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BOARD OF SCIENTIFIC COUNSELORS

SCIENCE AND TECHNOLOGY FOR SUSTAINABILITY MID-CYCLE SUBCOMMITTEE

Conference Call Summary
Wednesday, May 6, 2009
12:00 – 2:00 p.m. Eastern Time

Welcome

Dr. John Giesy, University of Saskatchewan, Subcommittee Chair

Dr. John Giesy, Chair of the Board of Scientific Counselors (BOSC) Science and Technology for Sustainability (STS) Mid-Cycle Subcommittee, welcomed the Subcommittee members to the teleconference and took roll. A list of call participants is attached to this summary. He then reviewed the agenda for the call.

Administrative Procedures

Mr. Greg Susanke, U.S. Environmental Protection Agency (EPA)/Office of Research and Development (ORD), Subcommittee Designated Federal Officer (DFO)

Mr. Greg Susanke, Subcommittee DFO, thanked the Subcommittee members for their attendance and reviewed the Federal Advisory Committee Act (FACA) procedures that are required for all BOSC Subcommittee meetings. As the DFO, Mr. Susanke ensures that all FACA requirements are met and that records of Board deliberations are made public. All meetings and teleconferences involving substantive issues, whether in person, by phone, or by e-mail, that include one-half or more of the Subcommittee members must be open to the public. Although there were no advance requests from the public, an opportunity for public comment will be provided at 1:00 p.m. Notices for all public meetings of the Subcommittee must be published in the *Federal Register* at least 15 days prior to the meeting; the notice for this teleconference was published on April 21, 2009, and an electronic docket was established. Previous meetings of this Subcommittee were held on February 12, 2009, and March 12, 2009. The minutes are being recorded by Ms. Kristen LeBaron of The Scientific Consulting Group, Inc., who will prepare a summary of the call. Following review by the Subcommittee members and certification by the Chair, the summary will be available on the BOSC Web Site.

Overview of Draft Report

Dr. John Giesy, Subcommittee Chair

Dr. Giesy thanked the Subcommittee members for all of their hard work in preparing for the mid-cycle review, at the face-to-face meeting, and in creating the draft report. He noted that the BOSC Executive Committee recently discussed a possible standardized template for reports and that it will be addressed further at the June Executive Committee meeting. Dr. Giesy reported that he had approved the minutes of the Subcommittee's face-to-face meeting. He used the minutes, his notes, and Subcommittee members' input to develop the draft report. Dr. Giesy incorporated the Subcommittee members' comments into the draft report, and the purpose of this conference call is to discuss the latest version of the report.

Draft Report Discussion

STS Mid-Cycle Subcommittee

Dr. Giesy explained that he would go through the draft report in order, addressing each of the comments that he had received from the Subcommittee members. In terms of the summary section, Dr. Giesy noted that several Subcommittee members asked to rearrange this section so that the Subcommittee's responses follow each charge question. The current format has been used for past reports, but if the Subcommittee members agree to change the format, Dr. Giesy will determine whether it can be changed. Dr. Wayne Landis commented that the suggested change makes sense. Dr. Giesy agreed and asked Mr. Susanke to determine whether the format can be changed. Mr. Susanke stated that it is okay to make this change, adding that the report that was given to the Subcommittee was only a guideline. Dr. Giesy noted that one of the appendices has the charge questions listed with each response. The Subcommittee members unanimously agreed to place each summary response immediately following the appropriate charge question.

Dr. Giesy noted that Dr. John Smith had suggested moving the final sentence of the paragraph under the Charge Question 1 summary response (regarding the assessment rating) to be the lead sentence of the paragraph. The Subcommittee agreed to make this change.

Under the Charge Question 3 response within the summary, a comment was received to provide examples following the sentence, "It was suggested that to demonstrate outcomes and impact, the program develop and implement better ways to track the information that they need to determine the quality and impact of the research programs." Dr. Eric Beckman noted that there are examples found in the more detailed sections of the report. These same examples could be used here to provide consistency. Dr. Giesy agreed to find the examples, abbreviate them, and add them to this paragraph. He will use the "Track Changes" feature so that all of the Subcommittee members can easily review all of the changes made as a result of this discussion. A Subcommittee member cautioned not to add so much detail that the report becomes redundant. Dr. Giesy agreed and noted that the Subcommittee members will have another chance to comment on the revised draft. Dr. Landis thought that the paragraphs within the detailed discussion that focus on program metrics had several good examples that should be used in this paragraph.

Dr. Giesy stated that he had received a comment regarding the Charge Question 6 response within the summary. Perhaps the Subcommittee should suggest that the Program begin to consider water as a strategic resource instead of in terms of regulation, which is the typical EPA approach. As a strategic resource material, flow analysis and usage patterns must be taken into account in addition to regulatory items. Dr. Beckman noted that this was his suggestion. If there are more appropriate or stronger examples, then this does not need to be included. Dr. Smith commented that this example could be used as one of many so it is clear that this is not the only possible option. Examples add substance to what otherwise are abstract recommendations. Dr. Giesy suggested that more information regarding why this is an appropriate example can be added in the more detailed sections later in the report. A Subcommittee member commented that it is important to make it clear that water is used as an example not as a regulated medium but as a strategic resource, with consideration to its flows. Dr. Giesy replied that the example can highlight water with a statement that other factors, such as land, also could be addressed in a more holistic manner.

The Subcommittee discussed the response to Charge Question 2. Dr. Giesy stated that a Subcommittee member thought that the focus on biofuels in responding to this charge question may cause some confusion with Charge Question 5, which specifically deals with the topic of biofuels. Drs. Smith and Beckman both agreed. Dr. Giesy remarked that Charge Question 2 asks whether the Program's rationale is clear, and biofuels is the focus of the response because much of the Program's rationale deals with biofuels. Dr. Beckman stated that the Long-Term Goals (LTGs) are particularly important in answering this charge question, so the response regarding the LTGs should lead rather than being located in the third

paragraph. This really defines the Program's rationale and strategy, and then the topic of biofuels can be used as the unifying example for the LTGs. Dr. Smith pointed out that there is some redundancy because there is a charge question specific to the topic of biofuels; therefore, it may be appropriate to mention a few details about biofuels and explain that the issue is further explored and addressed under Charge Question 5. Dr. Giesy will move the paragraph regarding the LTGs to lead the section and will eliminate any redundancies with Charge Question 5. A Subcommittee member expressed concern with leading off with this because it may alter the scale issue; biofuels are at the large end of the scale, and the Portland and San Luis Basin projects are at the smaller end but may have more immediate impacts. Dr. Giesy agreed to keep the scales of other projects in perspective.

The next comment Dr. Giesy had received prior to the call dealt with the section on Charge Question 3. The comment was that the following sentence in the first paragraph did not fit with the charge question: "It would have been useful to have been given a list of key metrics proposed as 'foundation metrics' such as water quality, water use, water discharge, CO₂ emissions, energy use, solid waste generation, solid waste to landfills, ecological impairment, etc." This sentence is more appropriate to the discussion on LTG 1. Dr. Beckman noted that this was his comment. He explained that these are sustainability metrics, and part of LTG 1 is to develop sustainability metrics. Foundation metrics were discussed during the face-to-face meeting, but the metrics under this charge question deal with how well the Program is performing. Both metrics are important, but they are different; these are more appropriate under the LTG 1 discussion. Dr. Giesy said he will move this discussion to the section on LTG 1.

No further comments were received prior to the conference call. Dr. Giesy asked the Subcommittee members to ensure that their contact information was correct in Appendix B. Dr. Smith indicated a correction to his ZIP code. Dr. Landis said that he had finished his tenure as Department Chair, so that title should be removed.

Dr. Giesy stated that the Subcommittee needed to determine what to include in the appendices to the report. There is no requirement for appendices other than the list of charge questions (Appendix A) and list of Subcommittee members (Appendix B). Dr. Giesy added Appendix C with the table that outlines recommendations and responses from the prior full program review, which has been added to prior mid-cycle reports. The BOSC Executive Committee members like this format because it provides a good summary and is easy to review. He asked the Subcommittee members whether any additional information needed to be added; there were no additional suggestions.

Dr. Giesy opened the discussion to Subcommittee members' comments regarding this version of the draft report. In terms of the summary section, the BOSC Executive Committee would like summaries to be short and/or in bullet format. Dr. Giesy acknowledged that the responses currently are short, but they do not lend themselves to bullet format. The Subcommittee members agreed with this assessment.

Dr. Smith noted that the first eight sentences under the summary response to Charge Question 1 (starting with line 40 on page 2) provide background information but do not address Charge Question 1. He proposed that these sentences be moved to the introductory paragraph of the summary. Dr. Giesy agreed to integrate these sentences into the summary introduction and delete any redundancies.

Within the second paragraph under the section dealing with Charge Question 2, the phrase "thought leader" (line 13, page 9) is too passive. The Subcommittee's intention was to encourage the Program to be the leader in this area and approach critical issues in a strategic fashion. The discussion at the face-to-face meeting encouraged the Program to be: (1) the key enabler in this area, (2) the "go-to" group within the government for sustainability, and (3) a strategic force that can see all of the pieces and move the issues to a broader level. Other possible terms to replace "thought leader" are "focal point," "lynchpin," or "keystone." Dr. Giesy said he would give this some thought and determine the most appropriate phrase. A Subcommittee member explained that "thought leader" was used to add the nuance that in addition to the Program being the practical leader, it also should provide intellectual leadership. Instead

of just providing models and regulations, its researchers and leaders should have thought about what sustainability is at a deep level. Dr. Giesy commented that, instead of jargon, a more lengthy sentence with additional details might be necessary. Dr. Smith noted that no group within the Agency presently is doing this; there is a need, and this Program could fulfill that need.

A Subcommittee member noted that a metric regarding “tech transfer” is mentioned in line 39 of page 11, and there is another list of metrics in line 3 of page 12. Dr. Giesy explained that the intention was to mention items that the Program could measure that currently were not being measured. The Program needs to go beyond what it currently is doing and show that it is making an impact and illustrate how it is being effective. A Subcommittee member noted that the case studies mentioned in line 4 of page 12 are the most telling metric. Another Subcommittee member noted that industrial partnerships could be a very important metric because as industry starts partnering with EPA, it reinforces the notion that this is the “go-to” program for sustainability. Partnerships with other government agencies (e.g., Department of Energy, Department of Defense) also are important, as well as those with international entities. Dr. Giesy agreed to add these metrics.

Public Comment

Mr. Susanke called for public comment at 1:00 p.m. No comments were offered.

Draft Report Discussion

STS Mid-Cycle Subcommittee

Dr. Giesy asked the Subcommittee members whether the bulleted list in the section regarding Charge Question 6 should be moved to the top of the section. Dr. Smith noted that the main point is to view water as a resource rather than a regulated entity. He explained that sustainability needs to be considered from a resource focus rather than a regulation focus. This can relate to media such as water, land, and so forth. A few sentences should be added regarding water that make the point that water (as well as land and other media) should be viewed as a scarce commodity that needs to be managed. Dr. Giesy noted that he had received verbiage from Dr. Beckman that he will add. He mentioned that ORD is moving toward a holistic approach. Dr. Smith added that the biofuels focus brings everything into one realm. Dr. Landis agreed that water is critical and a limiting factor and, therefore, a strong example to include.

Dr. Smith noted that a mention of climate change was blatantly missing, especially considering that it is a hot political topic; it will detract from the review if it is not explicitly added. Dr. Giesy explained that climate change was implicit because ORD is incorporating climate change into all of its research programs, but he will mention it specifically. A Subcommittee member noted that all consumption has a direct or indirect effect, and the Agency does not want climate change to be siloed but examined in a holistic manner. Dr. Giesy will add a few sentences to explain climate change relevant to where the Agency is as he is hearing endorsement of the Agency integrating climate change into all of its research programs. He will put that bullet first. The Subcommittee members agreed, and Dr. Smith noted that the bullet should be added to the summary response to Charge Question 6 (within the summary section) as well.

Dr. Giesy advised the Subcommittee members to review the summary carefully because this will be the only section that many people read. He asked whether the Subcommittee members agreed with all of the changes discussed during the conference call; the members unanimously agreed.

Dr. Smith noted that Appendix D which includes a list of acronyms, was blank. Mr. Susanke responded that he will address it.

Next Steps

Dr. John Giesy, Subcommittee Chair

Dr. Giesy will make the revisions as discussed during this conference call and provide the revised report to Mr. Susanke by Friday, May 8, 2009. Mr. Susanke asked whether this mid-cycle report would be presented to the BOSC Executive Committee during its June meeting. Dr. Giesy stated that this was his goal. Mr. Susanke noted that he will need the final draft no later than May 20, 2009, if it is to be included in the materials for the Executive Committee meeting. Therefore, it will need to be sent to the contractor for formatting and editing no later than May 15, 2009. He asked the Subcommittee members whether they would be able to send their changes to him by May 13, 2009, if he forwarded them the revised draft by Monday, May 11, 2009; the Subcommittee members confirmed that they could meet this schedule. Dr. Giesy noted that the changes at this point should be minor. He will make a PowerPoint presentation using the final draft report as a guide to present to the BOSC Executive Committee at the face-to-face meeting.

Mr. Susanke instructed the Subcommittee members to track on their homework sheets their time spent working on the report outside of the conference calls and meetings. He will send an e-mail to the Subcommittee members to request the homework sheets once the final draft of the report has been completed. This homework sheet will include time spent since the face-to-face meeting, excluding time spent in conference calls which he will track.

The Subcommittee members noted the positive interactions and productivity of the Subcommittee. Dr. Giesy thanked everyone for their participation on the Subcommittee and adjourned the conference call at 1:29 p.m.

Action Items

- ✧ Dr. Giesy will make the following changes to the draft report using the “Track Changes” feature:
 - In the summary, move the responses to follow the appropriate charge question.
 - In the summary, move the first eight sentences under the response to Charge Question 1 (starting with line 40 on page 2) to the summary introduction and delete any redundancies.
 - In the summary, move the final sentence under the response to Charge Question 1 to be the lead sentence.
 - In the summary, under the response to Charge Question 3, find examples, abbreviate them, and add them following the sentence, “It was suggested that to demonstrate outcomes and impact, the program develop and implement better ways to track the information that they need to determine the quality and impact of the research programs.”
 - In the summary, under the response to Charge Question 6, add climate change as an example of an issue of national concern and examples regarding water, including a statement that other factors (such as land) also can be addressed more holistically.
 - In the section on Charge Question 2, move the paragraph regarding the LTGs to lead the section, eliminate redundancies with the section on Charge Question 5, and keep the scales of other projects in perspective.
 - In the section on Charge Question 2, provide more details about the Program being the “thought leader” and what this means.

- In the section on Charge Question 3, move the comments regarding foundation metrics to the LTG 1 discussion.
 - In the section on Charge Question 3, add industrial, federal, and international partnerships to the list of metrics.
 - In the section on Charge Question 6, add Dr. Beckman's verbiage regarding water and other media as resources and scarce commodities.
 - In Appendix B, correct Dr. Smith's ZIP code and remove Dr. Landis' department head title.
- ✧ Dr. Giesy will make the above revisions and provide the revised report to Mr. Susanke by close of business Friday, May 8, 2009.
 - ✧ Mr. Susanke will forward the revised draft to the Subcommittee members no later than Monday, May 11, 2009.
 - ✧ Subcommittee members will forward their comments regarding the revised draft to Mr. Susanke no later than May 13, 2009.
 - ✧ Mr. Susanke will forward the revised draft with Subcommittee members' comments incorporated to the contractor for a final edit no later than May 15, 2009.
 - ✧ Mr. Susanke will determine whether Appendix D (list of acronyms) is necessary.
 - ✧ Dr. Giesy will create a PowerPoint presentation using the final draft report as a guide to present to the BOSC Executive Committee at the face-to-face meeting.
 - ✧ Mr. Susanke will send an e-mail to the Subcommittee members to request homework sheets when the final draft of the report has been completed.

PARTICIPANTS LIST

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**SCIENCE AND TECHNOLOGY FOR SUSTAINABILITY (STS)
MID-CYCLE SUBCOMMITTEE**

**TELECONFERENCE AGENDA
Wednesday, May 6, 2009
12:00 noon – 2:00 p.m. Eastern Time**

Wednesday, May 6, 2009

12:00–12:10 p.m.	Welcome - Roll Call - Overview of Agenda	Dr. John Giesy Subcommittee Chair
12:10–12:15 p.m.	Administrative Procedures	Greg Susanke Subcommittee DFO, Office of Research and Development
12:15–12:30 p.m.	Overview of Draft Report	Dr. John Giesy Subcommittee Chair
12:30–1:00 p.m.	Discuss Draft Report	STS Mid-Cycle Subcommittee
1:00–1:10 p.m.	Public Comment	
1:10–1:50 p.m.	Discuss Draft Report	STS Mid-Cycle Subcommittee
1:50–2:00 p.m.	Discuss Next Steps	Dr. John Giesy Subcommittee Chair
2:00 p.m.	Adjournment	