

**U.S. Environmental Protection Agency (EPA) Board of Scientific Counselors (BOSC)
Subcommittee for Sustainable and Healthy Communities (SHC)**

Teleconference Meeting Minutes

November 4, 2015

Date and Time: November 4, 2015, 11:00 a.m. to 2:00 p.m. EST

Location: Teleconference

Meeting Minutes

Provided below is a list of the discussions that took place during the teleconference with hyperlinked page numbers. The minutes follow. The Agenda is provided in Appendix A while participants are listed in Appendix B.

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Convene the Teleconference, Welcome and Roll Call

Mr. Jace Cujé, Designated Federal Officer

Mr. Jace Cujé began the teleconference and took roll. Subcommittee members present during the teleconference included:

- Robert B. Richardson, Ph.D., Subcommittee Chair, Associate Professor, Department of Community Sustainability, College of Agriculture and Natural Resources, Michigan State University
- Courtney G. Flint, Ph.D., Subcommittee Vice-chair, Associate Professor, Department of Sociology, Social Work & Anthropology, Utah State University
- Todd BenDor, Ph.D., Associate Professor, Department of City and Regional Planning, University of North Carolina at Chapel Hill
- Robert Cervero, Ph.D., Professor and Chair, Department of City and Regional Planning, University of California, Berkeley
- Andrew Dannenberg, M.D., MPH, Affiliate Professor, Department of Environmental & Occupational Health Sciences, School of Public Health, University of Washington

- Richard Feiock, Ph.D., Professor and Eminent Scholar Chair, School of Public Administration and Policy, Florida State University
- Carlos Martin, Ph.D., Senior Research Associate, Metropolitan Housing and Communities Policy Center, The Urban Institute
- Peter B. Meyer, Ph.D., President and Chief Economist, The E.P. Systems Group, Inc.
- Earthea Nance, Ph.D., PE, CFM, Associate Dean, School of Public Affairs; Associate Professor, Department of Urban Planning & Environmental Policy, Texas Southern University
- Matthew Naud, Environmental Coordinator, Systems Planning Unit, City of Ann Arbor
- Mike Steinhoff, Program Manager, Tools & Technical Innovation, ICLEI-Local Governments for Sustainability, USA
- John Tharakan, Ph.D., Professor and Director of Graduate Studies, Department of Chemical Engineering, Howard University
- Bill Tomlinson, Ph.D., Professor, Donald Bren School of Information and Computer Sciences, University of California, Irvine

Mr. Cujé also introduced another attendee—Ms. Katie Missimer, Manager of Environmental Policy at the American Forest and Paper Association—joined the meeting.

Mr. Cujé introduced himself as a full-time employee at the Office of Research and Development (ORD), Office of Science Policy. He was appointed to serve as the Designated Federal Officer (DFO) for the Board of Scientific Counselors (BOSC) Sustainable and Healthy Communities (SHC) subcommittee, essentially functioning as a liaison between the subcommittee and the SHC research program. His responsibilities as the DFO included preparing and approving meetings and agendas, attending the meetings, and ensuring all Federal Advisory Committee Act (FACA) procedural requirements are followed.

Mr. Cujé stated the purpose of the teleconference was to discuss the subcommittee's draft report, which highlights the subcommittee's findings and recommendations on the future direction of ORD's SHC research program. The findings and recommendations were based on the materials, presentations and posters that were provided by the SHC research program at the September 2015 face-to-face meeting in Research Triangle Park (RTP).

Mr. Cujé explained the subcommittee ultimately needs to have a final draft report sent to the BOSC Executive Committee by mid-November. That will allow the Executive Committee members enough time to conduct a thorough review of this report in preparation for their December 2015 face-to-face meeting. Pertaining to logistics, Mr. Cujé stated he was leaving the line on mute at the moment and suggested everyone keep their phones muted until requested to speak or when they needed to pose a clarifying question. The subcommittee chairs would be leading the deliberation and if a question arose requiring an U.S. Environmental Protection Agency (EPA) response, the chairs would recognize the Agency staff that would need to respond. He told subcommittee members to identify themselves before speaking so the meeting minutes could accurately reflect the discussion. The minutes would be certified and made public within 90 days of the teleconference.

Mr. Cujé explained BOSC was established under FACA and operates at the request of ORD to provide advice and recommendations on both technical and management aspects of ORD and its research programs. The Executive Committee was re-chartered in 2014. While the Executive Committee itself is chartered under FACA, ORD has since established subcommittees to provide more in-depth expertise on and review of the individual research programs. This teleconference will focus on the SHC research program. He mentioned that everyone from the public that contacted him and expressed an interest in the meeting had received the call-in details and there was an electronic public docket established for the meeting if anyone had follow-up comments they would like to submit.

BOSC members are Special Government Employees and cannot possess conflicts of interest or have an appearance of not being able to provide impartial advice. Mr. Cujé stated he had worked with the EPA officials and subcommittee members to ensure the appropriate ethics regulations were satisfied. He reminded subcommittee members that if during the course of the research program review, which could last through the following years, they should inform him if they discover a potential of conflict of interest in any of the topics under discussion.

Mr. Cujé concluded and turned the meeting over to Dr. Richardson and Dr. Flint.

Review of the Agenda and Opening Remarks

Dr. Robert Richardson, Chair & Dr. Courtney Flint, Vice-Chair

Dr. Richardson thanked Mr. Cujé and gave a special thanks to all subcommittee members for their review of the report and taking time to attend the teleconference to discuss final issues before finalizing the report and submitting it to the BOSC Executive Committee. He began by explaining the process the subcommittee used to arrive at this point.

Dr. Richardson stated that after the face-to-face meeting in RTP, they worked with the facilitators of the four breakout groups that took on the six charge questions. They worked in small groups, mostly by email, to finalize their response to the charge questions. Dr. Richardson noted he and Dr. Flint worked together to integrate the responses into the document that was distributed to the subcommittee.

Dr. Richardson began the discussion with the specific goal to ensure full participation of the entire subcommittee while recognizing it was a challenge for approximately 12 people to participate in a conference call at the same time. He proposed going through roll call to allow each to briefly provide comments on the report as a whole, including general feedback and whether it captured the essence of the discussions at the face-to-face meeting. He prefaced this by acknowledging this kind of review could get quite extensive, but they must set some limits. Dr. Richardson noted they had all had limited engagement with the program at that point (a few materials and the days in North Carolina), so it was important to keep that in mind as they reflected on the report as a whole. He asked Dr. BenDor to start.

Discussion and Approval of Draft Report

Subcommittee

Dr. BenDor stated most of his focus had been on charge question 4 and he believed it reflected their discussion in their group. He didn't see major changes he would want to make at this time.

Dr. Cervero spoke next and said, given some of the challenges of trying to find a collective voice among 15 people, he thought the draft report produced was remarkably coherent, thoughtful, and informative. He was part of charge question 6, noting they went through many iterations. For the most part, they had a great meeting and he was satisfied with what they had come up with and felt they accomplished what they had set out to do.

Dr. Dannenberg had minor comments he had already sent to Mr. Cujé, but overall thought it was very well done. The only global comment he made was to look in each section and see if the recommendations were clear enough or “actionable” and if it happened, would they know it? Their section mentioned said they should be “mindful of some information” and he believes that was not a very actionable type of statement. He thought it may be worth looking through the recommendations to see that they were worded in a way to provide a clear message as to what was being asked. In general, most accomplish that, but there were others that the wording was less clear. Overall, he believed the draft report to be nicely done. Dr. Richardson thanked Dr. Dannenberg and mentioned he should have acknowledged at the beginning that the chairs moved some recommendations around because they felt, in some cases, they fit better in another charge question, especially some of the overarching questions. He also notes that the point about actionable recommendations would be reflected on when they reached specific recommendations and, at that point, the chairs will ask for feedback.

Dr. Feiock agreed the report came together very nicely. He was involved in charge questions 1 and 5, and primarily took a lead on charge question 1. He believed the report reflected their individual group as well as the entire subcommittee discussions, noting he was impressed by the chair and vice-chair’s integration of all of their responses and how they integrated well together. He did point out some redundancy and agreed with Dr. Dannenberg that the recommendations should be actionable. Dr. Richardson asked Dr. Flint if she would like a chance to respond to the question.

Dr. Flint stated she did not have anything further to add except that they had gone through those comments received by the preceding Monday. They planned to bring some of those into a new draft to which the subcommittee members did not yet have access. Other comments were on the document for discussion as they went through it that day. They then would incorporate the responses from those who had sent comments the day before as they moved forward. They had been noted and would address each and every one of the edits in the final document. She encouraged the members to bring those up again for discussion if they chose, but wanted to be sure the members understood that the chairs had them and would be addressing all of them. Dr. Flint believed the draft had come together really nicely, and they tried to do their best to ensure comments were in the correct section. She proceeded to encourage members to let them know if a certain change did not work as they went through the document.

Dr. Martin said he also had no major revisions. . His primary comment pertained to “actionability” and had already been stated. The second was on redundancy. He was primarily aware of that because he was involved in charge questions 2 and 3, which focus on partners, and there were a lot of references to other partners with different definitions or context in responses to the other charge questions. The third area was an overarching charge for them as a subcommittee. He acknowledged a specific recommendation that talked about them as a group, and suggested pulling those types of statements and ensuring they were overarching instead of

recommendations. He also advised they have an overarching recommendation on how charge questions were formed and provided to the subcommittee. He categorized those all as minor tweaks. Dr. Richardson said they would return to those points when they came to the relevant sections of the draft report.

Dr. Meyer said the best way of summarizing his sense of what had been accomplished was that it looked a lot more “like a horse than a camel.” He stated it did not look like a report that had been produced by all 15 of them. He gave his compliments to the editors. His major concern involved the use of the word “community” because they were using it as though it was a municipality and other times as a neighborhood. Dr. Meyer believed more clarity was needed there, but the problem there was that they were stuck with the generic use of the word in the charge provided to them as well as the name of the organization to which they were providing advice. He acknowledged the uncertainty of how they escape that.

Dr. Nance reminded the subcommittee she was not able to attend the face-to-face meeting, and she would be submitting minor comments. She stated she was impressed with the document given the stretch they had to take among the experts there. The document read very well. She noted that she was particularly impressed with the charge question 4 response and that particular question was one of the fundamental aspects of the work. She said she wanted to comment on a few particular items associated with that question. She suggested something could be said about the demographic shifts that were occurring in the United States and when they use the word “minority” in some places, they were not the minority anymore. That would continue. Their conceptualization of the “minority,” similar to their conceptualization of “community,” would be problematic as that happened. One comment, in terms of priorities for the future, the recommendations section could include these considerations. She also commented there was a line of research just called “sustainability” and it was the linkage between environmental justice and sustainability. She wasn’t sure if the subcommittee considered that literature, but if it hadn’t already, they could add it as another potential way of conceptualizing the same problem or incorporating it in to what was being called “environmental justice.” She couldn’t say enough of how impressed she was. Dr. Richardson appreciated her contribution even though she was unable to attend the meeting. He looked forward to interacting with her in an upcoming meeting.

Mr. Naud appreciated his invitation as well as the other partners, Dr. Martin and Mr. Steinhoff. He was overall impressed with the process and the document. His overarching comment echoed two of the points already mentioned. The first was the definition of “community” since, as a member of the Urban Sustainability Directors Network, there was a huge amount of work going forward with cities and practitioners as EPA SHC projects evolve. He looked forward to the Agency reaching out to the broader group of cities and ground-truthing tools as early as possible in development to ensure they are as useful as possible. To the point of environmental justice and equity, he had just had their meeting with sustainability directors and there was a significant amount of collaboration across many cities about how they build equity to their sustainability work. To that extent, if the Agency and SHC were interested, he was happy to share that information. He congratulated all and expressed appreciation for being a part of this effort.

Mr. Steinhoff said his comments echoed all of Mr. Naud’s comments. He believed the document read well and accurately reflected the tone of the conversations and content they developed in the face-to-face meeting. He stated the charge questions added good structure to how the overall

process for the work of the SHC moving forward. Implementing the recommendations, he thought, would lead to more in-depth conversation moving forward. He looked forward to it.

Dr. Richardson stated they received comments from Dr. Tharakan the day prior to the teleconference and asked if he had any overarching comments about the report. Dr. Tharakan was impressed with how the report came together and appreciated the configuration in terms of the structure, especially the organization into the observations and strengths and then the recommendations. He apologized for his comments being so late, but received confirmation from Dr. Flint that they were received. He did not have any major issues, but would echo some previous points in terms of the recommendations being actionable as well as what Dr. Nance explained regarding sustainability. There was a lot of work already occurring in terms of sustainability, environmental justice, and well-being emphasizing that EPA should integrate and incorporate into their thinking. He stated the report read well and he thanked the subcommittee.

Dr. Tomlinson agreed with the comments made by everyone else. He said it was exciting to be part of a group in a position to suggest some of these recommendations to EPA, ways in which EPA should be empowered to act and what projects they should consider undertaking. He sent his minor comments a few days prior.

Dr. Richardson thanked the subcommittee and began to explain the agenda. Mentioned that he and Dr. Flint had received some comments that corrected some minor grammatical errors or consistencies. He encouraged that as they went through the sections during the teleconference, to focus on content and recognize that, as Dr. Flint mentioned, they had started to develop a new document reflecting some integration based on the comments received. He suggested they proceed by section, first by sections that he and Dr. Flint had specific questions to the subcommittee. He stated he would then invite general comments, suggestions, or questions about the section and then move to the next section. Dr. Flint added that if points were submitted, but aren't raised, it is because the chairs felt as if they were consensus items that blended well with all of the sentiments that they had heard or they involved very minor wording, with Dr. Richardson reiterating that they took some noncontroversial items and accepted them.

Dr. Richardson began with section one of the report, labeled "Background." He stated there weren't comments received from the members raising major issues. He didn't have questions to raise with the subcommittee, so he invited members to speak upon any considerations before they developed the final report. Hearing none, he moved to section two, labeled "Charge Questions and Context." He noted that section was mostly text provided to them and again, they had received no major concerns by email from any members on that section. He again invited any specific comments people wanted to raise about that section. Hearing none, he moved to section three, "StRAP Objectives and Priority Research Topics." The third section was also mostly text provided to them and he had received no major comments from any members on that section. Again, Dr. Richardson allowed time for further comments and considerations about the third section. There were none.

Dr. Richardson moved on to section four, labeled "Process." He stated that this section described the process that they underwent as a subcommittee for the review. It was text they developed that described what they received and confirmed the dates of the meeting. He allowed feedback for this section. There was no feedback.

Moving to section five of the draft report, Dr. Richardson noted he anticipated questions. One comment addressed the flow of the remainder of the report. In some sections, they refer to project numbers and in other sections, they just refer to the tool with no project number. He stated they needed to make that consistent. In discussion with Dr. Flint, Dr. Richardson proposed they not refer to the project numbers and instead to the tools themselves, based on the assumption that the tools and their managers would know to which projects they were referring. He asked the subcommittee if anyone had any concerns with eliminating project numbers consistently throughout the response to charge questions. Hearing none, Dr. Richardson stated they would make that adjustment to remove the references to the project numbers.

Dr. Richardson invited responses to a question raised by a subcommittee member regarding open data. They made a casual reference to it in the report, but the comment raised by a member compelled them to bring the question to the subcommittee in terms of how they would feel about being more explicit regarding addressing issues related to sharing and open data. He opened the floor for comments and perspectives. Dr. Flint added that it was raised in the context of recommendation 1.3 referring to data that may have been related to the 50 cities included in the EnviroAtlas project, questioning whether they wanted to encourage the open sharing at the local level of data that was related to those places. There was a question about how many of those communities encompassed open records and publicly shared data beyond what may have been included in the EnviroAtlas. She explained that was the context of the issue. Dr. Richardson thanked Dr. Flint for the clarifying point and asked the subcommittee for responses on the emphasis.

Dr. Meyer stated the two questions that aligned, but should be separated include the generic question about open data and whether the 50 cities were selected because they possessed open data. He asked how dependent EnviroAtlas was on open data. He was unsure because he had not looked at the EnviroAtlas in sufficient detail in order to answer that question.

Dr. Feiock agreed there were two separate questions. With regard to recommendation 1.3, he believed that it was directed to the process by which sites were selected and, if it was because of the availability of open data, that should be transparent. It should be clear as to what the selection criteria and process was and wasn't directed specifically to the data generated there. He stated he thought it did open up a larger question that should be discussed about open data.

Mr. Naud stated that, as a city, they assume all of their data is open and there was a big push to make all of their data open. He commented open data was an important premise for the Agency to follow. Their role is to also create those data templates so other cities that have good local data and want to participate have clear and transparent information as to how the data would be organized and provided to the Agency such that it can be included.

Dr. Tomlinson mentioned in charge question 5, there was also a sentence reading "the subcommittee applauds EPA's commitment to make all of the Agency's software programs available by an open source." He suggested taking that sentence plus a statement on open data and moving it to charge question 1 in order to reference back to charge question 5 or anywhere else it seems relevant. He noted open source and open data were separate, but they fall into the broader category of taking all of what is produced and collected and making it available to the world. He stated that could be a structural rearrangement of that sentence later in the report.

Dr. Richardson thanked Dr. Feiock for clarifying the context in which the statement was made about the ad hoc process, noting he and Dr. Flint would reflect on the suggestion of moving the statement about software and create a more cohesive message about open data. He thanked the speakers for their comments and stated that was the only question he and Dr. Flint wanted to raise under charge question 1. with Dr. Flint clarifying it was under recommendation 1.3. Dr. Richardson then opened the floor to the members for any other issues they would like to raise about charge question 1 and the responses before proceeding.

Dr. Flint asked Dr. Tharakan to clarify his highlighting under the particular strength of charge question 1. What he was drawing attention to in the middle of the paragraph in highlighting “based on EPA’s overarching strategic priorities.” Dr. Tharakan mentioned he was saying that they had to switch the arrangement of the wording around. He noted the correction was “based on EPA’s overarching strategic priorities” as opposed to “based on overarching EPA’s strategic priorities.” Dr. Flint stated she appreciated that clarification.

Dr. Flint continued by asking Dr. Tharakan about his comments in recommendation 1.4 about providing useful metrics by which large scale outcomes could be measured. She asked if they should emphasize that already established systems and scales metrics of human well-being should be incorporated, as appropriate. Dr. Flint noted those were dealt with in charge question 4 and would leave that to charge question 4, given its focus. In recommendation 1.6, Dr. Tharakan made a comment suggesting a requirement of any proposal be a section that addresses the analysis and its broader impact. She asked Dr. Tharakan if there was anything he wanted to add to that recommendation regarding what he was suggesting. In terms of how ORD approves research projects and solicit proposals, Dr. Tharakan stated he felt the actual proposal should address how that explicit connection was being made and to have that as one of the metrics for the evaluation of the research being proposed. Dr. Flint said they would edit accordingly unless there were any oppositions. Dr. Richardson asked the subcommittee if there were any comments or reactions to that thread.

Hearing none, Dr. Richardson moved forward to charge question 2. He and Dr. Flint noted that another member recommended that they add the phrase “apparently more thoughtful and robust than earlier EPA efforts” in the very last paragraph under “general observations.” They say that the activities become more formal, but it is asked “more formal than what?” The presumption is that they become more formal than earlier EPA efforts. He invited Dr. Martin or others from Breakout Group B to ensure they wrote that phrase to encompass what was being suggested. Dr. Martin agreed it was consistent with his and Mr. Steinhoff’s addition there. Mr. Steinhoff agreed as well.

Moving to the next section labeled “particular strengths,” Dr. Richardson and Dr. Flint raised the question again to that group that it was suggested in a comment that the last sentence of the paragraph would be better positioned under “opportunities for improvement” because it was not referring to a strength but rather a suggestion. It also occurred to them that much of that paragraph, beginning with the second sentence “the involvement of EPA offices...” was unclear. The remainder of that paragraph should be moved to “opportunities for improvement.” He asked the group that developed that paragraph if they agreed, and if they did, if they thought there should be other points under “particular strengths” added. Dr. Richardson asked for Dr. Martin’s input first and then stated after, he would ask the other members of the group for a follow-up.

Dr. Martin clarified he would not mind moving the entire first paragraph under “particular strengths” to “opportunities for improvement.” It included a list of organizations they suggest could be more articulated, so they were definitely opportunities for improvement. For the second paragraph, Dr. Martin noted that was already occurring. Certainly, expanding it is an opportunity for improvement, but it was a current strength that they allow informal arrangements. He argued that particular paragraph not be moved and remain in the current strengths.

Dr. Richardson thanked Dr. Martin for his feedback and clarified they were suggesting that only the latter half of the first paragraph be moved and actually thought the first sentence of the first paragraph connected nicely to the second paragraph, which would remain under “particular strengths.” Dr. Martin agreed with the change. Dr. Richardson asked if there was any further input from the other members of that group and heard none.

Dr. Richardson mentioned they received very minor comments on the other sections and most comments on the charge questions were noncontroversial. He then asked the subcommittee members for any feedback regarding charge question 2.

On rereading charge question 2, Dr. Martin realized the paragraph between recommendation 2.1 and 2.2 was itself a different recommendation because it was about the level of resources that were allotted. He suggested that paragraph become its own recommendation and consider how it reflects because he believed they talked about allocation of resources in some of the other charge question responses. He explained it was not so much the process taken by the office, but also the amount of resources. Dr. Richardson thanked Dr. Martin and explained he thought that paragraph was a clarifying point from the previous recommendation because of how it began. Dr. Martin agreed he had done the same thing, even though he had written the paragraph. Dr. Richardson clarified the general point of the paragraph was the recommendation that SHC explicitly define partners. Regarding Dr. Martin’s comment that the paragraph should become its own recommendation, Dr. Richardson asked for feedback from the subcommittee members.

Dr. Meyer clarified in every one of the instances there, they could argue they need more resources. He asked if they were saying how many other places they needed more resources for, or how many resources should be allocated to, which was different than simply saying “more resources.” He asked which language they wanted to include if it were a second recommendation. He wasn’t sure it was a good idea to say SHC should spend more money when there wouldn’t be any more money. More attention should be on the question “how many more resources should be allocated to” in the way they should be thinking about some of the recommendations. Dr. Martin added that reallocation was the sentiment behind that specific paragraph. He agreed with Dr. Meyer’s comment that they should be clear in all references to resources to explain if they were talking about focused attention versus appropriation. He guessed they could not make recommendations about appropriation because SHC could not control appropriation. Dr. Flint assured they would be mindful of that when making their final edits and that they will not overstep their bounds.

Dr. Richardson stated they would take those comments into account and they would be reflected in the report. Moving to charge question 3, he explained there were no major concerns brought to them that they wanted to raise with the subcommittee. He invited comments on the response to charge question 3.

Dr. Martin brought up recommendation 3.3 and stated he had two points to clarify. He explained this was another recommendation involving resources and in that sense, he thought they weren't really meaning "additional resources." The resources they were referring to in terms of leveraging were co-funders or co-supporters. They would help leverage the funds that were contributed. He asked the chairs be mindful they are discussing resources in terms of staff time and extension and discussing partners, meaning their funders, aside from partners as it had been defined before.

Dr. Richardson stated they would note that. He also noted in recommendation 3.1, the phrase "presentation of a business case" drew a comment from one member that they should avoid suggesting they are recommending cost-benefit analysis or some type of demonstration of a business case. Dr. Richardson and Dr. Flint revised the phrase to state "through the analysis of the feasibility for investment." He invited comments and suggestions from the subcommittee if they had concerns.

Mr. Steinhoff explained the idea of "business case" in that recommendation was to get at the justification of the activity as it related back to how it contributed to a defined research goal or objective. Dr. Martin agreed because the replaced phrase was more of a political scenario (who was able to work, resource constraints, etc.) and what their group meant to say wasn't a monetized cost-benefit analysis, but more of a particular long-term research agenda, community, or EPA program office with which to align, better linking the internally-derived research project and portfolio with the EPA mission.

Dr. Meyer suggested the phrasing "through the presentation of an EPA mission rationale for the investment." Dr. Martin agreed that was a great suggestion and asked for feedback from Mr. Steinhoff and Mr. Naud. Mr. Steinhoff agreed with the suggestion as well. Dr. Richardson mentioned they would take those comments into account on the final report and asked for any further comments in response to charge question 3. Dr. Martin asked if the second to last sentence of that same paragraph was an incomplete sentence. He explained it was recommendation 3.3 and a verb was missing. Dr. Richardson said the error will be fixed.

Dr. Richardson raised one issue pertaining to charge question 4, referring to recommendation 4.4. One member commented on a sentence in the middle of the paragraph, which read "to allow for a focus on emerging challenges, global and national issues and drivers, such as climate, integration..." Dr. Richardson explained the member commented that the list should come earlier in the report, perhaps where they discussed sustainability as an objective, because it is so critical. He and Dr. Flint agreed they should better integrate it into charge question 1 where they first mentioned that they supported the emphasis on sustainability. With that in mind, Dr. Richardson asked the subcommittee members for comments on whether they should leave the sentence as is or relocate it to an earlier part of the report. Dr. Dannenberg believed they sounded appropriate to reposition the sentence. Dr. BenDor stated he would be fine with that revision as well. The point of the comment was that SHC should be going ahead of those problems. Dr. Richardson explained they would take that into account as they revised the section.

When asked for general comments in response to charge question 4, Dr. Martin commented about the beginning of the response in "general observations." The second paragraph references green agendas as being sustainability and brown agendas as being environmental health. He believed they should keep the parentheticals, but remove the green and brown agenda. Dr. Nance

said if they could cite McGranahan's book where that statement was originally proposed, they would see that in the literature. Dr. Martin explained it was still his terminology being a political descriptor of what the agendas were. Dr. Nance understood and Dr. Martin continued by saying it was problematic to refer to an environmental health agenda as being brown. He suggested they only use the technical parentheticals. Dr. Flint clarified they would be removing the words in quotations and keeping "this question relates to the integration of the sustainability agenda and the environmental health agenda." Dr. Nance explained she would completely support that. Dr. Dannenberg and Dr. BenDor agreed.

Dr. Flint noted there was an additional comment from Dr. Tharakan on the section regarding "opportunities for improvement" asking they add "and to focus on integrating this extent research study and systems into EPA thinking" at the end of the section. She supported incorporating that. There were no further oppositions or comments relating to charge question 4.

Dr. Richardson moved to charge question 5, explaining the chairs had a comment they wanted to raise with the subcommittee. He noted it was the only response to charge questions that included the list of questions they saw following the second paragraph under "general observations." Since developing the report, they discussed the idea of removing the list of bulleted questions, albeit one additional question was offered as a suggestion, especially given the comment Dr. Richardson made at the beginning that they have had limited engagement with the program up to that point, and would continue learning more about the program in ways that would provide answers to those questions. He noted that some of the questions regarding the development of tools would be answered in the positive. Thus, the idea of removing the bulleted questions was raised with the subcommittee.

Dr. Tharakan liked the idea of keeping the questions because they drew attention to EPA's focus on their tools. They ask specific questions about the usability and actionability of those tools. He wanted to see those questions included and believed they fit in well in that charge. He also wanted to see the additional question he had incorporated about whether there was sufficient public outreach to not only make the tools available and accessible, but usable by members of the community. Dr. Richardson noted those questions could be valuable as they continued to interact with the program. He asked for further comments on the idea of leaving or deleting the list of questions. Hearing none, Dr. Richardson stated he and Dr. Flint would take Dr. Tharakan's comments into consideration and reflect those in the following revision. Dr. Flint clarified the list of questions actually emerged in charge question 4, but as they related to tools, which was the focus of charge question 5, they had moved those from charge question 4 to charge question 5. She believed they worked fine where they were because they were in a section called "General Observations." They were a general thought process related to tools that she thought EPA and SHC would find helpful.

Dr. Tomlinson stated he was also for retaining the questions. He thought they would help EPA understand the kinds of information they should provide to them in later meetings. Dr. Dannenberg also agreed to keep them because they were more actionable and specific than other parts. Dr. Meyer also argued in favor of retaining the questions because he thought they would want those kinds of questions asked about tools, but not ones questioning how helpful they are. Distinguishing tools from other research activities were important. Dr. Richardson thanked everyone for their comments and they would proceed by keeping them in that section.

One more member question brought to Dr. Richardson's and Dr. Flint's attention that needed to be raised with the subcommittee was apparent in recommendation 5.1. It recommended that the catalog of tools include information on the topic the tool supports, geographic scale of the tool, and the period of time the tool would be supported. A member suggested they delete the reference to the period of time the tool would be supported because SHC may not know that. In discussion, the chairs favored the idea of keeping it because they were at least planning for a particular time horizon and tools are not supported when they become irrelevant. Dr. Richardson invited comments on deleting or keeping the phrase. Dr. Feiock proposed inserting a projection of how it would be supported. Dr. Richardson supported that comment. He then invited general comments to charge question 5. There were none.

When moving to charge question 6, Dr. Richardson encouraged members to find the section called "opportunities for improvement." One member raised the question about the phrase "problems of human impacts and dependence on planetary systems" and suggested the word "planetary" implied cosmic. They proposed to change the word to "ecological." There were no objections.

Under the section "challenges," Dr. Richardson read another comment regarding the final sentence that referred to "a related challenge is the expense of data collection." The member suggested that maybe what they were referring to was the "expanse" of data collection. They proposed they change the word "expense" to "cost" which seemed more appropriate. Dr. Meyer agreed with the word "cost" and that "expense" could have the ambiguous meaning of "expanse." There were no further comments.

The final question Dr. Richardson raised was under Figure 1. Many members responded with much support for the figure, but one comment noted concepts related to health and well-being were not mentioned in the figure and those were clearly important and integral to the SHC program. He had sent the comment to Dr. Elena Irwin who was the facilitator of that breakout group that developed the figure, and she agreed it could easily be integrated into the figure. Because the idea was presented to them and Dr. Irwin seemed willing, he asked if there were any concerns regarding the integration of health and well-being into Figure 1. Dr. Tharakan stated he had no issues with the addition. Dr. Meyer also agreed that was a logical inclusion and looked forward to seeing the revision. Dr. Cervero agreed as well and explained it was explicitly assumed in community outcomes that collectively, all of the outcomes spoke to better health. However, he believed it to be useful if they were more explicit about physical health and well-being. Having raised all of the major concerns, Dr. Richardson invited general concerns in response to charge question 6. There were none.

Next, Dr. Richardson brought up a minor comment in section 6, "summary of recommendations and conclusions." One member commented there may have been too much in the second to last paragraph to say "perhaps the strongest recommendation." Having to reach consensus in the report, the member suggested they soften that language to be read as "another important recommendation from the subcommittee." There were no further comments on that issue.

Summary and Next Steps

Dr. Robert Richardson, Chair & Dr. Courtney Flint, Vice-Chair

Dr. Richardson stated all comments would be taken into consideration, and he and Dr. Flint will generate a new report that they will share with the subcommittee members before it is submitted to the Executive Committee no later than November 17, 2015. That would be an opportunity for the members to review the report in its near-final form. He anticipated there wouldn't be any major issues at that stage. He invited Dr. Flint to clarify any next steps.

Dr. Flint mentioned she had received Dr. Nance's comments on the document and had glanced over them quickly and believed that with the exception of two things, all comments and edits were raised by others and the chairs were mindful of them. She thanked the subcommittee for reiterating those and also bringing up other edits they hadn't noticed. One thing she drew attention to was the issues of demographic shifts in charge question 4. Dr. Flint thought that could be easily incorporated. Dr. Nance also commented on drawing attention to the ideas, concepts, and literature on the idea of just sustainability. Dr. Flint believed they could incorporate those as well, but asked for feedback on Dr. Nance's comments. There was none.

Dr. Richardson invited comments from subcommittee members on the next steps of the process. Dr. Martin raised a comment he said at the beginning of the teleconference about the phrasing of the charge questions. He wasn't sure if it made more sense to keep that out of their recommendations or refer Dr. Mike Slimak or the BOSC Executive Committee on that. He noted Dr. Slimak mentioned during their meeting that in many cases, they were artful. Dr. Martin found it difficult to follow the line of thinking behind the questions. He recommended someone on the Executive Committee review them with Dr. Slimak before the subcommittee received them. Dr. Flint mentioned she and Dr. Richardson could bring that to the Executive Committee meeting with them in December 2015. She thought all groups would benefit from that point.

Dr. Tomlinson thanked the chairs for their thoughtful job and taking everyone's comments and considerations into account. Dr. Richardson thanked him. Dr. Flint referenced the phrasing of the actionable language for the recommendations. She asked if they call out a shorter actionable statement outside the paragraph or just word it to ensure that when they state the recommendation in the first line of the paragraph that what follows the word "recommend" is an actionable word like "expand" instead of "expanding." She asked for more clarification from the subcommittee members on how might they best respond to their requests on making the recommendations as actionable as possible. Dr. Dannenberg mentioned the one thing about "actionable" is that it should be viewed as "if it occurs, how would you know it has occurred?" He stated that was the wording needed.

Hearing no additional comments, Dr. Richardson turned the meeting over to Mr. Cujé to adjourn the meeting.

Adjourn the Teleconference

Mr. Jace Cujé, Designated Federal Officer

Mr. Cujé thanked Dr. Richardson, Dr. Flint, and the entire subcommittee for pulling together the report in a short amount of time. He appreciated the opportunity to listen in and hear the exchanges. He looked forward to the next couple of years. Mr. Cujé asked, in terms of next steps, when the subcommittee members might expect the next iteration, so members would have time to review the revised draft.

Dr. Richardson suggested they aim to share the final report with the subcommittee members by Friday, November 13, 2015, which would give the members a weekend and one business day to review and submit comments on November 17, 2015. Based on the teleconference, Dr. Richardson didn't believe there would be any major comments after the members received the final report. Dr. Flint requested they change the date to Thursday, November 12 because she would be completely unavailable on November 13. Dr. Richardson said he didn't have a problem with that.

Dr. Richardson thanked the subcommittee on behalf of himself and Dr. Flint on their engagement in the process. He expressed appreciation for their willingness to respond promptly and provide thoughtful feedback.

Mr. Cujé noted they had not received any written public comments or requests to express oral comments. He expressed his appreciation for everyone's hard work and focus and looked forward to seeing them next year, adjourning the meeting approximately 12:30 p.m., Eastern.

Respectfully Submitted:

Certified as Accurate:

/Signed/

/Signed/

Mr. Jace S. Cujé

Dr. Robert Richardson

BOSC SHC Subcommittee DFO

BOSC SHC Subcommittee Chair

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 by the BOSC Executive Committee following its public meetings.

Appendix A: Agenda

**United States Environmental Protection Agency
Board of Scientific Counselors (BOSC)
Sustainable and Healthy Communities (SHC) Subcommittee**

Teleconference Agenda – November 4, 2015, 11:00 AM-2:00 PM EST

Call-in: 866-299-3188

Code: 202-564-1795

Meeting Purpose: Discuss the BOSC SHC Subcommittee draft report and recommendations regarding the future direction of the Office of Research and Development’s SHC research program.

TIME	TOPIC	PRESENTER
Wednesday, November 4, 2015		
11:00 a.m.	Convene the Teleconference, Welcome and Roll Call	Jace Cujé, Designated Federal Officer (DFO)
11:10 a.m.	Review of the Agenda and Opening Remarks	Robert Richardson, Chair and Courtney Flint, Vice Chair
11:20 a.m.	Discussion and Approval of Draft Report <ul style="list-style-type: none"> • Background • Charge Questions and Context • StRAP Objective and Priority Research Topics • Process • Subcommittee Responses to Charge Questions <ul style="list-style-type: none"> ○ Charge Question 1 ○ Charge Question 2 ○ Charge Question 3 ○ Charge Question 4 ○ Charge Question 5 ○ Charge Question 6 • Summary of Recommendations and Conclusions 	Subcommittee
1:45 p.m.	Summary and Next Steps	Drs. Richardson and Flint
2:00 p.m.	Adjourn the Teleconference	Jace Cujé, DFO

Appendix B: Participants

BOSC SHC Subcommittee Members:

Robert B. Richardson, *Chair*
Courtney G. Flint, *Vice Chair*
Todd BenDor
Robert Cervero
Andrew Dannenberg
Richard Feiock
Elena G. Irwin*
Carlos Martin
Peter B. Meyer
Earthea Nance
Matthew Naud
I. Leslie Rubin*
Mike Steinhoff
John Tharakan
Bill Tomlinson

* Unable to participate

EPA Designated Federal Officer (DFO): Jace Cujé

Other Participants: Katie Missimer, American Forest and Paper Association

Contractor Support: Camden Byrd, ICF International