

Reducing Nutrient Impacts:

Activities of the Gulf of Mexico Alliance and the
Mississippi River/Gulf of Mexico Nutrient Task Force



**Mississippi River
Gulf of Mexico
Watershed Nutrient
Task Force**

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EPA Nutrient TMDL Workshop
New Orleans, LA
February 17, 2010

How Important is the Gulf of Mexico?

- 6th Largest Water Body in the World
- Most Productive Fishery in the World
 - 1.7 Billion Pounds of Fish
 - 231 Million Pounds of Shrimp
 - 24.4 Million Pounds of Oysters
 - More Fish, Shrimp & Shellfish than Mid-Atlantic, Chesapeake Bay, and New England combined



How Important is the Gulf of Mexico?

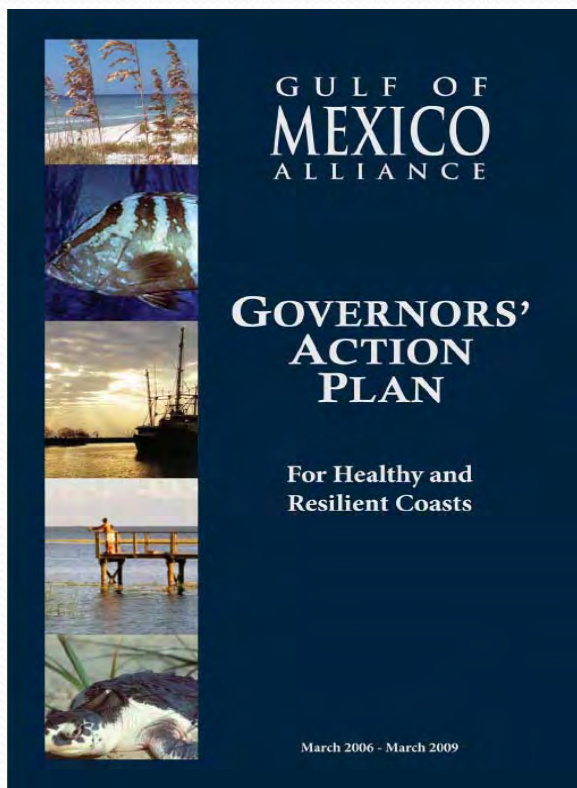
- Energy
 - 43% of U.S. Dry Natural Gas
 - 50% of U.S. Liquid Natural Gas
 - 44% of U.S. Crude Oil
- Transportation
 - Largest Tonnage Port in the World – LaPlace, LA
 - Mississippi River Trade
 - 60% of USA Grain Exports
- Economic
 - 83% of U.S. Shrimp
 - 56% of U.S. Oysters
 - 28% of U.S. Recreational Fishing
 - 52% of U.S. Crude Oil
 - 54% of U.S. Natural Gas

The Gulf of Mexico Alliance



- Gulf States' Governors announced the Alliance in March 2006
- State Led
 - AL, FL, LA, MS, and TX
- Federally Supported
 - Support from numerous federal agencies
 - Federal workgroup chaired by EPA, NOAA, and DOI
 - NOAA, EPA, NASA, and others now providing funding to support Alliance activities

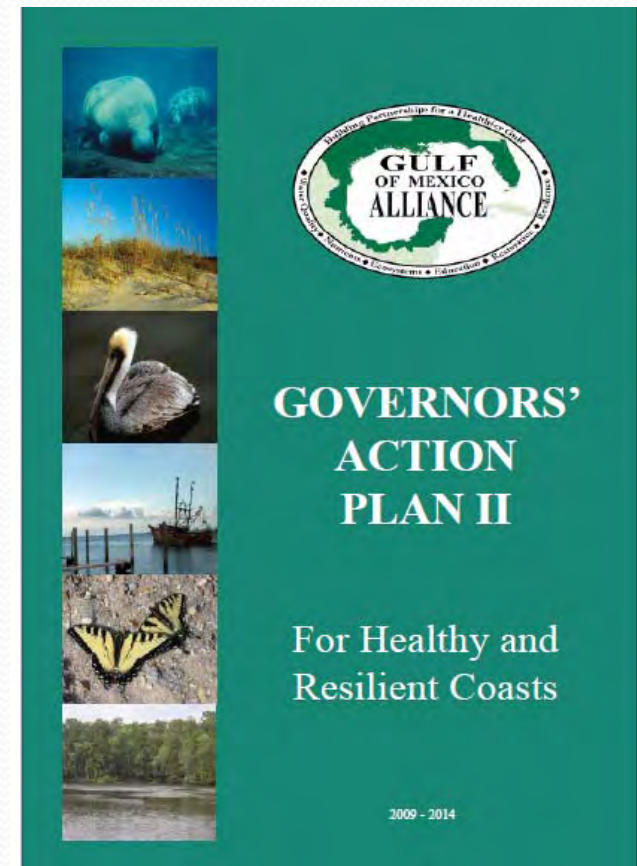
Action Plan 1



- Released March 2006
- Identified regional priority issues and State leads
- Organized into 5 Priority Issue Teams (PITs)
 1. Ecosystem Integration and Assessment
 2. Environmental Education
 3. Habitat Conservation and Restoration
 4. Nutrients
 5. Water Quality
- 36-month outcomes
- Approved/Signed by all 5 Gulf State Governors
- Shoestring budget support
- Wrapped up March 2009

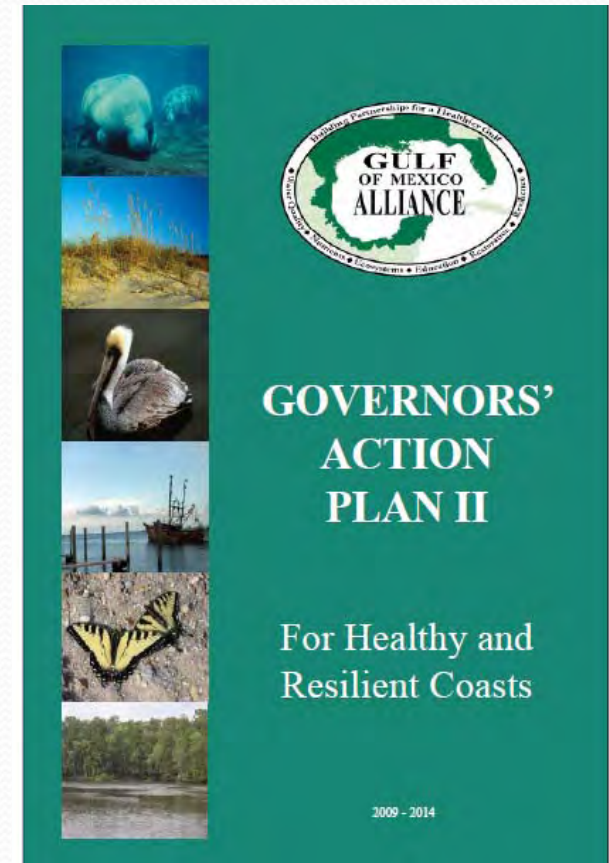
Action Plan 2

- Released in June 2009
- 6 Priority Issue Teams (PITs)
 1. Coastal Community Resilience
 2. Ecosystem Integration and Assessment
 3. Environmental Education
 4. Habitat Conservation and Restoration
 5. Nutrients
 6. Water Quality
- 5 year plan
 - More Ambitious
 - Outcome/Results Oriented
- Alliance receiving positive recognition, leading to funding opportunities



Action Plan 2

- Nutrients PIT Goals 2009-2014
 - Action 1: Nutrient Characterization
 - Action 2: Support State Efforts to Develop Nutrient Criteria
 - Action 3: Hypoxia Re
 - Action 4: Nutrient Reduction Activities
- 4 Actions, 22 Action Steps
- Team developed Tier 2 document to supplement AP2 - more detailed for implementation
- Implementation Teams for each Action





Action 1: Nutrient Characterization

- Nutrient Sources, Fate, Transport, and Effects Studies
 - St. Louis Bay, MS; Weeks Bay, AL; Mission-Aransas Bay, TX; Galveston Bay, TX; Tampa Bay, FL
- Ecosystem and Socioeconomic Impacts
- Strategies for Improved Monitoring and Data Collection
- Environmental and Biological Indicators of Nutrient Impacts
 - Benthic Index for Gulf of Mexico Waters
- Increase Understanding of the Role of Coastal Wetlands
- Increase Understanding of Contribution from Adjacent, Freshwater Systems to Coastal Waters



Action 2: Supporting State Development of Nutrient Criteria

- Aligned, Gulf States Approach
 - Developing a Regional Nutrient Criteria Development Plan
- Annual Gulf Alliance Nutrient Criteria Conference
 - Planning Now – Summer 2011
- Technical Workgroup to Evaluate Appropriate Biological Assessment Tools, Endpoints, and Nutrient Related Thresholds
- Gulf-wide Classification System
- Pilot the Process for Developing and Evaluating Nutrient Criteria



Action 3: Increasing Regional Coordination to Reduce Hypoxia

Coordinate strategies and provide guidance to better characterize hypoxia and the resulting socioeconomic impacts

- Includes Both Localized Hypoxic Events and the Gulf Hypoxic Zone
- Coordinate and Leverage with the Efforts of the Hypoxia Task Force (AP2 and GHAP 2008 Coordination Matrix)
- Monitoring and Modeling Components Included
- Coordination of Resources and Research
- Promote Information and Technology Exchange between the Upper and Lower MS River Basin States

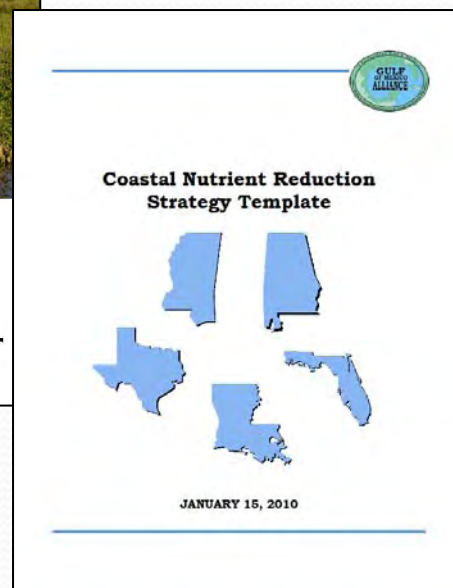
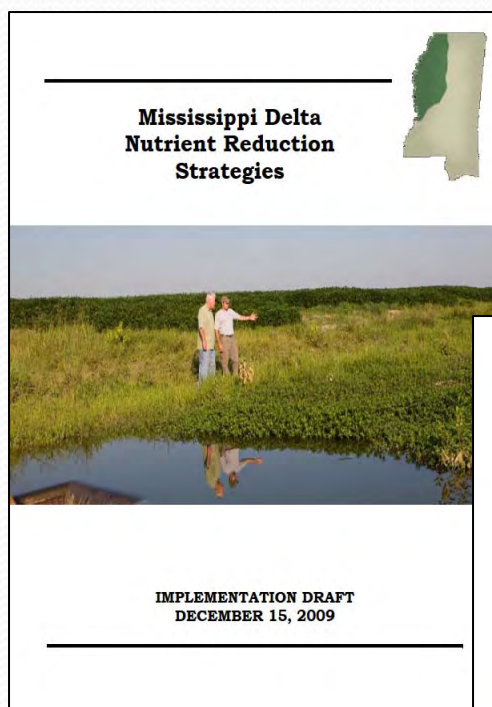


Action 4: Reducing Nutrient Inputs

Develop management tools and implement nutrient reduction activities in cooperation with local communities to reduce excess nutrient inputs to estuaries and coastal waters

- Outreach and Education Efforts
- Decision Support Toolbox
- Increasing Partnerships
 - Identify Sources
 - Identify Opportunities for Load Reductions
 - Implement BMPs
- Pilot New Innovative Technologies
- Nutrient Reduction Strategy Template (available online)
- Implement and Evaluate Nutrient Reduction Strategies

Developing & Implementing Nutrient Reduction Strategies



- Mississippi Delta Nutrient Reduction Strategies (2009)
- Coastal Nutrient Reduction Strategy Template (2010)
- Strategies being developed/implemented through the Alliance and the Hypoxia Task Force

Why Nutrient Reduction Strategies?

- Based upon Collaboration among Stakeholders, State/Federal Agencies, NGOs, Academia
- Road Map for All State/Federal Agencies, NGO's, Academia, Stakeholders
- Consistent, Repeatable Approaches Applicable to All Scales
- Facilitate Needed Research and Planning
- Guide Implementation
- Quantify Load Reductions, Costs, and Benefits to Stakeholders
- Develop Approaches and Tools to Achieve Nutrient Criteria



Implementation

- Implementation at the State Level
- Focus on Integration, Collaboration, and Leveraging
 - Program Integration
 - Technical Assistance
 - Funding
- Focus on Comparability
 - Consistency of Approach
 - Data Comparability
- Nutrient Criteria Are Coming – Strategies Provide a Starting Place for States to Begin to Address How to Reduce Nutrients to our Waters

How to Get Involved?

- Always looking for Team Members
 - Contact Nutrients PIT Leadership for more information
 - Action Implementation Efforts
- Nutrients PIT Regular Conference Calls
 - 2nd Tuesday of each Month
- Upcoming Events
 - Gulf Alliance Nutrient PIT Nutrient Criteria Conference
 - June 2011?
 - Texas?
 - Gulf Alliance “All Hands” Meeting
 - August 2-4, 2011
 - New Orleans, LA



Acknowledgements

- Regional Coordinator
 - Ann Porter (MDEQ)
- State Leads
 - Alabama – Lynn Sisk (ADEM)
 - Florida – Charles Kovach (FDEP) and Steve Wolfe (FDEP)
 - Louisiana – Kris Pintado (LDEQ) and Dugan Sabins (LDEQ)
 - Texas – Clyde Bohmfalk (TCEQ), Laurie Eng (TCEQ), and George Guillen (UH-CL)
- Federal Co-Facilitators
 - Lael Butler (EPA GMPO)



For More Information:
www.gulfofmexicoalliance.org

Hypoxia Task Force



**Mississippi River
Gulf of Mexico
Watershed Nutrient
Task Force**



About the Task Force

Membership:

- Federal Agencies
 - EPA, USDA, DOC (NOAA), DOI (USGS), USACE
- 12 MARB States Represented by Agricultural, Conservation, or Environmental Agencies
 - AR, IL, IA, LA, MN, MS, MO, OH, TN, WI, IN, KY

Led By:

- EPA (fed); MS (state – 2010-11)

Structure:

- Task Force (policy & decision-making)
- Coordinating Committee (planning, implementation, evaluation)



About the Task Force

Addresses:

- Complex Science and Policy Issues Surrounding Gulf Hypoxia
- Collaborative Actions to Reduce Excessive Nutrient Loadings In-basin and to the Gulf of Mexico

Supported By:

- EPA Hypoxia Team

Excessive Nutrients: A Major Threat



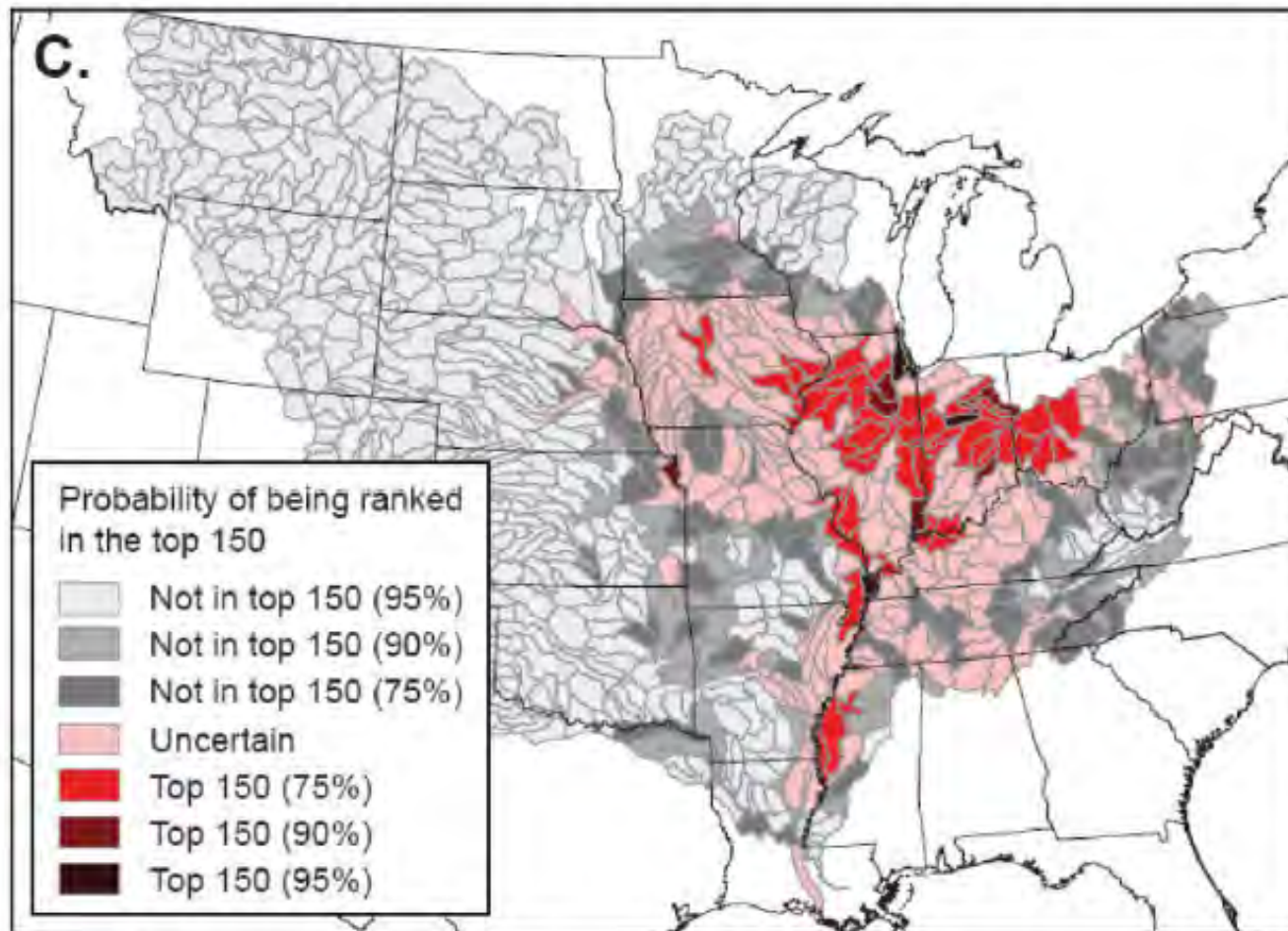
Nutrient Over-enrichment →

Eutrophication →

Downstream Impacts
(i.e., Low DO, Fish Kills, Habitat
Loss, Gulf Hypoxia)

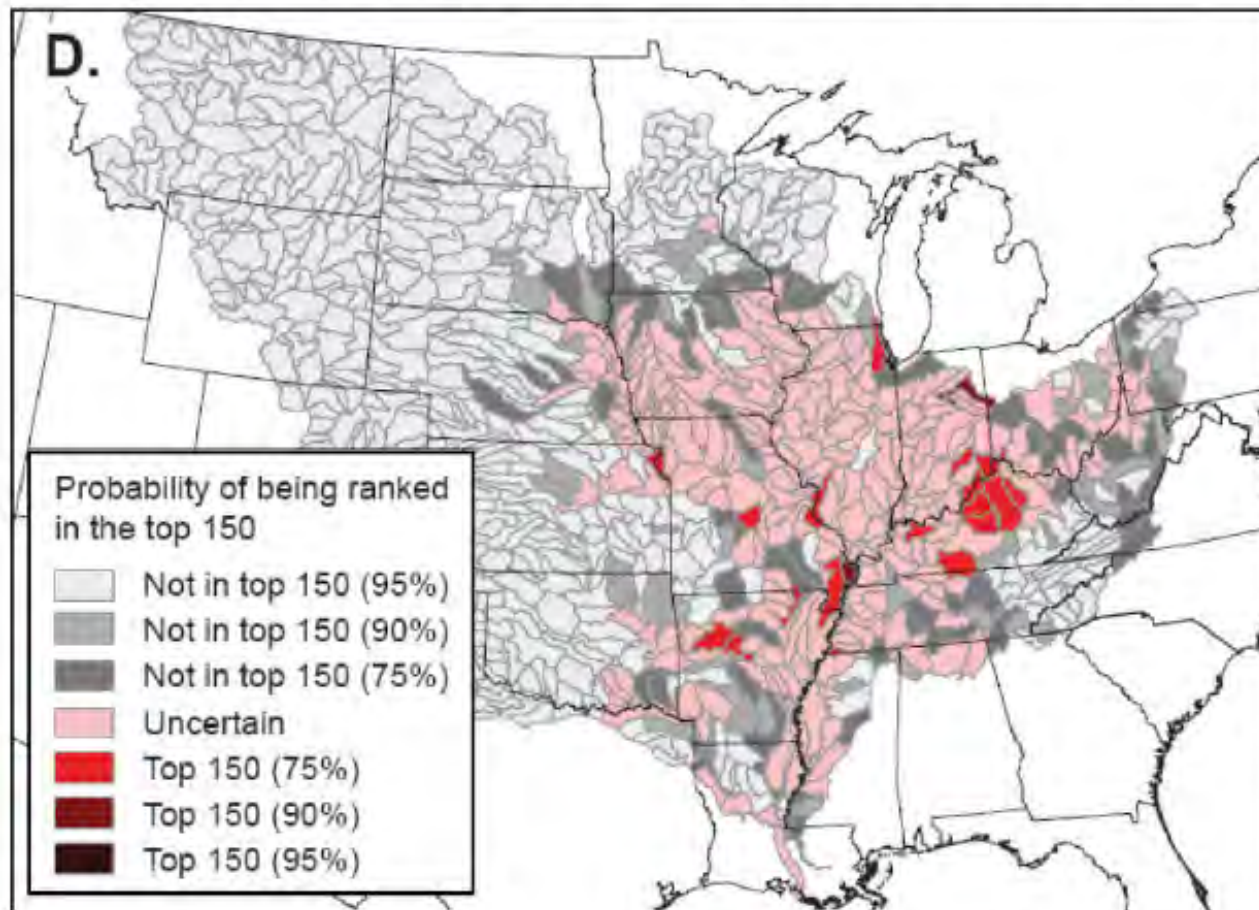
Where Do the Nutrients Come From?

Rankings of Top 150 HUC8 Watersheds for Total Nitrogen

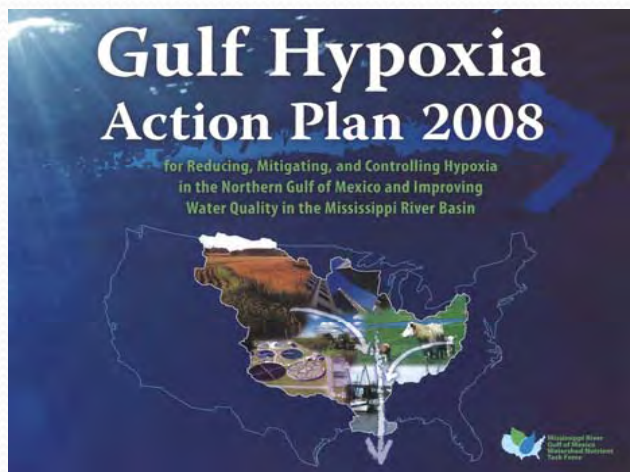


Where Do the Nutrients Come From?

Rankings of Top 150 HUC8 Watersheds for Total Phosphorus



Gulf Hypoxia Action Plan 2008



- Final Product of 4-year Reassessment of the 2001 Action Plan
 - 4 Science Symposia (2005-2006)
 - EPA SAB Hypoxia Advisory Panel Report, December 2007
 - 6 Task Force Meetings
 - Over 750 Public Comments
- 11 Over-arching Actions
- Goals
 - In-Basin
 - Coastal – 45% TN, TP
 - Quality of Life

Gulf Hypoxia Action Plan 2008

- Greater Specificity and Accountability
- Establish Measurable Outcomes
- Track Program and Environmental Progress
- Adapt to New Scientific Findings
- Maximize Opportunities for Stakeholder Involvement
- Encourage Voluntary, Incentive-based, Practical and Cost-effective Actions
- Use Existing Programs
- Follow Adaptive Management

2010 Activities of Task Force

- Established Work Groups and Developed Requests to the Task Force for the Following Priority Activities:
 - State Nutrient Reduction Strategies
 - Task Force Accountability Framework
 - Monitoring, Modeling, and Reporting
 - Iowa Drainage Initiative
 - USDA Farmable Wetlands Program
 - Charter



Fall 2010 Task Force Decisions

- Establish Measures Work Group to Develop Quantifiable Measures
 - Outputs and Outcomes (including incremental)
 - Direct MMR Work Group to Provide Support
- Re-establish MART Work Group for Activity Tracking Purposes
- Others



Task Force Next Steps: Measuring Results

- Developing Measures of Progress
 - Outputs and Outcomes
- Developing Accountability Framework
- Nutrient Reduction Strategies





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For More Information:

www.epa.gov/msbasin

Thank You!

