

**Minutes of the  
U.S. Environmental Protection Agency  
Hypoxia Advisory Panel  
Subgroup #3 (Scientific Basis for Goals and Management Options)  
Public Meeting  
November 27, 2006**

Committee Members: Dr. Bill Crumpton  
Dr. Clifford Snyder  
Dr. James Opaluch (Acting Subgroup 3 Leader)  
Dr. Andrew Sharpley  
Dr. Richard Lowrance

Date and Time: November 27, 2006

Purpose: To discuss advisory work related to the scientific basis for goals and management options with respect to controlling hypoxia in the Gulf of Mexico.

SAB Staff: Dr. Holly Stallworth, Designated Federal Officer  
Dr. Thomas Armitage  
Dr. Anthony Maciorowski

Others: Mr. Dean Lemke , Iowa Department of Agriculture  
and Land Stewardship  
Dr. Jim Baker, consultant to Iowa Department of  
Agriculture and Land Stewardship

**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. Since Dr. Kling was unable to participate in this teleconference, Dr. Jim Opaluch acted as Subgroup 3 Leader. Dr. Opaluch reviewed the purpose of the teleconference as well as the agenda.

Members discussed possible questions for those experts invited to the December 6 – 8, 2006 meeting. One member suggested questions for Dr. Marc Ribaud, particularly:

- Are there any key changes in conditions in the Mississippi River Basin or other new developments since your prior report that would make you re-think your conclusions?
- What opportunities exist to reduce the costs of controlling nutrients by targeting on low cost/high benefit parcels?

In terms of questions to ask the invited expert on agricultural management practices, one member raised the issue of “seasonality,” i.e. the time profile for applying fertilizer in the Mississippi River Basin. Members also discussed the relevance of biofuel developments in agriculture in the Mississippi River Basin. The discussion covered a range of issues pertaining to the effects of various agricultural management practices, among them:

- Use of controlled release fertilizer;
- Geographic distribution of N and P;
- Possible tradeoffs between N and P management;
- Effects of timing and rate of fertilizer application;
- Information gaps on the rate and timing of fertilizer application;
- Drainage management and cropping systems;
- Mandatory versus voluntary approaches; and
- Interactions between water quality and soil quality.

Dr. Opaluch led members in a discussion of responsibilities for covering various topics for the charge questions in Subgroup 3’s domain. Members inquired about missing presentations from the Minneapolis symposium and Dr. Stallworth promised to look into that with EPA’s Office of Water. Considerable time was devoted to tagging specific members with specific topics. Dr. Crumpton volunteered to consolidate the outlines submitted by members prior to the teleconference. Dr. Crumpton volunteered to re-organize these topics, marked with members’ names to note their responsibility for that topic.

The meeting concluded with members agreeing to provide a paragraph of text summarizing their topics by Friday, December 1, 2006. Dr. Stallworth also requested that members who wish to submit written questions for invited speakers do so by close of business November 27, 2006.

On Behalf of the Panel,  
Respectfully Submitted,

Holly Stallworth, Ph.D. /Signed/  
Designated Federal Officer

Certified as True:

Jim Opaluch, Ph.D. /Signed/  
Acting Leader, Hypoxia Advisory Panel Subgroup #3