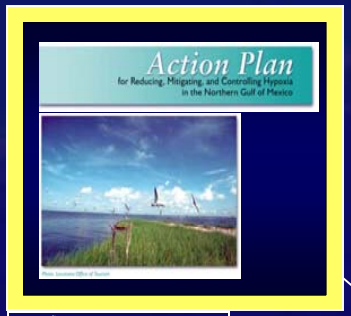
-FEDERAL PARTNERSHIP RESPONSE –
(Priority Area Coordination)

Nutrient Reductions

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

NR-1:
Hypoxia Reassessment Science Coordination



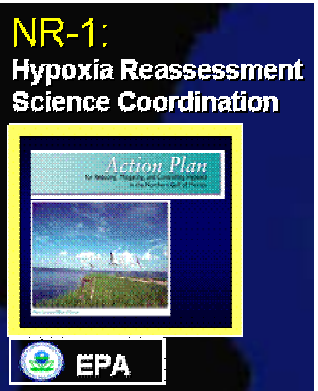
EPA

Near-Term Project Concepts (Proposed)

NR-2:
MS River Basin Producer Partnership Initiative

EPA

Preliminary Federal Response Proposals: Nutrient Reductions



- NR-1: Gulf Hypoxia Reassessment Science Coordination – EPA
  - *Why?* "Tools [are needed] to better understand the relationship between watershed land uses and the resulting nutrient problem in coastal waters: This will help ensure the development of technically-rigorous TMDLs and coast-effective nutrient load reduction strategies."
  - coordinated delivery to the Gulf States of continually advancing nutrients science and data tools and resources developed through the 2005 Gulf Hypoxia Science Reassessment

NR-2:
MS River Basin Producer Partnership Initiative

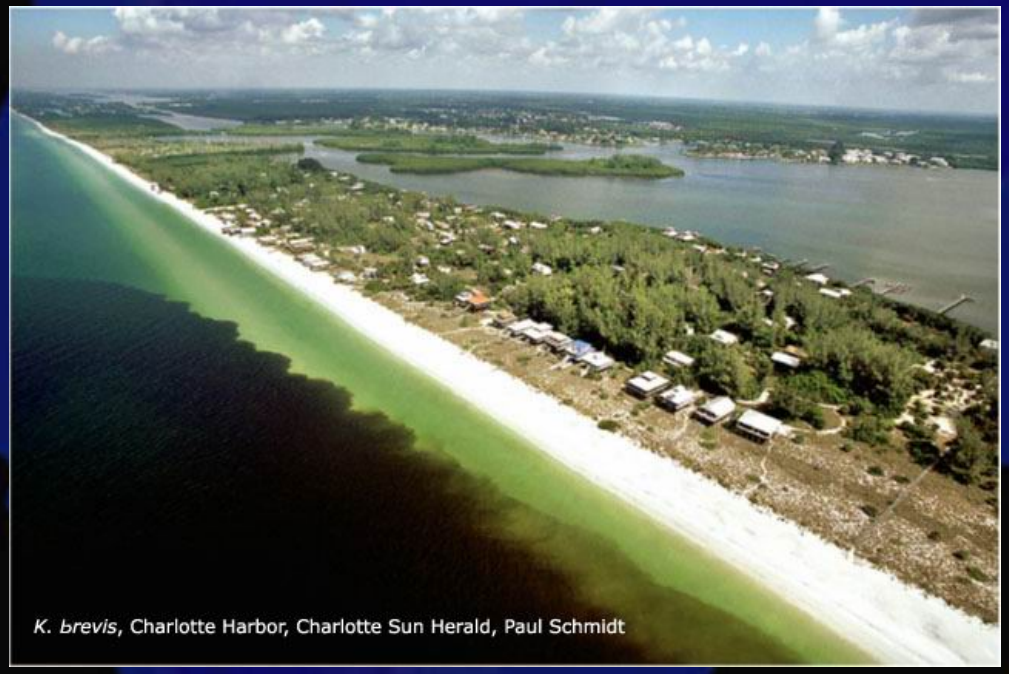
EPA

Preliminary Federal Response Proposals: Nutrient Reductions

GULF OF MEXICO ALLIANCE

Water Quality

Water Quality



K. brevis, Charlotte Harbor, Charlotte Sun Herald, Paul Schmidt

Frank Nearhoof

Florida Department of Environmental Protection

Note:

“Place-holder”

Frank Nearhoof (FL) will provide substitute slides for inclusion.

GULF OF MEXICO ALLIANCE

Water Quality

Problem Statement / Goal:

Water quality-related problems that are localized and episodic, but the extent and frequency of which are increasing.

- Eutrophication,
- Elevated bacteria levels
- Harmful algal blooms (HABs)
- Hypoxia
- Toxic contamination of fish and wildlife.

GULF OF MEXICO ALLIANCE

Strengths & Progress:

Water Quality

- Federal and State water quality programs and local initiatives have established a fundamental framework for water quality management.
- USEPA and state coordinate on surface Water Classification
- National Pollution discharge Elimination System (NPDES) for permitting of wastewater and stormwater discharges
- Total Maximum Daily Load (TMDL) programs to address impairments
- water quality monitoring and assessment networks for coastal waters

GULF OF MEXICO ALLIANCE

Strengths & Progress (2):

Water Quality

- Other programs addressing waste and ballast water discharges from cruise ships, smaller vessels and live-aboards have been established
- The FDA, NMFS, EPA and the Gulf States participate in the Interstate Shellfish Sanitation Conference (ISSC) and implement the National Shellfish Sanitation Program (NSSP)
- Federal and Gulf States collaboration on Harmful Algal Blooms Observing System (HABSOS) monitoring as a pilot for Gulf Coast Ocean Observing System (GCOOS)
- The Federal BEACH Act provides money to the states to conduct monitoring of beaches and provide public notification

Strengths & Progress (3):

- Established networks of local partners implementing water quality related initiatives through the Gulf of Mexico Program and the seven National Estuary Programs

GULF OF MEXICO ALLIANCE

Barriers / Challenges (1):

Water Quality

- Lack of sufficient diel DO data to develop more appropriate estuarine DO criteria
- Still insufficient information for some parameters (e.g. metals, pesticides) to determine if there are problems
- Lack bacterial tracking tools so that specific sources can be identified
- Lack appropriate water quality standards for assessing ecological health
- Need for tools to better understand the relationship between whole watershed land uses and the resulting water quality problems

GULF OF MEXICO ALLIANCE

Barriers / Challenges (2):

Water Quality

- Need long-term monitoring of changes in land cover and land use for coastal watersheds
- Need to understand the cumulative impacts of the increasing coastal populations, with the associated habitat loss, hydrologic alteration, and alteration of freshwater inflows on water quality of coastal ecosystems

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Priority Needs:

Water Quality

Water Quality

- Similarity in water quality problems presents an opportunity to develop a collaborative approach between the states, local and Federal governments
- Enhanced partnerships with the 7 NEPs to implement the CCMPs
- Comprehensive, Federally funded water quality monitoring programs
- More intensive monitoring in small tidal streams
- Refine water quality criteria specific to southern coastal waters, especially for DO and biological indicators
- Tools to relate land use activities and habitat degradation/loss to water quality problems

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Priority Needs (2):

Water Quality

- Landscape models are needed to integrate the type and intensity of human land uses
- Bacterial Source Tracking (BST) methods development & standardization
- Biological assessment tools development
- Methods to detect, identify the cause of, and limit of HABs
- Monitoring of mercury and other toxics in estuarine and marine fish
- Develop modeling tools to relate watershed-wide land use activities to water quality problems that incorporate estuarine issues.

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Priority Needs (3):

Water Quality

- Develop and standardize bacterial source tracking methods
- Assistance in biological assessment tool development
- Epidemiological studies focused on fecal contamination in recreational waters
- Improved indicators of bacterial pollution.
- A continuing effort to address sources of toxics in Gulf and estuarine fish species from local and non-local sources
- Detrmine if humans contribute to harmful algal blooms
- Coordination and standardize Federal and State data collection activities

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Priority Needs (4):

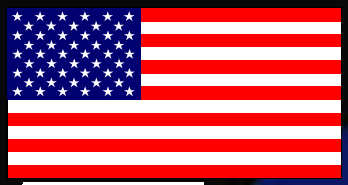
Water Quality

Water Quality

- Compile water quality data into a Gulf of Mexico database with web access
- Federal funding for regular meetings of Gulf States and Federal agencies at least twice per year (viz. Gulf States Marine Fisheries Commission meetings) to coordinate efforts.


GULF OF
MEXICO
ALLIANCE
Water
Quality
Questions / Clarifications?

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



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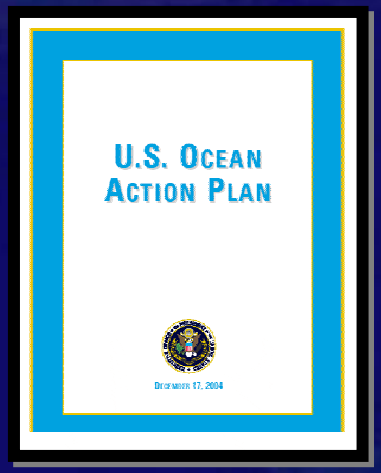
Water
Water
Quality
Quality

Partnership Development Co-Leads:



Bryon Griffith
Director
U.S. EPA Gulf of Mexico Program Office

Jack Hayes, Ph.D.
Deputy Assistant Administrator
Ocean and Coastal Zone Management
NOAA National Ocean Service

-FEDERAL PARTNERSHIP RESPONSE –

(Team Support Framework)

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

Co-Leads:

Technical / Resource Support:

Water Quality

-FEDERAL PARTNERSHIP RESPONSE –
(Priority Area Coordination)

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Water Quality

Water Quality

Near-Term Project Concepts (Proposed)

WQ-1:
HABs Forecasting System

NOAA

WQ-2:
Regional Shellfish Info Mgt. System

NOAA

WQ-3:
Mercury in Gulf Fish Tissue

EPA

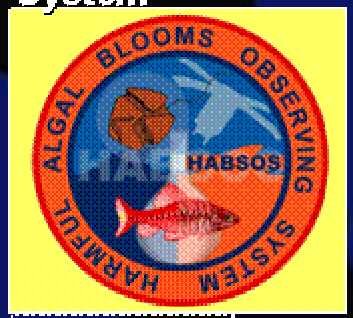
NOAA

WQ-4:
Bacterial Source Tracking

EPA

Preliminary Federal Response Proposals: **Water Quality**

WQ-1:
HABs Forecasting System



NOAA

- WQ-1: HABs Forecast System Improvement and Expansion – **NOAA**
  - *Why? "… development of tools to address water quality problems include…[m]ethods to detect, identify the cause of, and prevent red tide …"*
  - Improve models for predicting landfall and transport of HABs in SW Florida
  - Extend this capability to south Texas / northern Mexico coast

Preliminary Federal Response Proposals: Water Quality

WQ-2:
Regional Shellfish Info Mgt. System

NOAA

- WQ-2: Implement a Regional Shellfish Information Management System – **NOAA**
  - *Why? "… compilation of data into a Gulf of Mexico database, with web access to increase data and information sharing …"*
  - Develop a regional assessment capability for the scale and scope of shellfish growing water closures and the problems contributing to closures

Preliminary Federal Response Proposals: Water Quality

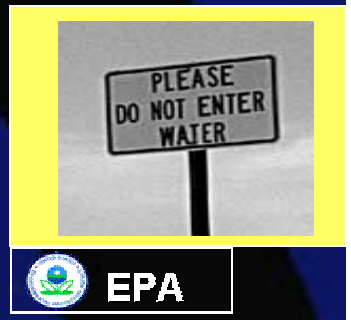
WQ-3:
Mercury in Gulf Fish Tissue

EPA
NOAA

- WQ-3: Mercury in the Gulf of Mexico- **EPA/NOAA**
  - *Why? "… It is known that several species of estuarine and marine fish have locally unacceptably high mercury body burdens; however, the data may be of insufficient quality, quantity and spatial extent to fully protect public health."*
  - incorporating the results of a survey of mercury in finfish into an existing EPA database of mercury in edible seafood tissues
  - integrating and leveraging NOAA research and modeling capabilities
  - increasing coordination of Federal and state mercury research activities.

Preliminary Federal Response Proposals: Water Quality

WQ-4:
Bacterial Source Tracking



- WQ-4: Bacterial Source Tracking – EPA
  - *Why? "There is…an opportunity for the federal government to provide assistance to the states (e.g. through the USEPA Office of Research and Development) to improve indicators and develop reliable and rapid BST tools and in establishing specific recreational criteria for different sources of the bacteria and by possibly allowing Beach Act monies to be utilized in BST efforts."*
  - developing molecular fingerprinting method(s) and a digital library to track animals associated with contaminated waters
  - establishing a Regional (five-state) Bacterial Source Tracking Team