

**Minutes of the
U.S. Environmental Protection Agency
Science Advisory Board
Hypoxia Advisory Panel
Teleconference
May 7, 2007**

Committee Members: Dr. Virginia Dale, Chair
Dr. Judy Meyer
Dr. Bill Crumpton
Dr. Mark David
Dr. Daniel Conley
Dr. Richard Lowrance
Dr. Clifford Snyder
Dr. Denis Gilbert
Dr. Don Wright
Dr. James Opaluch
Dr. Kyle Mankin
Dr. Tom Simpson
Dr. Ken Reckhow
Dr. Bob Howarth
Dr. Cathy Kling
Dr. Tom Bianchi
Dr. Hans Paerl

Date and Time: May 7, 2007, 1:00- 4:00pm

Purpose: The Hypoxia Advisory Panel discussed the recommendations in their advisory report.

SAB Staff: Dr. Holly Stallworth, Designated Federal Officer
Dr. Thomas Armitage, Designated Federal Officer
Mr. David Wangsness, U.S. Geological Survey and Designated Federal Officer

Other: Jim Baker, consultant to Iowa Department of Agriculture and Land Stewardship
Dean Lemke, Iowa Department of Agriculture and Land Stewardship

Attachments: Agenda

Meeting Summary

The discussion followed the issues and general timing as presented in the meeting agenda. Dr. Stallworth convened the meeting and explained the Hypoxia Advisory Panel (HAP) will operate under the Federal Advisory Committee Act. Dr. Dale reviewed the agenda.

Dr. Dale led members through a page-by-page review of “key findings and recommendations” presented in each section of the draft report. Members discussed a number of issues, including the following: the need to incorporate a systems approach; the role of organic matter from coastal wetlands; the importance of spring loads; the role of N:P ratios; the need for multiple scale modeling; and the influence of the distribution of manure on nutrient budgets. With each discussion, Dr. Dale requested revisions from particular members. These assignments are listed below.

For section 2.1.2 – The Physical Context, recommendations on page 16:

- Tom Bianchi will add a sentence mentioning more complex models.
- Denis Gilbert will add more about volume issues (and the need for better monitoring of the extent of hypoxia in all three dimensions?) as well as the need to reproduce the past with modeling (e.g., modeling pre-1950 flows in the Atchafalaya).
- Ken Reckhow will provide language about the need for a systems approach and connecting one model to another (e.g., looking at the correct variables and linking watershed models to the Scavia and DiMarco models). Daniel Conley will provide some European examples.

For section 2.1.3 – Role of N and P, recommendations on p. 22:

- Hans Paerl will work on language to highlight the importance of spring loads (to foreshadow this issue in section 3). Daniel Conley will help with this.

For section 2.1.6 – Sources of Organic Matter, recommendations on p. 31:

- Jim Sanders is conferring with others on how to proceed

For section 2.2.1 – Current State of Forecast Models, recommendations on p. 42:

- Virginia Dale will provide revisions to connect this with other recommendations on modeling. Revise language in second bullet to reverse the order of the sentences.

For section 3.1 – Temporal Characteristics, recommendations on p. 68:

- Dave Wangsness will revise incorporating members’ comments (2nd bullet needs to be more specific, use TN and TP rather than N and P)
- Mark David will provide graphs/paragraphs on N:P ratios (dealing with availability?) for this section

For section 3.2 – Mass Balance, recommendations on p. 82:

- Tom Simpson will add information on the distribution of manure and its importance in NANI.

For section 3.3 – Nutrient Transport Processes, recommendations on p. 89-90:

- Judy Meyer will revise to make recommendations more action-oriented
- Bill Crumpton will provide freshwater wetlands section
- Bob Howarth will revise p. 88- 89 (coastal wetlands section)

For section 3.4 – Ability to Route and Predict Nutrient Delivery, recommendations on p. 99-100:

- Kyle Mankin and Ken Reckhow will re-work recommendations to connect with modeling recommendations and comments in section 2, emphasizing linkages between models (i.e., Gulf models and watershed models). The second recommendation should be more focused and address the need for monitoring with the goal of adaptive management and modeling.

For section 4.1 -- Adaptive Management (100-102):

- Bill Crumpton will revise, emphasizing the recommendation for multiple scale monitoring, and development of a strategy within an adaptive management framework

For section 4.2 -- Setting Goals for N and P Reduction (p. 102 – 105):

- Tom Simpson will revise to better explain P recommendations, incorporating adaptive management. Ken Reckhow will provide revision addressing distribution of reduction between point and nonpoint sources (e.g., focusing on areas in need of TMDLs for nutrients)

For section 4.4 – Cost Effective Approaches to Implementation, recommendations on p. 122:

- Holly Stallworth will revise, softening language per members' suggestions, also making it clear that recommendations on p. 122 apply to all of section 4.4 (Check with Kling & Opaluch).

For section 4.5.1 – Agricultural Drainage, recommendation on p. 127:

- Bill Crumpton will revise to put findings back into recommendations.

For section 4.5.2 – Freshwater Wetlands, recommendation on p. 131:

- Bill Crumpton will revise to incorporate members' comments, looking at major benefits (change language which says "all co-benefits")

For section 4.5.3 – Conservation Buffers:

- Richard Lowrance will write Findings and Recommendations.

For section 4.5.4 --- Cropping Systems:

- Richard Lowrance will revise to incorporate members' comments.

For section 4.5.5 – Animal Production Systems:

- Andrew Sharpley will revise to incorporate members' comments. Opaluch will provide input on issue of consumer driven approaches.

For sections 4.5.7, 4.5.8, 4.5.9, 4.5.10 and Chapter 5:

- Everyone: Provide comments in writing to DFO.

Dr. Stallworth stipulated a deadline of May 14, 2007 for these revisions and adjourned the meeting.

On Behalf of the Panel,
Respectfully Submitted,

Holly Stallworth, Ph.D.
Designated Federal Officer

Certified as True:

Virginia Dale, Ph.D.
Chair, Hypoxia Advisory Panel

NOTE AND DISCLAIMER: The minutes of this public meeting reflect diverse ideas and suggestions offered by committee members during the course of deliberations within the meeting. Such ideas, suggestions, and deliberations do not necessarily reflect definitive consensus advice from the panel members. The reader is cautioned to not rely on the minutes represent final, approved, consensus advice and recommendations offered to the Agency. Such advice and recommendations may be found in the final advisories, commentaries, letters, or reports prepared and transmitted to the EPA Administrator following the public meetings.