

Mississippi River/Gulf of Mexico Watershed Nutrient Task Force: Action Plan Reassessment Proposal

Approved June 3, 2005

Action item # 11 of the Action Plan calls for a reassessment with updated information including progress in achieving the three goals of the Action Plan, and decisions on a future course of action. At their meeting in September 2004, the Task Force charged the Coordinating Committee to develop a proposal for the reassessment. Since then, the Coordinating Committee, led by a subcommittee including representatives for Illinois, Iowa, USGS, NOAA and EPA have discussed possible options. This proposal reflects the outcomes of those discussions and the recommendations of the Coordinating Committee.

Description of Reassessment Actions

The reassessment includes a series of actions that will develop the information necessary for the Task Force to review the 2001 Action Plan and make revisions as necessary. It will be completed over the next two years. These actions include reassessment of the primary causes of Gulf hypoxia and management approaches to address these causes. The reassessment will result the following outcomes, in order to produce a revised Action Plan:

- A Peer Review of the August 2004, Region 4 White Paper on the role of nitrogen and phosphorus in causing Gulf Hypoxia
- A bibliography of all references pertinent to the science of Gulf hypoxia and nutrients in the Mississippi River Basin
- A summary of available information on implementation of federal and state management programs and activities
- An inventory of existing point sources throughout the Mississippi River Basin
- A public science symposium on the causes of Gulf hypoxia to feed into the Expert Science Panel report.
- An Expert Science Panel report that describes the best scientific understanding of the causes, sources, and controlling processes of the formation, extent and duration of hypoxia in the northern Gulf of Mexico
- At least two sub-basin workshops on management science
- A synthesis of management recommendations and options revisions to the Action Plan (which may include additional expert or peer review)
- Public participation and opportunities for comment and review

These actions should result in the revised action plan completed by end of 2007 and will cost an estimated \$420,000. (NOTE: This budget is only for the reassessment activities described in this proposal. Additional funds will be required for other activities in support of Gulf hypoxia including but not limited to support for the sub-basin teams and monitoring, modeling, and research efforts.)

The actions for calendar year 2005 include the Region 4 White Paper Peer review, the information updates, the symposia on the causes of Gulf hypoxia, the formation and charge to the Expert Science Panel, and one or more of the sub-basin workshops. More detail will be added to the other actions as the expert science panel is commissioned and other initial actions are implemented.

Peer Review of the August 2004, Region 4 White Paper on Causes of Hypoxia

At the request of the Task Force, EPA completed an independent peer review of the EPA Region 4 White Paper. A panel of nine randomly selected experts responded to specific questions about the report. Public comments were also solicited and received. EPA has agreed to use the review as a basis for deciding whether, and in what form, to publish the white paper.

Updates of Federal Data, Bibliography, Federal and State Programs, and Source Inventory

Federal agencies have adjusted existing programs to better address the information needs identified by the Task Force both through the Action Plan and Monitoring, Modeling and Research (MMR) Strategy. In some cases, these adjustments have come within existing resources; while in other cases, resources have been increased to fill information gaps. Federal Agencies will make available publications of new information developed as a result of these adjustments. In addition two teams, as sub-committees of the Coordinating Committee, will provide information for the reassessment as follows:

The Science Reassessment Team (SRT) -- will develop a bibliography of all references pertinent to the science of Gulf hypoxia and nutrients in the Mississippi River Basin. The bibliography will include references cited in the initial (CENR) science assessment conducted from 1998-2001. It will be supplemented by a request to all Task Force participating agencies for references that may have been omitted from the initial science assessment and any new research published since 1998. The Monitoring, Modeling, and Research Workgroup (led by USGS and NOAA), which developed the MMR Strategy for the Task Force, will coordinate this team, with appropriate leadership and participation from states and other federal agencies.

The Management Action Reassessment Team (MART) – will develop two reports, collating information on point sources and available programs. The first report will present an inventory of point source location and loadings throughout the Mississippi River Basin. EPA is compiling this information from available federal data. The second report will update information on implementation of federal and state management activities to address the cause of hypoxia. The MART will request information on management activities from all Task Force members, particularly USDA, ACOE and states. While this effort has not begun, the MART will compile the information submitted. EPA and USDA Coordinating

Committee members (awaiting USDA co-chair) will coordinate this team with appropriate leadership and participation from states and other federal agencies.

Symposium on the Causes of Gulf Hypoxia

To support the work of the Expert Science Panel, the Task Force will convene a symposium on the causes of Gulf Hypoxia, including examination of the factors that contribute to the timing, duration and extent of the hypoxic zone. This public symposium will serve as a kick-off of the reassessment process for all the interested stakeholders and provide an opportunity to present the most recent research on causes of Gulf hypoxia. This workshop will be coordinated with the Expert Science Panel and serve to provide current information for their analysis.

Expert Science Panel Report on the Cause of Gulf Hypoxia

The purpose of this action is to develop an updated, independent assessment of the causes of Gulf Hypoxia and recommend whether the most recent body of scientific evidence supports or suggests revisions to the assessment that formed the basis of the 2001 Action Plan. After review of several options, the Coordinating Committee is recommending that an expert panel be chartered through EPA's Science Advisory Board (SAB) to review available scientific information and provide a report that synthesizes the current state of knowledge of the causes of Gulf hypoxia. The expert panel will develop a report that answers the following general question (a specific charge will be developed after approval of the recommended SAB option by the Task Force):

Using the Integrated Science Assessment (CENR, 2000), the six supporting reports, and other scientific contributions, what is the current scientific understanding of the causes, controlling processes and sources of formation, extent and duration of hypoxia in the northern Gulf of Mexico?

Description of SAB Process The SAB option is recommended to the Task Force because of the opportunities for public access, timeliness and cost. All SAB panel meetings and deliberations are open to the public in accordance with Federal Advisory Committee Act and EPA administrative policies for advisory committee management. SAB will hold at least two meetings, one for initial discussion of their charge and the second for deliberations on their findings, both of which will be open to the public. As described in the SAB charter, all advice and recommendations developed by the SAB are provided directly to the EPA Administrator.

As part of the process to develop the Gulf Hypoxia report, the SAB will select a chair and seek public input on panel members. The Task Force, as well as other members of the public, will be able to make recommendations for panel members. The SAB will develop a short list of potential names that will be announced for additional public review and from that list, a panel will be selected. How the panel would proceed is ultimately dependent on the chair and final make up of the Committee.

Under the SAB's charter, the Assistant Administrator of the official sponsoring Program Office (Ben Grumbles for the Office of Water), will act as the Task Force representative to the SAB, including the SAB Designated Federal Officer (DFO), Panel Chair, and members of the SAB panel. Charge negotiations and any communication, including the submission of questions pertaining to draft reports, will have to be communicated by Ben Grumbles to the DFO and the Chair of the panel. However, the Task Force, as well as any other interested parties at any time may submit additional information for the panel to consider. Upon completion, the draft report will be released for public comment. The panel charge is typically drafted by the Sponsoring Program Office at EPA. For this panel, EPA's Office of Water will be the conduit for the Task Force to provide input to the development of the charge and any follow-up questions that may arise. The Panel must address the charge questions, but may also opt to discuss additional issues. The specific approach the Panel may undertake is dependent on the Chair, working with EPA's DFO, and the Panel.

Sub-Basin Workshops on Management Science and Policy

The Task Force will support and participate in a minimum of two workshops hosted by the major sub-basin committees in the Upper Mississippi and the Lower Mississippi. These workshops will provide opportunities for researchers and program managers to discuss management science and activities relevant to each of the sub-basins and recommend actions to reduce the causes of Gulf hypoxia within the context of the broader goals of the 2001 Action Plan. Each workshop will produce a report on the major discussions and recommendations from the workshop. While additional workshops may be needed as the reassessment proceeds, at a minimum, two workshops are proposed:

Upper Mississippi Workshop This workshop is well under development by the Upper Mississippi Sub-basin. The Sub-basin Committee will hold the workshop September 26-28, 2005 at Iowa State University in Ames, Iowa . The workshop organizers have solicited expert panels to provide answers to 15 major questions relevant to the major crops and practices in the Corn Belt states . The focus is on the specific needs of the upper basin, particularly agricultural sources. The Upper Mississippi Sub-Basin committee anticipates holding a second conference after completion of the Expert Science Panel Report on the Cause of Gulf Hypoxia to more specifically address the causes, controlling processes and sources.

Lower Mississippi Sub-Basin Workshop This workshop will be hosted by the Lower Mississippi Sub-basin Committee to address management issues in the lower Mississippi and Atchafalaya Basins from the Mississippi and Ohio Rivers confluence to the Gulf of Mexico. The focus will be on agricultural and point sources as well as hydrologic modifications and freshwater wetlands.

Management Recommendations Synthesis and Revisions to the Action Plan

The Coordinating Committee will evaluate and synthesize the recommendations for management from the SAB review, the workshops and the public comments into a set of recommendations and options for the entire basin. This synthesis will form the basis of the recommendation to the Task Force.

Public Review and Comment

The public will provide comment and input to the formation of the Expert Science Panel as well as to their report development. The public will participate in the sub-basin workshops. The draft Action Plan revision will be made available for public review and comment at the conclusion of the activities described above.

Schedule

<i>Action</i>	<i>Start</i>	<i>Completion</i>
1. EPA Region 4 White Paper Peer Review	January 2005	June 2005
2. Compilation of Information Updates And Bibliography	Fall 2004	Late Summer 2005
3. Upper Mississippi Workshop	Ongoing	September 2005
4. Science Symposia On Causes Of Gulf Hypoxia		Spring 2006
5. Lower Mississippi Workshop		Summer 2006
6. SAB Expert Review Of Causes Of Gulf Hypoxia	Summer 2005	Summer 2006
7. Recommendation Synthesis And Draft Revisions	Summer 2006	December 2006
8. Task Force Adoption of Draft Revised Action Plan		Spring 2007
9. Public Review And Comment	Summer 2007	Fall 2007
10. Task Force Adoption of Final Action Plan		November 2007

Two Year Budget Estimate for the Gulf Hypoxia Reassessment

While some of these estimates need to be refined with the leads for the different activities, this table estimates the expected costs to complete the reassessment through the fall of 2007. (NOTE: This table only includes estimated costs for the reassessment. There are significant other costs for support of the Gulf hypoxia efforts that are not included, such as support for the sub-basin teams and for monitoring, modeling and research.)

Item	Activity	Total Cost
R4 White Paper Peer Review	Contractor Support	\$ 40,000
SRT	Bibliography	\$ -
MART	inventory of management actions	\$ 50,000
	inventory of point sources	\$ 35,000
Gulf Science Symposia	One time, multi day meeting, (including travel and honoraria)	\$ 50,000
Upper Basin Science Symposia	One time, multi day meeting, (including travel and honoraria)	\$ 50,000
Lower Basin Science Symposia	One time, multi day meeting, (including travel and honoraria)	\$ 50,000
Contractor support to respond to public comment		\$ 50,000
Task Force/Coordinating Committee meeting support	7 Meetings (4 TF, 3 CC)	\$ 95,000
Total		\$ 420,000