Meeting Summary

Tenth Meeting of the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force

November 19, 2003
Saint Louis, Missouri

Task Force Participants

Federal

Ed Theriot, Director of the U.S. Army Corps of Engineers, Environmental Laboratory at the Waterways Experiment Station in Vicksburg (sitting in for Brigadier General Reilly)
Tom Christensen, Current Director of Conservation Operations, U.S Department of Agriculture - Natural Resources Conservation Service (sitting in for Dr. Mack Gray)
G. Tracy Mehan, Assistant Administrator, U.S. Environmental Protection Agency – Office of Water
Mike O'Neill, National Program Leader for Water Quality, U.S Department of Agriculture – Cooperative State Research, Education and Extension Service (sitting in for Dr. Joseph Jen)
Kameran Onley, White House Council on Environmental Quality
Chris Schabacker, Department of the Interior – Water and Science

State

Phil Bass, Mississippi Department of Environmental Quality (sitting in for Charles Chisholm)
Joe Engeln, Missouri Department of Natural Resources (sitting in for Stephen Mahfoud)
Earl Smith, Arkansas Soil and Water Conservation Commission (sitting for Randy Young)
Patty Judge, Secretary of Agriculture, Iowa
Charles Hartke, Illinois Department of Agriculture
Len Bahr, Louisiana Governor's Office of Coastal Activities
Wayne Anderson, Agricultural Policy Director, Minnesota Pollution Control Agency (sitting in for Sheryl Corrigan)
Dugan Sabins, Louisiana Department of Environmental Quality (sitting in for Len Bahr)

Objectives

G. Tracy Mehan, EPA's Assistant Administrator for Water, chaired the 10th meeting of the Mississippi River/ Gulf of Mexico Watershed Nutrient Task Force. Mr. Mehan set forth several objectives for the meeting:

- Provide an update to the Task Force on recent activities and progress on the *Hypoxia Action Plan*
- Share innovative approaches to nutrient management and the implementation process and schedules; and
- Consider activities to be worked towards over the next year

Opening Remarks

In his opening remarks, Mr. Mehan noted that non-traditional pollutant sources have made the problem of water quality improvement more challenging in recent times. For example, 90 percent of loadings to the Gulf of Mexico are from diffuse nonpoint sources, most of which are unregulated. To address these sources, he said, new partnerships, tools, and incentive systems will have to be invoked.

Mr. Mehan stated that in 1999 the *Hypoxia Action Plan* suggested that a 30 percent reduction in nutrient discharges from the Mississippi River Basin would be needed to reach the goal of maintaining the 5-year running areal average of the Gulf Hypoxic Zone at or below 5,000 square kilometers. This provided some background to the presentation by Dr. Nancy Rabalais, who has studied the distribution and dynamics of Hypoxic Zone since the mid 1980s.

Mr. Mehan also noted that the meeting's agenda would track the Action Items in the *Hypoxia Action Plan*.

Current State of Hypoxia in the Gulf, 2003 – Dr. Nancy Rabalais, Louisiana Universities Marine Consortium

Dr. Rabalais provided a summary of ongoing and recent monitoring activities in the Gulf of Mexico, as well as an update on the areal coverage of the Hypoxic Zone in the summer of 2003. See Attachment A.

In her presentation, Dr. Rabalais provided some background information on the physical oceanography, and nutrient inputs from riverine discharges that have been associated with the Hypoxic Zone. She outlined ongoing research activities, and described the results of the 2003 summer surveying cruises conducted by NGOMEX, the EPA Gulf Breeze program, Seamap, and NOAA, including NOAA's fisheries-focused Coastal Ocean Program. The 2003 extent of the Hypoxic Zone was affected by summer tropical storms and hurricanes. Immediately following the churning of Gulf waters by these storm events, the areal extent of the Hypoxic Zone shrank. However, larger Hypoxic Zones were measured both before and after the storm events. Because of such variability, Dr. Rabalais noted, the 5-year running average is a key number to be used for the purpose of areal coverage comparison. Dr. Rabalais estimated that to reach the *Hypoxia Action Plan* goal of a 5,000-square-kilometer Hypoxic Zone, a reduction in nutrient loads of 35 percent - 45 percent will now be required — a different estimate than the earlier 30 percent load reduction outlined in the *Hypoxia Action Plan*.

Comments

In response to a question regarding the impact to the Hypoxic Zone of a changed discharge regime, where most of the discharge into the Gulf would be from the Atchafalaya River as opposed to the Mississippi, Dr. Rabalais noted that the Atchafalaya does not act as a sink for nutrients. The volume of water and the nutrient load would remain the same. The geographic dispersal of nutrients, however would tend to concentrate Hypoxic conditions over the southwestern shelf.

Len Bahr noted that the emphasis on physical stratification and physical ocean patterns brings to light potential ways to reduce hypoxia through injecting water into the Gulf, increasing turbulence, and decreasing stratification. He suggested that increasing flow and navigation in the southwest pass might help hypoxia reduction efforts and that more modeling efforts are needed to quantify this thesis.

Dr. Rabalais replied that the physics of water movement between the delta and the Gulf entailed large water volumes and the 1,000-year development of a coastal delta. It would be very difficult to change the inertia or momentum of such physics through small engineering manipulations.

Action 2 – Status of Sub-basin Committees

Mr. Mehan introduced reports from two fledgling Sub-basins. These reports, he said, would help inform future decisions related to Sub-basins, how to proceed, what works, and what doesn't work.

Lower Mississippi River Sub-basin Team – Earl Smith, Arkansas

Mr. Smith updated the Task Force on the Lower Mississippi River Sub-basin Team's experience of coming together, their strategies and its accomplishments to date. A key strategy for each state was to select priority or showcase watersheds, where selected BMPs for nitrogen load reduction could be monitored, to help quantify environmental response effectiveness. He outlined selection criteria that the subcommittee would use to find these sites. The emphasis would be on including existing projects that could dovetail into hypoxia reduction efforts. See Attachment B.

Ohio River Basin – Peter Tennant ORSANCO

Because of geographic distance, Mr. Tennant said, engaging this watershed into thinking about Gulf issues can be challenging. The Ohio River basin includes parts of 14 states, 8 of which are in the Ohio River Valley Water Sanitation Commission (ORSANCO). ORSANCO has represented the states of the Ohio River Basin in the Hypoxia Task Force meetings. Now, however, the chosen option is to form a separate sub-basin committee and have ORSANCO act as a convener of the sub-basin committee rather than in lieu of a sub-basin committee.

Regarding Gulf hypoxia, 32 percent of the nutrients discharged into the Gulf originate in the Ohio River Basin. Utilities have monitored nutrients as part of a greater effort to make sure that states are meeting their SDWA requirements. Thus there is a good sense of the cost of lowering the amount of nutrients in discharges from water treatment plants. Because this is a highly developed river basin with a mix of point and nonpoint sources, there is fertile ground for nutrient reduction credit trading. Pilot nutrient trading projects on the Ohio River are currently being explored. See Attachment C.

Comments

Tracy Mehan noted that feedback like that from the two sub-basin committees helps in identifying implementation barriers to the sub-basin teams. The Task Force anticipates getting similar updates on initiatives throughout the four other sub-basins identified in the *Hypoxia Action Plan*.

Follow up Actions for the Task Force – Diane Regas, USEPA

Diane Regas formally introduced the Coordination Committee and noted that it will look to the Task Force to consider follow-up actions to the activities mentioned during the meeting. For example, to support the Lower Mississippi River Sub-basin Team's strategy of identifying priority watersheds, the Task Force could hold a follow-up meeting with that committee to identify ways in which federal agencies could identify current programs and resources to support those showcase watershed efforts. Further, the Coordination Committee could recommend ways to obtain more participation in sub-basin committees at the state level.

Actions 3,4 and 5: Monitoring, Modeling and Research – Herb Buxton, USGS

Mr. Buxton presented details of how the Monitoring, Modeling and Research (MMR) Workgroup has finalized a strategy in support of managing excess nutrients in the Mississippi River Basin. The strategy document is the result of contributions from 106 technical specialists, but it was written by a smaller writing team. New literature such as the June 2003 *Nutrient Pollution in Coastal Waters: Priority Topics for an Integrated National Research Program for the United States* has also contributed. As each chapter of the strategy document was completed, it was circulated in an iterative review process among the workshop participants, and comments were

received from the workgroup and the Coordination Committee. Now the entire Coordination Committee has approved the document. The MMR strategy document does not draw conclusions related to the science; it focused instead on the types of activities and coordination that would be needed to guide the science. It shows how to provide and maintain scientific information to support the adaptive management approach identified in the *Hypoxia Action Plan*. A significant part of the MMR strategy was to include state strategies at both coastal and inland locations. It is planned that the document will be published as a USGS Circular Report. See Attachment D.

Comments

Ed Theriot said that the Coastal Louisiana Restoration Study Project that is coming to fruition is developing a significant science plan that relies heavily on a systems approach similar to the MMR Strategy.

Len Bahr added that although the Mississippi River Basin watershed is enormous, coastal Louisiana is the bottleneck through which all the water passes. This site affords an opportunity to affect the response in the Gulf. Monitoring and modeling efforts are an integral part of the coastal Louisiana Restoration project, which started out with marsh sites and has expanded to open water sites within the estuary system. Mr. Bahr emphasized coordination with the Task Force's hypoxia reduction effort to save money and add value to both efforts.

Patty Judge mentioned that as a member of the Task Force, she had not yet seen and approved the MMR strategy document.

Herb Buxton noted that the Coordination Committee has reviewed and commented on the MMR strategy document, and that copies of the document can be made available to the Task Force immediately.

Tracy Mehan said that the MMR Workgroup needs direction from the Task Force and that the Task Force needs a review period even though the Coordination Committee has already reviewed the document. He suggested that the Task Force review the document for a 45-day period, and finalize their comments in a conference call. In a related item, Mr. Mehan pointed out that the Task Force must approve the FY2004 Cruise Plan and the Implementation strategy. Financial strategies available to support the baseline monitoring remain undetermined.

Joe Engeln pointed out that the next assessment though scheduled in the original *Hypoxia Action Plan* for FY2004, might realistically have to be delayed until FY2005. Considerable follow-up work is required to turn the framework into a working plan.

Actions 1 and 6: Opportunities in the Farm Bill for Nutrient Reductions – Tom Christensen, USDA

Mr. Christensen outlined several USDA programs and recent Farm Bill 2002 developments in nutrient reduction programs that might coalesce with goals in the *Hypoxia Action Plan.* He identified program options that can be used for land treatment, land conservation, land sequestration in easement programs, and stewardship, as well as programs that help to reduce environmental impacts associated with intense management and production. He also went over Conservation Security Planning for working lands, which rewards producers for good conservation practices. He outlined the status of several rules in the Farm Bill 2002, such as changes to the statutes related to the Environmental Quality Incentives Program (EQIP), including increases in the payment limits, changes in funding projections for EQIP through 2007, and provisions related to the life of the contract. Mr. Christensen also mentioned efforts specifically planned in the Mississippi River Basin through EQIP, the Wetlands Reserve Program and other programs. Finally he brought up the Conservation Effects Assessment Program (CEAP), which is designed to measure the environmental effectiveness of USDA conservation programs. It will use

cooperative effort among the USDA, USGS, EPA, and other agencies, and is expected to yield results in 2005. See Attachment E.

Kameran Onley asked what sort of targeting is used to maximize resource effectiveness.

Tom Christensen responded that although USDA provides national guidance, local working groups and state technical committees determine priority areas. The USDA relies heavily on a decentralized mode of operations.

Tracy Mehan asked how the USDA programs work to help improve the nation's impaired waters.

Tom Christensen replied that in the ranking process used to allot EQIP funds, TMDL-listed waters are given emphasis, as are waters affected by Concentrated Animal Feeding Operations (CAFOs) and non-regulated animal feeding operations. Although EQIP itself does not set priority areas, the ranking system for acquiring EQIP funds helps to target those monies. Thus, if TMDL waters or CAFOs are involved, those applications may stand a better chance of being funded. Mr. Christensen also mentioned that the national allocation formula for allocating EQIP funds is being reevaluated. The USDA-NRCS team is revising the formula to make 303(d)-listed waters a priority.

Wayne Anderson asked about the capabilities for making numeric estimates of loading reductions that result from Farm Bill accomplishments.

Mike O'Neill responded that the Conservation Effects Assessment Program (CEAP) would examine interactions between practices and larger-scale responses. This program will use science to evaluate the response at the watershed scale, not simply at the traditional plot-based or field-based scale.

Len Bahr raised a point about how the ethanol production included in the new energy bill will affect hypoxia and nutrient runoff to the Gulf.

In response to Charles Hartke's question regarding how livestock, so essential in Midwestern agriculture, will be supported by EQIP, Tom Christensen mentioned that although previously, there was a stipulation that EQIP funds could be used for animal waste storage only for facilities with more than 1000 animal units, now EQIP is size-neutral. Animal production is an enhanced focus of the EQIP program and without regard for operation size. An important component of the new CAFO rule is developing the Comprehensive Nutrient Management Plan (CNMP), which can be an expensive undertaking. It is calculated that the total cost to write CNMPs for 270,000 AFO and CAFO operations across the nation, including technical assistance would be $19 billion. 60 percent of EQIP funds across the nation go to livestock and poultry conservation needs.

Action Seven: Louisiana Coastal Area Study – Ed Theriot, U.S. Army Corps of Engineers, Mississippi Valley Division

Mr. Theriot provided an update on the Louisiana Coastal Area Comprehensive Coast-wide Ecosystem Restoration Study and its potential benefits for addressing the hypoxia reduction effort. In an effort expected to cost $14 billion over 30 years, the Restoration Study is to help reengineer the river's connection with its delta along the Louisiana coast, to help better sustain coastal wetlands and habitat. The project will involve:

- River Diversions
- Marsh Creation
- Barrier Restoration and Shoreline Protection and
- Hydrologic Restoration

A notable benefit of the Louisiana Coastal Area study is addressing hypoxia reduction goals. See Attachment F.

Comments

Earl Smith noted that although large-scale engineering could significantly affect hypoxia, Dr. Nancy Rabalais's presentation suggested otherwise.

Mr. Theriot responded that a 10 percent to 15 percent reduction in nutrient flux into the Gulf is expected, and he noted that a lot more science is required to predict the effect on the Hypoxic Zone.

Jo Engeln noted that the damming of the Missouri River has reduced the sediment supply into the flow going into the delta, adding that this effect was not necessarily a negative effect.

Tracy Mehan noted that Mr. Theriot was looking for a formal Task Force statement on the value of this Louisiana Coastal Area project and how it relates to hypoxia reduction efforts.

[Lunch]

Action 8: Clean Water Act Authorities – Tracy Mehan, USEPA

Mr. Mehan outlined programs and rules under the Clean Water Act (CWA) authorities that could have beneficial effects on hypoxia reduction efforts:

- EPA's CAFO Rule has tripled the number of permitted animal operations under the NPDES program. This is also a prime example of EPA–USDA collaboration to help mutually reinforce programs and implement the CAFO rule, as these federal agencies work with state, local, environmental and agricultural agencies.
- Phase II of the Stormwater NPDES Program involves an increase in regulation and controls on smaller construction sites and in many municipal separate storm sewer systems (MS4s). Within the Mississippi River Basin, 20 states have approved permits for construction and MS4s. This should help to control nutrient outflows.
- With respect to development of the TMDL program: There are further opportunities to use this program with respect to the Gulf of Mexico Hypoxia issue by increasing the focus on nutrient-related TMDLs in the Mississippi River Basin. Over time benefits will accrue to the Gulf program.

Actions 9 and 10: Current Opportunities

Diane Regas introduced the following EPA initiatives

- New funding through the Watershed Initiative. This initiative is a grant program to achieve measurable results on a watershed basis, using public-private partnerships, technical assistance, and training. In the FY2004 sequence of grants, there is a tie-in with gulf hypoxia. One-fourth of congressional funding for the Watershed Initiative will be used in the Mississippi River Basin and can be used to target Gulf Hypoxia.

- Point source incentives/New Award Proposal. EPA intends to assist and facilitate information technology transfer to encourage plants and operations (point sources) to use nitrogen-removal technologies in their wastewater treatment, similar to BASF's technology for nitrogen-reduction. EPA proposes an award program, "Friends of the Gulf," for industries that reduce nutrients.

USDA Agricultural Drainage Management Project – Wil Fontenot USDA-NRCS

Mr. Fontenot described a program to reduce nutrient outflow from agricultural drainage waters throughout in the Mississippi River Basin, by updating technology and retrofitting tile drainage at the outlet control point. Because the amount of nutrients is proportional to outflow, this method is effective in controlling nutrients. The object is to manage existing drains to lessen their environmental impact.

Results from experiments on corn and soybean fields show marked decreases in the nutrients available in drainage water from these controlled tile drain outlets.

Mr. Fontenot mentioned that in most freshwater systems, phosphorus is the nutrient of concern and many TMDLs are focused on phosphorus. Most states do not have nitrogen standards unless there is a drinking water concern, and nitrate reduction is not as high of a state priority. To promote the goals of Hypoxia reduction, Mr. Fontenot highlighted that legal backing and strong sponsorship are necessary to ensure that nitrogen gets the attention it deserves. See Attachment G.

Comments

Tom Christensen noted that the word used is *drainage*, but *drainage* has negative environmental connotations. This is really "agricultural water management", or "irrigation water management".

Iowa CREP Wetlands Creation Program – Dean Lemke, Iowa Department of Agriculture and Land Stewardship

Mr. Lemke described how a Farm Bill program, the Conservation Reserve and Enhancement Program (CREP) is being used in Iowa to increase the water quality in Iowa streams and rivers by restoring wetlands. The Iowa CREP is targeted to reduce nitrates to protect instate needs for drinking water and hypoxia reduction goals. The object is to treat nitrates as they run off the field. Research has shown that wetlands do a great job of reducing nitrates. Wetlands are used in the output zones of tile drainage to catch tile-drained water, and they denitrify the water before it runs into the streams of the area.

Models of nitrate removal are robust and match the actual outcomes closely. For the 2002 season, a 70 percent removal of the nitrate coming into the wetlands was found. The model had predicted exactly that. In applying the program to a watershed setting, off-site assessment techniques such as GIS modeling are needed to find optimal locations for wetland siting and drainage management.

Today CREP wetland sites add up to 2,400 acres of wetlands plus buffer, which treat 39,500 watershed acres. The expectation is that the sites will remove 40 to 90 percent of nitrate nitrogen. Wetlands are also aesthetically pleasing, natural looking sites that provide habitat. See Attachment H.

Sierra Club Petition – Tracy Mehan, USEPA

Mr. Mehan outlined the process whereby states are responsible for setting water quality standards, with EPA providing overview, guidance and ultimate authority through the approval process. Mr. Mehan then introduced a petition to EPA submitted by the Sierra Club's Ozark chapter in February 2003. It was a petition to publish consistent and adequate water quality standards along the Mississippi River from Burlington, Iowa to Memphis, Tennessee, and along the Missouri River, from Omaha, Nebraska to Saint Louis, Missouri. As a result of a prior court settlement, EPA will actively respond to this petition. EPA is working with the affected states to develop standards, including standards for nutrients that will be mutually reinforcing in their overall effect on the waterways under scrutiny. The petition raises many legal, technical standards, and consistency issues, and it affords an opportunity to engage in dialog with state stakeholders and revisit the nutrient problems in these rivers.

Public Comments

Doug Daigle, Mississippi River Basin Alliance

The Mississippi River Basin Alliance is a nonprofit organization of 150 member groups. The Alliance is submitting two letters to the Task Force — one from the Southern Shrimp Alliance Coalition, which consists of several shrimping and commercial fishing organizations from Texas to Florida, and the other, from the Mississippi Riverwise Partnership, a group of nonprofit organizations in the basin concerned with water quality and Gulf hypoxia. See Attachments I and J. The shrimpers organizations are requesting the Task Force to move forward with the *Hypoxia Action Plan* to address the challenges they face with the sustainability of their harvests.

The second letter addresses funding challenges that seem to inhibit the forward movement of the *Hypoxia Action Plan*. One of the key points of the plan was that federal funds would be available to help states undertake actions that they themselves could not, and that the Task Force would act as a cooperative team to help facilitate basin wide action and coordination. The letter notes that states willing to act on their nutrient-removal issues need help to take more action even in today's difficult fiscal situation. The letter urges the Task Force to reconvene the budget committee, to ask for an appropriation to cover administrative costs (beyond federal agency funds to EPA/NOAA etc), increased funding for phased implementation of the *Hypoxia Action Plan*, in keeping with the time line that was already approved in the plan. Funding for the MMR process is vital to keep their effort ongoing. Mr. Daigle pointed out that it is advisable to go as a larger coalition or entity when asking for special appropriations and funding from Congress.

Mr. Daigle also pointed out that it is important to assess state and Farm Bill programs already under way in order to figure out where resources might be allocated. He noted that reauthorization of the Harmful Algal Bloom and Hypoxia Research and Control Act, might be able to precipitate more action and funding.

Cynthia Sartou, Gulf Restoration Network, New Orleans LA

Ms. Sartou explained that her network represents organizations across the Gulf as opposed to up the river basin. She lauded the significant steps that Iowa has taken to address nutrients, and noted that federal agencies should reward states that have stepped up to the plate with additional funds to undertake even more effective water quality improvement work.

Although Ms. Sartou praised the obvious coordination and results of the MMR Workgroup she expressed concern that there was not enough of such coordination. To avoid a scattergun approach, she said, it is important to reward

states with NRCS funding allocations and other funding that work in a coordinated fashion toward reducing nutrients.

To Ms. Sartou, it is clear that the Task Force has to know the current status of basin-wide efforts in order to know where to proceed. She expressed disappointment however, that meetings repeatedly go over status and spend too little time on forward direction. In light of budget constraints, she asked for more pointed guidance on where federal agencies and the federal budget should be directed so that in the time remaining in the meeting, specific plans could be laid down for 2004/2005.

Susan Heathcote - Iowa Environmental Council

Ms. Heathcote explained that the Iowa Environmental Council is a coalition of 80 research and environmental organizations in Iowa for which water quality issues have been a top priority for about 10 years. Part of the challenge for Iowa's water quality is the agricultural production that covers 90 percent of the state, and loses nitrogen, which directly ties in with Gulf hypoxia.

Ms. Heathcote mentioned a water summit being held on November 25 – 26, 2003 by the Council. The summit involves multiple stakeholders such as state agencies (agriculture, natural resources), the state governor's office, associations of business and industry, Iowa Farm Bureau, and drinking water utilities. Of the five workgroups meeting intensively to develop recommendations to present at the summit, one is a nutrient workgroup whose express focus is nutrient reduction. Their draft recommendations include a nitrate reduction goal for Iowa drinking waters to meet the 10 ppm standard. They are also recommending a goal of 25 percent reduction in nitrate exports from Iowa. Although no specific timetable for this has been laid out, it is a positive step for the Gulf of Mexico.

Ms. Heathcote reiterated the need for better coordination to help in targeting resources within watersheds, to get better value for conservation dollars being spent. She also noted that much of Iowa's tile drainage is aging and needs to be refurbished, so this is a prime time to include new technologies, which will also benefit water quality. She mentioned that USDA funding for EQIP and other programs is not commensurate with the interest in the state in participating in conservation programs.

On the topic of impaired waters, Ms. Heathcote said that although the 303(d) list is important to help target efforts, it alone is inadequate to address nutrient problems. Iowa does not have nutrient criteria, and therefore the 303(d) list does not adequately reflect nutrient problems in the state. To help address this problem, the USGS models used to develop the *Hypoxia Action Plan* and that indicated which watersheds in the Mississippi River Basin are net sources of nitrates need to be used in the EQIP ranking process.

Ms. Heathcote mentioned the Partnerships and Cooperation Program, another new program in the Farm Bill 2002. She said that along with the Conservation Security Program it holds a lot of promise for land practitioners trying to work toward better water quality. She believes that in implementing these programs, more authority should be given to states, watershed groups and others because they would be better able to design programs that meet goals and to include different types of projects. This is in keeping with EPA's watershed initiative.

Dick Lanyon, Metropolitan Water Reclamation District of Greater Chicago

Mr. Lanyon represents a wastewater collection and treatment agency in the Chicago area. He said that Chicago is the largest point source contributing nitrogen and phosphorus to the Gulf, creating at least 50 percent of the nitrates, and 80 percent of the phosphorus loading for the sub-basin.

He noted that the Integrated Assessment document lacks a schedule of delivery items. He thinks that the Upper Mississippi River Basin sub-basin committee should get started and that Illinois should work with neighboring states in this effort, which is not happening. He urged that a time schedule be set for the Upper Mississippi River Basin sub-basin committee.

Mr. Lanyon noted that in Illinois, the nutrient standards development plan does not mention Hypoxia. It focuses almost entirely on phosphorus. With respect to nitrogen, it says only that it remains to be determined whether nitrogen standards are needed for Illinois waters. Mr. Lanyon said that good, hard scientific information was needed from the MMR strategy to support a nutrient standards development program in Illinois especially for nitrogen. The targeted reduction of 30 to 35 percent may be inadequate.

The Illinois Association of Wastewater Agencies comprises 800 POTWs in Illinois. Mr. Lanyon noted that they have studied the cost of nitrogen and phosphorus removal using conventional technologies such as pumps and blowers to get better quality effluent. They have found that that approach is expensive and would use fossil fuels, generating air emissions. Alternative plans such as nutrient management and sequestration using wetlands would cost less. POTWs are interested in funding research and demonstration proposals, such as presented by Dr. Hey from the Wetlands Institute at an earlier meeting and Mr. Lanyon is eager to see such initiatives move forward as acceptable and feasible projects within the regulatory framework.

Jack Norman, Sierra Club Midwest Conservation Committee

Mr. Norman said that the goals and implementation principles of the *Hypoxia Action Plan* lack a firm time schedule and do not describe adequately what the desired outcome should be. He asked when the research outlined in the MMR is expected to enable the Task Force to establish quantifiable goals whose attainment will be verifiable.

Larry Beran, Texas Institute of Applied Environmental Research

Mr. Beran noted that his Institute would facilitate the Industry-Led Solutions meeting over the next day and a half where producers would join with state conservationists, members of the environmental community, and regional administrators to discuss the role of agricultural leadership in addressing environmental issues associated with agricultural production.

Summary of Action Items for 2004/ 2005

Bryon Griffith, Acting Director of EPA's Gulf of Mexico Office, and Diane Regas, Director of EPA's Office of Wetlands Oceans and Watersheds, reviewed the possible action items discussed in the course of the day's presentations, as a basis of formulating steps to move forward. Their presentation was related to elements in the *Hypoxia Action Plan* and followed the meeting agenda. A lead agency/agencies or committee was also noted, to take on responsibility for each action item. See Attachment K.

Action Item 2: Lower Mississippi River Basin Team

The recommendation was to hold a follow-up meeting to explore collaborative support for these priority watershed projects. It is important that the federal members of the Coordination Committee should convene to explore how to support these showcase watershed projects. Lead: Federal Coordination Committee members

Action Item 2: Sub-basin Programs Assessment

The recommendation was to assess and identify implementation barriers that prevent getting resources to the sub-basin teams. The Coordination Committee should do an implementation barrier assessment and bring recommendations to overcome these barriers to the next meeting. Lead: Coordination Committee

Action Items 3 – 5: MMR Final Report

Submit the MMR Report to the Task Force for a 45 day final review (target: January 5, 2004) Tracy Mehan offered an alternative: by December 21st, all Task Force members should respond to Tracy regarding whether they can sign off on the report; otherwise they may request a consultation or a conference call. If all are on-board with the contents of the report, it may be considered approved, it not the full 45 day period will be needed. (Herb Buxton agreed to e-mail the PDF file of the report to the Task Force members by the next morning for immediate review.) Lead: Task Force

Action Items 3 –5: FY2004 Monitoring of the Hypoxia Zone

Regarding FY2004 support for monitoring efforts in a coordinated (NOAA/EPA/LUMCON) Cruise Plan and Implementation Strategy, the recommendation was for closer coordination of three elements of the summer cruises: EPA's Gulf Ecology Division, Sea Map, and LUMCON Cruise work. Joe Engeln pointed out that it is probably too late to do planning for 2004, so assessments may have to be pushed back to 2005. Diane Regas suggested that the Coordination Committee is not planning to finish an assessment in 2004, unless Task Force directs otherwise. The schedule has been shifted to 2005. If the Task Force wants the Coordination Committee to accelerate the schedule, sooner action will be needed. Lead: MMR and Coordination Committee

Action Item 6: Measuring Progress

The recommendation is that the Coordination Committee should come up with options for effectively measuring progress towards the goals in the *Hypoxia Action Plan* . The Coordination Committee will present options to consider on tracking and measurement efforts for the Task Force; they will present them to the Task Force in a conference call in the first half of 2004. Lead: EPA/USDA/USACE/NOAA

Action Item 7: Nutrient Reduction Actions by the Corps of Engineers

The Task Force wants to recognize the positive effects that the USACE Louisiana Coastal Area (LCA) program can have on Gulf hypoxia reduction. The Task Force wants to recognize the linkages between diversions that restore coastal wetlands and reduced nutrient inputs into the Gulf. The recommendation is that the USACE will lead the writing of, and the Coordination Committee will submit input to, a resolution regarding the LCA for the Task Force to review and submit. This resolution would be forthcoming from the whole Task Force. Lead: USACE/ Coordination Committee

Action Item 8: Seek Expansion of Point Source Innovations

The recommendation is to continue seeking reductions from point source programs, including innovative point sources reductions like the example of BASF. EPA will conduct outreach with Mississippi River Basin industries, highlighting efforts such as BASF's that have done better than permit limits. Dugan Sabins noted that the State of Louisiana will be willing to help out with industries already interested. Lead: EPA

Action Items 9 and 10: Expansion of Nonpoint Source Innovations

Every effort will be made to solicit continued action engagement for innovative nutrient reduction strategies by the agricultural community. Tom Christensen said that state departments of agriculture should take the lead in this effort as opposed to the USDA. Lead: USDA/EPA

Action Items 9 and 10: Watershed Initiative

The recommendation is to follow up on selecting watersheds that can help reduce nutrients flowing down the Mississippi River Basin into the Gulf. Lead: EPA

Action Items 9 and 10: Nutrient Reduction Awards Program

The question was posed whether the Awards Program should be endorsed by the Task Force as its own award, or whether it might simply be an internal EPA award program. The recommendation was that the award may be used as a Task Force tool but that EPA should facilitate the logistics behind the award program. Lead: Task Force/ EPA

Task Force Summary Comments

Joe Engeln suggested that following acceptance of the MMR Report, a Coordination Committee meeting may be necessary in the next couple of months (December or January) to plan implementation of the monitoring schedule and funding. He noted that measuring progress is a fairly significant undertaking and will require quite a lot of work, and that the phone isn't an optimal way to accomplish tasks.

Patty Judge requested that the Task Force be kept appraised as the Coordination Committee completes its work so that the Task Force can be ready to take action at the next meeting. Ms. Judge also said that the Iowa staff has put together a proposal to the Upper Mississippi River Basin states to form a sub-basin group. Iowa is ready to take on responsibility and leadership for this sub-basin group with some funding assistance.

Tom Christensen noted that the Partnerships and Cooperation Provision in the 2002 Farm Bill, though mentioned in the public comment period, has not yet undergone the rule-making process and does not have implementation plans. He said it is a discretionary provision, so whether the Secretary will in fact implement this provision remains uncertain. It is dependent on other Farm Bill 2002 programs. The consensus at USDA is that those other programs are the first priority. The Partnerships and Cooperation Provision will be addressed once those programs are in place.

Mr. Christensen further explained the EQIP mentioned in the public comment period. He said the EQIP allocation formula to the states is undergoing revision and its final outcome is unknown. However, there is an *incentives* provisions in EQIP that was exercised in FY 2003; under that provision, some states were rewarded if they met certain criteria that were deemed by the agency to reflect good and efficient program management, and were consistent with priorities; in other cases, money was held back.

With respect to environmental credit trading, Mr. Christensen said there is a great interest on the part of USDA leadership in how USDA programs can take advantage of market-based voluntary approaches to improving environmental performance. Ten USDA agencies are simultaneously working to develop their roles and responsibilities in managing and facilitating environmental credit trading in the programs they administer.

Charles Hartke said that the Illinois Department of Agriculture applauds the Iowa effort to undertake work on the Upper Mississippi River Basin, and is willing to help.

Dugan Sabins said that although Louisiana has political changes looming on the horizon, it is committed to the coastal restoration process, including spreading the news about its coastal programs, how they work, and how they will affect the hypoxia program. He emphasized the apolitical nature of the commitment.

Wayne Anderson noted that despite the recent lack of federal funding, this Task Force meeting ended on a good note because of the energy evident in the efforts. Although states are still hoping for federal funding, they are doing their part. A key strategy has been improving water quality at the state level, state by state, not just leaving it as a Gulf of Mexico challenge.

Tracy Mehan closed by reiterating that the Task Force's commitment to hypoxia reduction efforts is ongoing and will continue for the long haul. He is hopeful about the longevity of the program because of the various efforts going on across this large watershed that runs through the heartland of America, while remaining aware that in the short term this effort will take work.

[Meeting adjourned]

Note: Attachments not included in this summary

Attachment A
Dr. Nancy Rabalais, Louisiana Universities Marine Consortium
Current State of Hypoxia in the Gulf, 2003

Attachment B
Earl Smith, Arkansas Soil and Water Conservation Commission
Sub-basin Committee Report: Lower Mississippi

Attachment C
Peter Tennant, Ohio River Valley Water Sanitation Commission
Sub-basin Committee Report: Ohio River Valley

Attachment D
Herb Buxton, U.S. Geological Survey
Monitoring, Modeling and Research (MMR) Workgroup

Attachment E
Tom Christensen, U.S. Department of Agriculture
Opportunities in the Farm Bill for Nutrient Reductions

Attachment F
Ed Theriot, U.S. Army Corps of Engineers
Louisiana Coastal Area Study

Attachment G
Wil Fontenot, U.S Department of Agriculture

USDA Agricultural Drainage Management Project

Attachment H
Dean Lemke, Iowa Department of Agriculture and Land Stewardship
Iowa CREP Wetlands Creation

Attachment I
Doug Daigle, Mississippi River Basin Alliance
Letter to the Task Force from the Southern Shrimp Alliance Coalition

Attachment J
Doug Daigle, Mississippi River Basin Alliance
Letter to the Task Force from Mississippi Riverwise Partnership – a coalition of nonprofit organizations concerned with the Mississippi River.

Attachment K
Bryon Griffith and Diane Regas, U.S. Environmental Protection Agency
Summary of Action Items for 2004/2005