

WATER QUALITY MID-CYCLE REVIEW SUBCOMMITTEE

Conference Call Summary Thursday, September 4, 2008 1:00 p.m. – 3:00 p.m. Eastern Time

Welcome

Dr. Herb Windom, Professor Emeritus, Skidaway Institute of Oceanography, Water Quality Mid-Cycle Subcommittee Chair

Dr. Herb Windom, Chair of the Water Quality Mid-Cycle Review Subcommittee, introduced himself and explained that he had chaired the Board of Scientific Counselors (BOSC) Subcommittee that conducted the Water Quality program review in 2006. He noted that all but one individual who served on the Subcommittee that conducted the program review are members of this Mid-Cycle Subcommittee. Dr. Richard Sakaji is the only individual who did not serve on the previous Subcommittee. Dr. Windom welcomed the Mid-Cycle Subcommittee members and thanked them for participating on this call. He then asked everyone to identify themselves. The Subcommittee members and other participants on the call are included in the list of participants attached to this summary. The agenda for the call also is attached.

Dr. Windom mentioned that several documents were distributed prior to the call, and he asked if the members had received them. He noted that one of the items was a preliminary analysis of the survey results. Dr. Chuck Noss, National Program Director (NPD) for Water Quality, stated that a more formal analysis of the survey results would be distributed to the Subcommittee members prior to the face-to-face meeting on September 23, 2008. Dr. Judith Meyer asked if the Subcommittee would be provided the actual survey questions. Dr. Noss responded that he could provide those questions to the Subcommittee.

Dr. Windom stated that the objectives of the mid-cycle review are to: (1) evaluate the progress made by the Office of Research and Development (ORD) Water Quality Research Program (WQRP) relative to the commitments it made following its 2006 review, and (2) obtain advice and feedback on issues related to the future directions of the research program and performance and accountability. Dr. Windom pointed out that the mid-cycle review assesses the programs the program has made in addressing the recommendations of the program review. The Subcommittee will address specific charge questions during the review. The Subcommittee also must reach consensus concerning a rating for the program. Dr. Windom noted that mid-cycle review reports range from 6 to 10 pages—about 1 to 2 pages per charge question.

Administrative Procedures

Ms. Susan Peterson, U.S. Environmental Protection Agency, Office of Research and Development, Designated Federal Officer

Ms. Peterson stated that she is the Designated Federal Officer (DFO) for the Water Quality Mid-Cycle Subcommittee. She thanked the Subcommittee members for their efforts in conducting this mid-cycle review. Ms. Peterson explained that the BOSC is a Federal Advisory Committee that provides independent peer review for the U.S. Environmental Protection Agency's (EPA) ORD, and as such is subject to the rules and requirements of the Federal Advisory Committee Act (FACA). The Water Quality Mid-Cycle Review Subcommittee was established by the BOSC Executive Committee to conduct this mid-cycle review. As a subcommittee of the BOSC, the Water Quality Mid-Cycle Subcommittee is subject to FACA. The Subcommittee includes six members and one consultant. The DFO for the Subcommittee serves as the liaison between the Subcommittee and ORD. Ms. Peterson stated that it is her responsibility as the DFO to ensure that the Subcommittee's conference calls and meetings comply with all FACA rules. All meetings and conference calls involving substantive issues, whether in person, by phone, or by email, that include one-half or more of the Subcommittee members must be open to the public and a notice must be placed in the Federal Register at least 15 days prior to the call or meeting. The Federal Register notice for this call was published on August 15, 2008. The Subcommittee Chair and DFO must be present at all conference calls and meetings. All advisory committee documents also are made available to the public. Ms. Peterson reported that no requests for public comment were submitted prior to the call, but the agenda allows time for public comment at 2:35 p.m. She will call for public comments at that time.

Ms. Peterson stated that the Water Quality Mid-Cycle Subcommittee has been asked to respond to a set of charge questions for the mid-cycle review of ORD's WQRP. This is the first conference call for the Subcommittee and the face-to-face meeting is scheduled for September 23, 2008. The Subcommittee will draft a report that will be submitted to the BOSC Executive Committee. The Executive Committee may revise the report as it deems necessary before it is approved and submitted to the Assistant Administrator, ORD. The rights of decision-making and response to the report remain with EPA.

Ms. Peterson indicated that the Chair moderates the Subcommittee's meetings and he must recognize EPA staff and others present before they can comment. As DFO, Ms. Peterson has worked with EPA's ethics officials to ensure that all appropriate ethics requirements were satisfied for the Subcommittee members. The members have completed the required ethics training and submitted their confidential disclosure forms. It is her responsibility to ensure that there are no conflicts of interest. She asked the Subcommittee members to keep this in mind during the meeting and to notify her of any potential conflicts.

Ms. Peterson asked the Subcommittee members to complete their homework sheets and provide them to her at the September 23 meeting. She indicated that members must provide receipts for any expenses exceeding \$75. She mentioned that any questions concerning travel arrangements should be directed to Troy Rutkofske at 202-564-5236.

Dr. Stephen Weisberg asked about the difference between a Subcommittee member and a consultant. Ms. Peterson replied that the consultant would not have voting rights with respect to

the rating. She noted that Dr. Sakaji was added as a consultant simply because of the limited time to form the Subcommittee.

Dr. Windom clarified with Ms. Peterson that individual Subcommittee members could communicate with him and send him drafts without violating FACA rules. Ms. Peterson confirmed that such communication was permitted, and she reminded him that only communications involving one-half or more of the Subcommittee (i.e., 4 or more members) must be done in a public setting.

Material Overview

Dr. Chuck Noss, U.S. EPA, ORD, National Program Director for Water Quality

Dr. Noss stated that several documents were distributed prior to the call, including the agenda, the draft charge to the Mid-Cycle Subcommittee, the August 2008 draft of the Water Quality Multi-Year Plan (MYP), the Water Quality Program Review Mid-Cycle Progress Report, a preliminary analysis of the partners survey results, the status of the WQRP Annual Performance Goals (APGs), and WQRP Long-Term and Annual Measures. He mentioned that the program has been working with the Office of Resources Management and Administration (ORMA), to develop longer-term measures.

Before the September 23 meeting, the Subcommittee members will receive the following:

- ♦ A bibliometric analysis of program publications.
- ♦ A more formal analysis of the partners survey results.
- ♦ A report on what was accomplished with respect to the program's APGs and Annual Performance Measures (APMs).
- ♦ The revised MYP.
- ♦ The Office of Water (OW) strategy, which identifies the research needs of the Office.
- ♦ A list of the APMs and APGs for the next 3-year period.
- ♦ Several reports of workshops that were conducted during the past few years (the discussions from these workshops contributed to the revised MYP and illustrate how priorities were reached in a public setting).

Dr. Noss added that the program will try to show the Subcommittee where the WQRP fits in with the Ecological, Human Health, Endocrine Disrupting Chemicals, and other programs because not all ORD research on water quality is conducted under the WQRP.

Dr. Windom commented that there will be a lot of information for the Subcommittee to digest in the next few weeks.

Overview of the Charge/Rating Program Performance

Dr. Herb Windom, Water Quality Mid-Cycle Subcommittee Chair

Dr. Windom stated that the mid-cycle review will evaluate the progress the program has made since the 2006 program review. The review will address the following specific charge questions:

- 1. Do the currently planned revisions to the WQRP adequately address the 2006 BOSC review recommendations?
- 2. Do the revised long-term goals (LTGs) provide a coherent framework for presenting research needs?
- 3. Does the Water Quality Research Plan adequately address critical research to meet the regulatory mandates of the Clean Water Act?
- 4. Does the proposed research adequately support watershed management and contaminant source control programmatic needs?
- 5. Does the WQRP provide an appropriate balance among its three LTGs?
- 6. Do the existing Program Assessment Rating Tool (PART) performance measures provide appropriate and quantifiable indices of progress? What improvements does the panel recommend?
- 7. Please rate the progress made by the WQRP in moving the program forward in response to the BOSC review of 2006 as exceptional, exceeds expectations, meets expectations, or not satisfactory.

Dr. Windom indicated that a significant portion of the discussion time at the September 23 meeting will be devoted to reaching consensus on the rating (Charge Question 7). Once the first six charge questions have been addressed, the Subcommittee will rate the program. He noted that certain efforts of the program move forward faster than others; if the Subcommittee does not think these efforts are moving fast enough, that should be noted in the report.

For the rating question, the following adjectives will be used:

- ❖ Exceptional: indicates that the program is meeting all and exceeding some of its goals, both in the quality of the science being produced and the speed at which research results, tools, and methods are being produced. An exceptional rating also indicates that the program is addressing the right questions to achieve its goals. The review should be specific as to which aspects of the program's performance have been exceptional.
- ❖ Exceeds Expectations: indicates that the program is meeting all of its goals. It addresses the appropriate scientific questions to meet its goals, and the science is competent or better. It exceeds expectations for either the high quality of the science or for the speed at which work products are being produced and milestones met.
- ❖ Meets Expectations: indicates that the program is meeting most of its goals. Programs that meet expectations live up to them in terms of addressing the appropriate scientific questions to meet their goals, and work products are being produced and milestones are being reached in a timely manner. The quality of the science being done is competent or

better.

♦ Not Satisfactory: indicates that the program is failing to meet a substantial fraction of its goals, or if meeting them, that the achievement of milestones is significantly delayed, or that the questions being addressed are inappropriate or insufficient to meet the intended purpose. Questionable science also is a reason for rating a program as unsatisfactory for a particular LTG. The review should be specific as to which aspects of a program's performance have been inadequate.

Dr. Windom commented that the rating is subjective, but it should be based on the responses to the first six charge questions. He noted that Mr. Phillip Juengst (ORD/ORMA) has taken the lead in implementing this rating approach. Dr. Windom asked if Mr. Juengst was on the phone; when Mr. Juengst indicated he was present, Dr. Windom asked the Subcommittee members if they had any questions for him regarding the rating question. There were no questions about the rating process for Mr. Juengst.

Dr. Meyer said that one of the recommendations from 2006 was for the program to establish principles for prioritizing research. She asked if the Subcommittee would be receiving these principles. Dr. Noss replied that priorities were established through the Research Coordination Team (RCT) and by working with OW and the regions. He added that OW and ORD management have not yet agreed that the plan addresses their priorities. Upper management will meet in November and come to agreement on priorities. Dr. Meyer asked if there were plans for an external review of the MYP. Dr. Noss responded that the revised MYP will be reviewed by the Science Council (which includes the ORD NPDs, Laboratory Directors, and Center Directors). This is the first step in the review process. No decision has been made concerning an external review of the MYP. He added that LTGs 1 and 3 fell into place rather quickly, but LTG 2 did not. The program has spent the last year working to define the research for LTG 2. The LTG 2 research plan is being rewritten and reviewed by OW and ORD. Once there is agreement on this research, the program will have a robust MYP.

Overall Progress Review

Dr. Chuck Noss, U.S. EPA, ORD, National Program Director for Water Quality

Dr. Noss stated that ORD responded to the BOSC's report on the Water Quality Program in October 2006. The Water Quality Program Review Mid-Cycle Progress Report, which was distributed to the Subcommittee prior to this call, explains the program's response to each of the recommendations in the BOSC report. Dr. Noss proceeded to summarize those responses.

Summary Recommendation 1: A more transparent approach to prioritizing research is recommended. This should be provided in the next MYP.

Status: In the 2007 draft of the MYP, the program outlined its processes for collecting information and making transparent decisions. The Water Research Coordination Team (WRCT), with representatives from ORD, OW, and the regions, focused on clarifying the links between the regulatory drivers and the research, identifying criteria for what research will be done, and clarifying the critical paths that lead from APMs to APGs to LTGs. In addition, stakeholder MYP workshops provided a forum for ORD scientists and program office and

regional partners to discuss how research priorities should be determined. These discussions focused on the OMB R&D investment criteria and how to apply them to research prioritization.

Summary Recommendation 2: An annual accounting of Program outcomes is needed that includes the following six metrics: research activities completed by a specific date; results published in papers, reports, or otherwise made available; transfer and communication of reported results; institutional outcomes; management outcomes; and environmental outcomes.

Status: In 2006, the WRCT developed a suite of formal program measures, which included: (1) annual output measures that assess the percentage of planned APMs delivered on time in a given year, and (2) bibliometric analysis measures that assess the extent to which program publications are "highly cited" and of "high impact." The program also will track its BOSC ratings and results as overall indicators of the extent to which the program is meeting its institutional outcomes and ultimately contributing to environmental outcomes. The program currently tracks its efficiency by gauging the number of publications produced per FTE; however, based on information gleaned from a recent National Academies report, the program may adopt an alternative measure in the future. The program also is exploring the possibility of creating additional measures to further reflect institutional and environmental outcomes (e.g., a measure of regional utility/use of ORD APMs. To ensure that program research is made available and will be of use to partners, the program posts bibliographic and newsworthy information on the water quality Web site, is developing an intranet Web site to promote communication, and promotes data sharing and collaboration across EPA using the Science Connector. The program also implemented a biannual partner survey to obtain information on the quality, relevance, and utility of its research.

Summary Recommendation 3: The exploratory part of the Science To Achieve Results (STAR) Program should be reinstated and made sustainable. This is necessary to keep the Program fresh and flexible to confront emerging issues.

Status: Historically, the STAR Water Quality budget funded only the Ecology and Oceanography of Harmful Algal Blooms (ECOHAB) program. In FY 2008, EPA lost all extramural resources to support ECOHAB research and the Agency's extramural water quality resources have not been reinstated. Dr. Noss mentioned that the National Center for Environmental Research (NCER) does fund extramural exploratory research, and the Center has formed a workgroup to solicit input on new topics for exploratory research. This workgroup may seek advice from outside advisory groups like the BOSC.

Summary Recommendation 4: *The Program should include partnering and collaboration particularly with the states.*

Status: The NPD has encouraged the ORD laboratories and centers to partner with other agencies when feasible. ORD has sought regional representation to assist in identifying opportunities for collaboration with states and has actively sought new opportunities and avenues for collaboration by identifying states and/or regional individuals who can help create local contributions to national efforts. ORD has developed a pilot program with the Association of State and Interstate Water Pollution Control Agencies (ASIWPCA) to enhance communication of research needs and research findings. EPA also has reached out for input from stakeholders interested in developing criteria for recreational waters. The program has taken advantage of

EPA's Environmental Monitoring and Assessment Program (EMAP) to expand its data collection across waters representative of the entire nation. ORD scientists also have worked with regional and program office personnel to collect data to support study site selection for future efforts.

Summary Recommendation 5: The MYP needs considerable improvement if it is to better communicate the goals of the Program as it is intended. It needs to communicate where the Program has been, where it is now, and where it is going.

Status: The MYP has been revised and remains in draft form. The revision sought to provide background information and context, along with a description of future research directions. As a result of the initial MYP stakeholder review comments regarding a greater need for additional watershed management work, however, a workshop was planned for early 2008. This workshop was held in spring 2008 and five research proposals were developed. Because these proposals were not unique to the WQRP, the program worked with the Ecology Research Program and associated laboratory and center personnel as well as program offices and regions to finalize a plan that incorporates the identified research into each research area as appropriate. Upon completion of this effort, the MYP will be submitted for review.

Summary Recommendation 6: Biosolids should not be elevated to an LTG. This research should be subsumed either in LTG 3 or under the same structure as other pollutant sources in the frameworks for LTGs 1, 2, and 3.

Status: The program's LTGs have been rewritten to be consistent with the BOSC recommendations. Biosolids research has been incorporated into the structure of the three existing LTGs. The LTGs were reworded to be consistent with outcomes and measures of use.

Dr. Windom asked if there were any questions concerning the progress report, noting there was more detail provided in the document. Dr. Weisberg commented that the report was well organized and would be very helpful in conducting the mid-cycle review.

Updated MYP Review

Dr. Chuck Noss, U.S. EPA, ORD, National Program Director for Water Quality

Dr. Noss reported that he surveyed regions, program offices, and many individuals about their research needs as input for the MYP. He prepared a series of theme papers about LTGs and held a meeting on each LTG that was attended by about 50 personnel from ORD, OW, and the regions. At these meetings, mid-level managers and staff from across ORD, OW, and the regions provided input into the research plan. The results of those meetings were incorporated into the draft MYP developed in late 2006. Dr. Noss noted that OW requested information to help the Office target areas and set priorities; OW also needed indicators to assess the impact when best management practices are implemented. As mentioned earlier, five research areas were identified at the spring 2008 meeting. The Ecological Research Program has agreed to take the lead on one of the five areas so it will not be included in the revised Water Quality MYP. Dr. Noss noted that the 2008 revisions to the 2007 draft MYP are identified in the first seven pages of the plan (pp. i-vii). These pages explain how the program incorporated input from OW and the regions into the MYP. He plans to track revisions to the MYP on an annual basis as a record of how the plan evolved and what affected the decision processes. Dr. Noss said that the APMs

and APGs for LTG 2 are being finalized and the 2008 MYP should be ready for review in 6 to 8 weeks.

Dr. Windom commended this approach, adding that the MYP must be flexible and allow the program to shift resources to address new issues and the Agency's changing priorities.

Dr. Meyer asked about the language changes in the APMs and APGs that were suggested by OW and the regions. Did the program use this new wording in the revised MYP? Dr. Noss responded that each of the Assistant Laboratory Directors (ALDs) was responsible for a specific area of research; the ALDs contacted OW/regional representatives to work through the language issues and to come to agreement on the final wording of the APMs and APGs. Some of that language is different from that proposed by OW. Prior to the face-to-face meeting, all of the language changes will have been checked and the APMs and APGs document will explain why the language was changed.

Dr. Meyer commented that LTG 3 research focuses on aging infrastructure and POTWs (publicly owned treatment works) and LTG 2 on watershed assessment. She thought the POTW focus seemed inconsistent. Dr. Noss replied that OW's Office of Wastewater Management has specific research needs, many of which involve wet weather issues and POTWs. There also are concerns about aging infrastructure, and there is separate funding for both of these research areas. He acknowledged that the plan is not as integrated as he would like because it is trying to address the needs of the different OW offices. The program is trying to take a more integrated approach for the other LTGs.

Dr. Gary Sayler asked about the overall funding trend for the program. Dr. Noss responded that funding has been stable, but the funding has shifted; for example, the program has moved resources to address recreational waters. The total budget and number of FTEs has remained stable, but the funding that was used to fund the extramural ECOHAB grants is being used elsewhere.

Dr. Sayler asked if the program was involved in biofuels/bioenergy. Dr. Noss answered that there is significant activity in the Global Change and Ecological Research Programs, but not in the WQRP. The only connection is a very small effort linked to energy recovery and fuel cells at wastewater treatment plants.

Dr. Meyer asked what was meant by balance in Charge Question 5: Does the WQRP provide an appropriate balance among its three LTGs? Is this question referring to budget balance? Dr. Noss replied that the program has a certain level of effort targeted to each of its audiences. The program has to balance how much effort, for example, is devoted to criteria development, production of Web-based tools to be used to achieve environmental outcomes, and creation of watershed management tools. Dr. Meyer asked how the Subcommittee could judge the balance of effort. Dr. Windom replied that the Subcommittee should consider the balance of research among the three LTGs with respect to the APMs and APGs. For example, the 2006 program review found that biosolids was given too much emphasis. The mid-cycle review should determine if each research direction is being given the appropriate level of attention; if an area is not moving forward at an adequate pace, the Subcommittee should examine the reasons for the lag.

Dr. Laura Ehlers commented that two of the three LTGs have changed since the 2006 program review—only LTG 1 has remained the same. When did these changes occur? Dr. Noss responded that these changes resulted from the meetings with the program's clients. Different clients have different needs and those needs change over time. These revised LTGs are much more targeted to help the national program offices, regions, and states. He added that LTG 1 has not changed because the program has to perform the research to inform the development and application of water quality criteria.

Dr. Windom stated that the program review recommended that the program develop a more transparent approach to prioritizing research. It appears that the program has increased transparency and is seeking input from clients. He agreed that the LTGs should change over time. Dr. Noss pointed out that the PART review uses language from the previous draft of the MYP; therefore, the LTGs changes took place after the PART review.

Preparation for Face-to-Face Meeting

Dr. Herb Windom, Chair of the Water Quality Mid-Cycle Subcommittee

Because he had another commitment and had to leave the call at this point, Dr. Sayler asked Dr. Windom to notify him about his writing assignment. Dr. Windom replied that he would like to ask each Subcommittee member to take responsibility for preparing a 1-2 page response for one charge question. He will assign a specific question to each member. Dr. Windom made the following assignments:

Charge Question 1—Dr. Judith Meyer Charge Question 2—Dr. Kevin Kleinow Charge Question 3—Dr. Richard Sakaji Charge Question 4—Dr. Stephen Weisberg Charge Question 5—Dr. Laura Ehlers Charge Question 6—Dr. Gary Sayler

Dr. Windom asked the Subcommittee members to send their 1-2 page responses to him via email by September 17, 2008. He will compile the responses into a single document and circulate it to the Subcommittee prior to the September 23 meeting. He encouraged Subcommittee members to provide comments on the other questions that were not assigned to them if they desired.

Dr. Meyer asked about the remaining documents to be sent to the Subcommittee. She did not want to prepare her response until she had the opportunity to review those materials. Dr. Windom responded that he will ask Ms. Peterson and Dr. Noss to send the Subcommittee those materials as soon as possible. Dr. Windom will distribute the combined draft responses by close of business on September 19. He will add his comments to the draft responses when he compiles them. He asked the Subcommittee members to copy Ms. Peterson on all e-mails sent to him, adding that any questions for the program should be directed to Ms. Peterson.

Dr. Meyer asked if the Subcommittee will receive the APGs in a tabular format, similar to that provided for the 2006 program review. Dr. Noss replied that he will provide that to Ms. Peterson for distribution to the Subcommittee next week.

Dr. Weisberg asked if Ms. Peterson wanted the members to identify their interactions with EPA, particularly ORD, on this conference call. Ms. Peterson responded that this could be done at the face-to-face meeting.

Ms. Peterson asked the Subcommittee members to contact Troy Rutkofske and notify her if they have any travel issues.

Public Comments

Ms. Susan Peterson, U.S. EPA, ORD, Designated Federal Officer

At 2:35 p.m., Ms. Peterson asked if there were any members of the public on the call who wanted to make a comment. No comments were offered.

Preparation for Face-to-Face Meeting (Continued)

Dr. Herb Windom, Water Quality Mid-Cycle Subcommittee Chair

Dr. Meyer asked if Ms. Peterson could send her the report from the 2006 program review. Ms. Peterson responded that the report is on the BOSC Web Site (www.epa.gov/osp/bosc/reports. htm) along with the ORD response to the report.

Dr. Windom agreed to send out the charge question assignments. He encouraged the Subcommittee members to review the mid-cycle review reports posted on the BOSC Web Site.

Dr. Windom said he looked forward to seeing the members at the September 23 meeting and adjourned the conference call at 2:38 p.m.

Action Items

- ♦ Ms. Peterson will send out the following items to the Subcommittee prior to the September 23 meeting:
 - A bibliometric analysis of program publications.
 - A more formal analysis of the partners survey results.
 - A report on the status of the program's APMs and APGs.
 - The revised MYP.
 - The OW strategy.
 - A list of the APMs and APGs for the next 3-year period.
 - Several reports of workshops that were conducted during the past few years.
- ❖ Dr. Noss will provide to Ms. Peterson the actual questions for the partners survey. Ms. Peterson will distribute the survey questions to the Subcommittee members prior to the September 23, 2008 meeting.
- ♦ Dr. Meyer will prepare a 1-2 page response to Charge Question 1 and send it to Dr. Windom and Ms. Peterson by September 17, 2008.
- ♦ Dr. Kleinow will prepare a 1-2 page response to Charge Question 2 and send it to Dr. Windom and Ms. Peterson by September 17, 2008.

- ❖ Dr. Sakaji will prepare a 1-2 page response to Charge Question 3 and send it to Dr. Windom and Ms. Peterson by September 17, 2008.
- ♦ Dr. Weisberg will prepare a 1-2 page response to Charge Question 4 and send it to Dr. Windom and Ms. Peterson by September 17, 2008.
- ♦ Dr. Ehlers will prepare a 1-2 page response to Charge Question 5 and send it to Dr. Windom and Ms. Peterson by September 17, 2008.
- ♦ Dr. Sayler will prepare a 1-2 page response to Charge Question 6 and send it to Dr. Windom and Ms. Peterson by September 17, 2008.
- ❖ Dr. Windom will compile the responses into a single document and add his comments to the draft. He will provide distribute the document to the Subcommittee by close of business on September 19, 2008.

PARTICIPANTS LIST

Subcommittee Members

Herb Windom, Ph.D., Chair

Professor Emeritus Skidaway Institute of Oceanography 10 Ocean Science Circle

Savannah, GA 31411 Phone: 912-598-2490

E-mail: herb.windom@skio.usg.edu

Laura J. Ehlers, Ph.D.

Senior Scientist National Academy of Sciences National Research Council 500 5th Street, NW Washington, DC Phone: 919-530-1074

E-mail: LEhlers@nas.edu

Kevin Kleinow, Ph.D.

Professor Comparative Biomedical Sciences School of Veterinary Medicine Louisiana State University Skip Bertman Drive Baton Rouge, LA 70895

Phone: 225-578-9757

E-mail: kleinow@vetmed.lsu.edu

Judith L. Meyer, Ph.D.

Distinguished Research Professor Emerita Odum School of Ecology University of Georgia 517 Biological Sciences Building Athens, GA 30602-2602

Phone: 706-542-3363 E-mail: jlmeyer@uga.edu

Gary S. Sayler, Ph.D.

Professor of Microbiology and Ecology Director, The Center for Environmental Biotechnology University of Tennessee 676 Dabney Hall Knoxville, TN 37996-1605

Phone: 865-974-8080 E-mail: sayler@utk.edu

Stephen B. Weisberg, Ph.D.

Executive Director Southern California Coastal Water Research Project Authority 3535 Harbor Boulevard Costa Mesa, CA 92626 Phone: 714-372-9203 E-mail: stevew@sccwrp.org

Subcommittee Consultant

Richard H. Sakaji, Ph.D.

Manager of Planning and Analysis for Water Quality East Bay Municipal Utility District 375 11th Street, MS 705 Oakland, CA 94607-4240 E-mail: rsakaji@ebmud.com

Designated Federal Officer

Susan Peterson

U.S. Environmental Protection Agency Office of Research and Development Office of Science Policy

Mail Code: 8104R

1200 Pennsylvania Avenue, NW

Washington, DC 20460 Phone: 202-564-1077

E-mail: peterson.susan@epa.gov

EPA Participants

Phillip Juengst

U.S. Environmental Protection Agency Office of Research and Development Office of Resources Management and

Administration Mail Code: 8102R

1200 Pennsylvania Avenue, NW

Washington, DC 20460 Phone: 202-564-1077

E-mail: juengst.phillip@epa.gov

Charles Noss, Sc.D.

National Program Director for Water Quality U.S. Environmental Protection Agency

Mail Code: E205-09

Research Triangle Park, NC 27711

Phone: 919-541-1322

E-mail: noss.charles@epa.gov

Bill Russo

U.S. Environmental Protection Agency

Mail Code: B305-02

Research Triangle Park, NC 27711

Phone: 919-541-7869 E-mail: russo.bill@epa.gov

Laurel Schultz

U.S. Environmental Protection Agency

Mail Code: E205-09

Research Triangle Park, NC 27711

Phone: 919-541-1949

E-mail: schultz.laurel@epa.gov

Contractor Support

Beverly Campbell

The Scientific Consulting Group, Inc. 656 Quince Orchard Road, Suite 210

Gaithersburg, MD 20878 Phone: 301-670-4990

E-mail: bcampbell@scgcorp.com



WATER QUALITY MID-CYCLE SUBCOMMITTEE

AGENDA September 4, 2008 1:00 - 3:00 pm Eastern Time

Participation by Teleconference Only 866-299-3188 Code: 202-564-1077#

| 1:00 - 1:10 pm | Welcome - Introduction of Subcommittee Members - Overview of Subcommittee Objectives | Dr. Herb Windom, Subcommittee Chair |
|----------------|--|---|
| 1:10 - 1:15 pm | Administrative Procedures | Susan Peterson, Subcommittee DFO |
| 1:15 – 1:30 pm | Material Overview | Dr. Charles Noss Office of Research and Development |
| 1:30 - 1:50 pm | Overview of Charge/ Rating Program Performance | Dr. Herb Windom Subcommittee Chair |
| 1:50 -2: 10 pm | Overall Progress Review | Dr. Charles Noss Office of Research and Development |
| 2:10 – 2:35 pm | Updated MYP Review | Dr. Charles Noss Office of Research and Development |
| 2:35 – 2:40 pm | Public Comment | Dr. Charles Noss, ORD NPD |
| 2:40 – 3:00 pm | Preparation for Next Call and/or Face-to-Face Meeting - Discuss Writing Assignments - Identify Additional Information Needs | Dr. Herb Windom, Subcommittee Chair |
| 3:00 pm | Adjourn | |