental lands acquisition programs
  - Establish urban buffers
  - Build filter marshes
- Better standard practices for stormwater systems w/federal highway program
- Pair restoration priorities with WQ & wetland mitigation needs

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Priority Needs:

Nutrient Reductions

Nutrient Reductions

- Comprehensive, coordinated effort to evaluate & prioritize nutrient issues
- Develop strategies/attain resources to reduce excess nutrients
- Funding for nutrient load abatement & monitoring
  - More & better WQ & habitat data

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Priority Needs:

Nutrient Reductions

Nutrient Reductions

- Study downstream effects of nutrient loading
- Address shared waterbodies
- Improve WQ monitoring methodology
- Mesh WQ monitoring programs with biological monitoring programs
- Central repository for Gulf-wide nutrient related data

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Priority Needs:

Nutrient Reductions

Nutrient Reductions

- **Retain support from:**
  - **Gulf of Mexico Program**
  - **National Hypoxia Task Force**
  - **Lower Mississippi River Conservation Committee**


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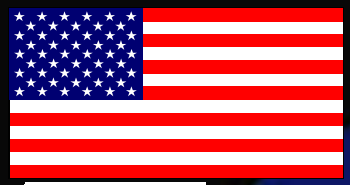
Nutrient Reductions
Nutrient Reductions
Questions / Clarifications?

-FEDERAL PARTNERSHIP RESPONSE –
"Early Concepts/Proposals for Interest"

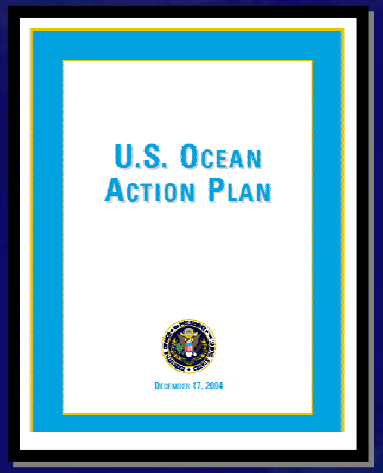
Nutrient Reductions

Nutrient Reductions



- CEQ
- EPA
- NOAA
- DoI
- USDA
- ACOE
- DHHS
- NASA
- DoE
- DOD
- NSF
- DoS
- DoT

Partnership Development Co-Leads:



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-FEDERAL PARTNERSHIP RESPONSE –
(Team Support Framework)

- CEQ
- EPA
- NOAA
- DoI
- USDA
- ACOE
- DHHS
- NASA
- DoE
- DOD
- NSF
- DoS
- DoT

Nutrient Reductions

Co-Leads:

Technical / Resource Support: