

Advisory Committee on Climate Change and Natural Resource Science (ACCCNRS)

Meeting Summary

January 22-23, 2014

The Advisory Committee on Climate Change and Natural Resource Science (ACCCNRS) met for the second time on January 22-23, 2014 at the JC Raulston Arboretum in Raleigh, NC. Following is a summary of the discussions and meeting outcomes.

Summary of ACCCNRS Actions/Recommendations

- The ACCCNRS agreed on the following working definition of actionable science: “Actionable science provides data, analyses, projections, tools, or approaches that can support decisions regarding assessment or management of the risks and impacts of climate change. It is ideally co-produced by scientists and decision-makers, and creates rigorous, understandable, accessible, and usable products to meet the needs of stakeholders.”
- The Committee agreed to recommend that Department of Interior (DOI) convene a meeting with Tribal Leaders and staff working with Climate Science Centers (CSCs) and Landscape Conservation Cooperatives (LCCs) to identify strategies to improve tribal awareness of and participation in CSCs and LCCs.
- The Committee agreed to recommend that DOI and U.S. Department of Agriculture (USDA) co-convene a meeting with private landowners and staff from CSCs, LCCs, and the USDA Regional Climate Hubs to build awareness of these entities.
- As an outcome of this meeting, USGS staff will develop a draft strategy for NCCWSC and the CSCs to share with the Committee before the next meeting.

Next Steps

Below are next steps for the ACCCNRS:

- Committee members will provide feedback to the Role WG on their recommendations regarding climate science services coordination.
- The TIP WG will circulate the draft primer and TK guidelines to the Committee for review and input.

- The Actionable Science WG will consider the Committee's suggestions, review documents mentioned, and if appropriate, prepare a draft guide based on the outline shared at this meeting, for ACCCNRS review at the next Committee meeting.
- Bruce Stein from the Program Evaluation WG and David Behar and Paul Beier from the Actionable Science WG agreed to coordinate across these two WGs.
- David Patte from the Role WG and Ann Marie Chischilly from the TIP WG will update the climate science inventory to include additional tribal entities/activities.
- Jeff Williams agreed to help the Role WG include a description of risk management used by businesses in the climate service inventory.
- USGS staff will develop a draft strategy for NCCWSC and the CSCs to share with the Committee before the next meeting.
- Robin O'Malley will circulate information about the composition of CSC stakeholder committees.
- Robin O'Malley will provide a description of the difference between adaptation and mitigation and to what extent each is covered in the work of CSCs.
- Meridian Institute will circulate a draft meeting summary for Committee members to review and comment on, along with procedures for finalizing the summary so that it can be made available as part of the public record of the Committee.
- NCCWSC and Meridian Institute will propose dates and locations for the next two Committee meetings and will work with WG leads to schedule the next round of WG conference calls.

Opening Remarks

Matt Larsen, Associate Director, Climate & Land Use Change and U.S. Geological Survey (USGS) and ACCCNRS Co-Chair, and David Behar, Climate Program Director, San Francisco Public Utilities Commission and ACCCNRS Co-Chair welcomed the Committee and members of the public in attendance.

Robin O'Malley, NCCWSC Policy and Partnership Coordinator and ACCCNRS Designated Federal Official (DFO), provided updates on two issues that were raised at the first ACCCNRS meeting in September 2013. First, in response to discussions at the September ACCCNRS meeting about whether private landowners are adequately represented on the Committee, Robin explained that the National Council for Air and Stream Improvement (NCASI) has confirmed that they are willing to be considered as providing a perspective from the private landowner community with the clear understanding that they will communicate only the perspectives of private landowners on science issues (as contrasted with legal/policy matters), and that ACCCNRS understands that this is not in any sense a legal "representation".

Second, regarding the concern about the perceived or real independence of an advisory committee chaired by a representative of the entity being advised (i.e. federal co-chair from

USGS), Matt Larsen explained that the key reason for having a federal ACCCNRS co-chair is to directly hear Committee members' views and recommendations, and serve as a liaison to the Secretary of DOI. He encouraged Committee members to discuss any issues that might raise potential discomfort or conflict of interest with the ACCCNRS non-federal co-chair or the Meridian Institute facilitation team. Matt and any future federal co-chair can recuse themselves from a discussion if appropriate based on such concerns.

ACCCNRS Work Group Presentations and Committee Discussion

On the first day of the meeting, each of the five ACCCNRS Work Groups (WGs) presented what they had accomplished since the first ACCCNRS meeting in September 2013, as well as their future plans. The Committee provided feedback to each WG, and on the second day of the meeting, the WGs met separately to address and discuss the Committee's feedback. The WGs then provided the Committee with updates to their work outputs and/or work plans.

Actionable Science Work Group

WG Members: Jeff Arnold, Paul Beier (Co-Lead), David Behar (Co-Lead), Cliff Duke, Peter Frumhoff, Lara Hansen, Lynn Helbrecht, Larry Irwin, Jack Sullivan, Jeffrey Williams

The Actionable Science WG presented a proposed draft definition of actionable science and a draft outline for a how-to guide of best practices for implementing actionable science. The WG identified its work as contributing to sections 4a through 4d of the ACCCNRS charter.

Discussion

Actionable Science Definition

After a thorough discussion among the Committee, there were two main edits made to the definition: 1) "tools" was included as something that actionable science provides (e.g. products such as projections and information/data sets), and 2) it was clarified that actionable science informs decisions. It was also clarified that the actionable science definition developed by ACCCNRS is specifically for purposes of the National Climate Change and Wildlife Science Center (NCCWSC) and CSC enterprise. The Committee agreed on the following working definition of actionable science:

"Actionable science provides data, analyses, projections, tools, or approaches that can support decisions regarding assessment or management of the risks and impacts of climate change. It is ideally co-produced by scientists and decision-makers, and creates rigorous, understandable, accessible, and usable products to meet the needs of stakeholders."

This definition was characterized as a working definition in order to give the Committee and WGs an opportunity to make use of the definition through internal application and to get feedback on the definition from others outside of the Committee. The Committee agreed that it will take stock of the definition, and any feedback it receives, at its next meeting.

Actionable Science Guidelines and Best Practices

Committee members offered the following suggestions for consideration by the WG:

- Clarify not only what actionable science is, but also what it is not.
- Articulate what the relationship is between actionable science, basic science, and applied science for CSCs as well as what the role is for boundary organizations.
- Address the issue of scale, which has implications for the risks, values, and impacts of climate change.
- Include guidance to CSCs on how to discuss probabilities and likelihood statements within a collaborative group of experts.
- Review, “Informing Decisions in a Changing Climate,” by the National Research Council’s Panel on Strategies and Methods for Climate-Related Decision Support and, “Actionable Knowledge for Environmental Decision Making: Broadening the Usability of Climate Science,” by Kirchoff et. al to determine if the ACCCNRS needs to develop a new guide on actionable science, or can refer to existing documents.

It was discussed that not all actionable science will directly lead to concrete action or decisions; rather some actionable science may be innovative work that ultimately leads to other science that is directly acted upon. A USGS staff member stated this more open characterization of actionable science better fits with the work of CSCs. Also, during the WG breakout sessions on the second day of the meeting, the WG agreed to define responsibilities of the parties (e.g. scientists, managers, stakeholders, etc.) involved in the co-production of actionable science

Actionable Science Work Group Linkages with Other Work Groups

It was observed that the Program Evaluation WG might use the criteria outlined in the definition of actionable science as part of the framework they are developing for evaluating the NCCWSC and CSCs. Members of the Actionable Science WG suggested that CSC-funded requests for proposals (RFPs) be evaluated to determine if they meet the criteria that will be developed within the actionable science guide.

Role of NCCWSC and CSCs in the Climate Science Service Landscape Work Group

WG Members: David Behar, Natalie Dubois, Kim Hall (Co-Lead), David Patte (Co-Lead), Richard Merrick, Paul Wagner

The Role of NCCWSC and CSCs in the Climate Science Service Landscape WG (Role WG) identified and described five main components that make up climate science services:

- 1) Climate data,
- 2) Climate data-derived products,
- 3) Science on impacts and vulnerabilities of wildlife, plants, and /or cultural resources,
- 4) Training/guidance and convening,
- 5) Developers of tools for managing data and improving use of climate science and other science in decision-making.

The WG presented its assessment of how each of the five climate service components are being addressed within the WG's initial inventory of major federal, state, academic, NGO, and tribal climate science services.

The Role WG also presented an overview of existing, climate focused federal-level MOUs between agencies within the climate service landscape, and suggested the three following options to facilitate coordination and reduce duplication of climate science service efforts.

- Option 1: Develop annexes/implementing agreements using existing MOUs;
- Option 2: Develop a new MOU between DOI-USDA-National Oceanic and Atmospheric Administration (NOAA);
- Option 3: Develop a set of talking points for the regional climate efforts of DOI, USDA, and NOAA.

Finally, the Role WG provided an overview of the Executive Order (EO) on Climate Preparedness for the President's Climate Action Plan and suggestions for how ACCCNRS member expertise can help inform implementation of the EO. The Role WG identified its combined work as contributing to sections 4b and 4c of the ACCCNRS charter.

Discussion

Existing MOUs and Partnerships

A NCCWSC staff member explained that developing formal agreements at the field level (e.g. between CSCs, LCCs, and Regional Integrated Sciences and Assessments (RISA) Program teams) is not currently a vision. A Committee member added that while there may not be coordination or active agreements between federal agencies at the national-level, people are often coordinating at the field level. For example, the same person might sit on a RISA and CSC advisory committee or a NOAA staff member might sit on a regional CSC advisory committee. A Committee member suggested that summaries and/or talking points about the work of the NCCWSC and CSCs be produced for Joel Clement, the director of DOI's Office of Policy Analysis and DOI's representative to USGCRP, to ensure the USGCRP receives updates about this work, and can apply information being developed by the CSCs and NCCWSC to the climatescience.gov tool. Matt Larsen, ACCCNRS Co-Chair, is able to serve as a conduit between the Committee and Joel Clement.

Suggestions for Improving MOUs and Partnerships

There was lengthy discussion about the purpose of MOUs and suggestions for improving MOUs and partnerships, which included the following statements from Committee members:

- The role of MOUs should not be to direct field work, but rather to facilitate and coordinate field-level activities.
- MOUs and direct conversations between entities should be built around an identified issue, such as drought.
- MOUs should be focused on how information is translated and how relationships can be service oriented, rather than on data or training.
- Options to improve state-level MOUs, and MOUs between states and federal agencies were not generated as clearly as federal-level MOUs, which is something the Role WG could consider as a next step.
- The Role WG could consider whether or not guidance could be provided to field-level climate service entities to better interact with federal-level entities.
- A Committee member did not agree that the five components of climate services that the Role WG identified were all climate services. CSCs provide climate service but also conduct work that is not a climate service, and largely due to this, there is a need to be clear about what climate services include. Identifying core products for CSCs would help with this.
- If each field-level entity conducts its own downscaling, climate services will be so duplicative that they will no longer be of service.
- NCCWSC and the CSCs could peer review State Wildlife Action Plans (SWAPs) and could help train states on identifying what is and is not working within the plans.
- ACCCNRS member, Paul Wagner, is on detail to the Council on Environmental Quality (CEQ) for the next nine months and will be staffing the State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience. This provides the opportunity for Paul to serve as a liaison between ACCCNRS and the Task Force.

Inventory of the Climate Science Service Landscape

Committee members provided the following feedback on the inventory:

- The climate science service landscape inventory list is overwhelming.
- The inventory could serve as a starting point for a Venn diagram, which could help the Committee understand how the work of different climate science service entities can complement each other without being duplicative. RISAs and CSCs have jointly developed a similar type of Venn diagram to convey how they perceive their relationship to each other, and LCCs have created a table with their regional goals. The Role WG could use these examples to help highlight already identified gaps.
- Include risk management assessments completed by businesses in the climate service inventory.

It was also suggested that CSCs and their partners review the National Climate Assessment (NCA) regional reports and develop a collaborative statement about how to address identified gaps. However, Robin O'Malley stated that the CSCs have already reviewed NCA chapters. Another Committee member cautioned against focusing too much on analysis of the climate science service landscape and not enough on listening to stakeholder needs.

Updates from the Work Group Breakout Session

The Role WG identified the following five strategies that the WG will further develop and propose to the Committee at a future date:

1. Develop coordinated communications plans to better communicate the roles of the various entities within the climate science service landscape.
2. Actualize coordination between like-regional organizations (e.g. CSCs, LCCs, RISAs) through meetings, which could also allow for opportunity to share RFP funding selection processes and timelines to reduce duplication.
3. Reword the WG's initial proposed strategies to include non-federal agencies and clarify that CSCs can involve non-federal agencies (e.g. NGOs and states) in their work at a non-decision making level.
4. Encourage representatives from federal agencies to hold membership, to the extent practical, on more than one field-level advisory committee.
5. Establish a strategy for better stakeholder engagement within non-federal climate science service entities (e.g. Tribes, state, NGOs, academics, etc.).

Program Evaluation Work Group

WG Members: Berrien Moore, Bob Pietrowsky, Bruce Stein (Co-Lead), John O'Leary (Co-Lead), Natalie Dubois

The Program Evaluation WG proposed an outline of a program evaluation process for the CSCs and a draft logic model. The proposed framework includes five main components to be evaluated: Institutional Development; Science; Capacity Building; Partnerships; and Communications. The WG identified its work as contributing to sections 4b and 4d of the ACCCNRS charter.

Discussion

Expectations of CSCs and Core Products

There was lengthy discussion about whether core products should be identified for CSCs, or whether CSC products should be defined from the bottom up by stakeholder needs. Ultimately, it was noted that these are not mutually exclusive and that a combination of these approaches will be needed. Identifying core products will help clarify expectations, and communicate to Congress about the value of CSC work. For example, actionable science could

be a core product of CSCs. Defining products from the bottom up will ensure that CSCs meet the needs of resource managers, which is a core purpose of the enterprise. There is now a NCCWSC enterprise goal to have CSCs work at a national level and produce larger projects that address three regionally common topics: ecological drought; migratory birds, water fowl, and marine birds; and how to best utilize downscaled science in decision making.

A member reminded the Committee that the Secretarial Order that established the NCCWSC and the ACCCNRS charter directs the NCCWSC to focus on climate and fish and wildlife and their habitat, which is important to take into account when considering the core products of the NCCWSC and the Committee's role in evaluating it.

Program Evaluation Components

After discussion during the WG breakout session, the Program Evaluation WG decided to remove "Communications" as a separate category, and address it as part of the remaining four categories. Also, the WG added two components to the Institutional Development bin:

- 1) evaluation of the academic-USGS relationship, part of which will include assessment of whether or not the CSCs are taking advantage of the broad talent pool within universities; and
- 2) evaluation of the internal coordination among members of the CSC consortia, which is important considering the number of universities involved.

The WG also discussed stakeholder surveys and other methods to evaluate the utility and application of CSC services and products.

A NCCWSC staff member asked that the tools CSCs develop for decision making and management be evaluated under the "Science" bin. One Committee member suggested that the WG specify what type of capacity is being referred to under the Capacity Building bin (e.g. institutional capacity versus actionable science's contribution to the adaptive capacity of ecosystems). It was also suggested that a bin for "External Factors" be added to the logic model for evaluation of programmatic aspects such as funding, political leadership, and potential effects of natural disasters.

Program Evaluation Implementation

Committee members made the following suggestions for the Program Evaluation WG to consider regarding the implementation phase of program evaluation:

- The draft framework focuses on evaluation of the CSCs. Consider if a similar approach could be used to evaluate NCCWSC.
- A Committee member said it would be unfair to evaluate older CSCs by new criteria and different evaluation metrics could be used for the older and newer CSCs. In response, a Program Evaluation WG member said it may not be desirable to evaluate CSCs on shifting expectations and iteration of program evaluation may be a better approach for taking into account the difference between older and newer CSCs.

- Different skill sets are needed to evaluate the different components identified (i.e. science and institutional development).
- The WG should focus on what can be done to ensure that the NCCWSC/CSC enterprise is outstanding, which could include rewards for quality work. Program evaluation should focus on how to make strong performance and performers even stronger.
- The WG could consider how to evaluate CSC and NCCWSC leadership. It is critical that the very best capacity to act as managers and leaders and who can deliver service across the entire service area.
- USGS staff explained that some CSCs are almost due for their five-year review and asked that program evaluation process and tools be developed to coincide with this cycle.

Tribal and Indigenous Peoples Matters Work Group

WG members: Ann Marie Chischilly (Co-Lead), Bill Reeves, Gary Morishima (Co-Lead), Paul Wagner, Sue Wotkyns

The Tribal and Indigenous Peoples (TIP) Matters WG presented two working draft documents:

- Indigenous Peoples and Climate Change: A Primer; and
- Traditional Knowledges (TK) Guidelines

The first document provides foundational information on climate change and indigenous peoples to ACCCNRS. The second document was prepared by an informal working group comprised of two ACCCNRS Committee members and other experts, and offers best practices for using traditional knowledges (TKs) in climate change work, as well as a set of criteria for reviewing grant/project proposals involving TK. The WG invited the Committee to provide feedback for the WG to consider in finalizing both documents.

The TIP WG expressed that its main focus is on how to improve tribal engagement and participation in climate initiatives, which, as the WG described in the primer, has been inhibited largely due to funding challenges Tribes face. The WG also suggested that ACCCNRS coordinate with the new State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience. The TIP WG identified its work to-date as contributing to sections 4b and 4c of the ACCCNRS charter and intends for future work to contribute to section 4a.

Discussion

It was suggested that the TIP WG identify recommendations from the primer to propose to the Committee. A Committee member suggested the USDA and Forest Service will be able to use the information in the primer to better refine USDA's strategy for engaging Tribal and indigenous communities in the new USDA Hubs.

Recommendation to DOI to Convene Tribal Leaders with CSC and LCC Staff

The TIP WG recommended that DOI convene Tribal Leaders and staff working with CSCs and LCCs to identify strategies to improve tribal awareness of and participation in CSCs and LCCs. ACCCNRS agreed to endorse this recommendation, and the TIP WG will work with the ACCCNRS DFO to submit the recommendation to DOI and convene the meeting.

The TIP WG identified meetings of tribal consortia and the EPA's Tribal Environmental Management Program meetings as other opportunities to communicate about climate change with Tribal leaders. The TIP WG expressed that it hopes to work closely with the Role WG, which could prepare a diagram or matrix of federal and non-federal Tribal players within the climate science service landscape.

Recommendation to DOI to Convene Private Landowners

It was also suggested, and the Committee agreed to recommend, that DOI convene a meeting with private landowners and staff from CSCs, LCCs, and USDA Regional Climate Hubs to improve coordination and communication with private landowners.

Communication and Networks Work Group

Work Group Members: Adam Markham (Co-Lead), Amber Pairis, Jeff Peterson, Bill Reeves (Co-Lead)

This WG was not able to find a time when all its members were available for a call and so did not have products to share. In addition, this WG may require outputs from other WGs (e.g. the definition and guide from the Actionable Science WG, the Role WG's inventory of climate science services, and evaluation framework from the Program Evaluation WG) to complete its charge. Robin O'Malley asked the Committee for input on whether this WG should focus on 1) how to improve communication about what the CSCs are and what they do, 2) engaging social networks experts to develop recommendations to improve the efficiency and effectiveness of climate science networks, 3) providing advice on how to refine messages about the distinction between adaptation and mitigation, or 4) providing input on a communications plan for NCCWSC and CSCs.

Discussion

Networks and Partnerships between CSCs and Other Entities

While Committee members raised the issue of a lack of internal communication within DOI, there was lengthier discussion about how to improve communication networks and partnerships between CSCs and other entities. It was noted that the issue of networks between

CSCs and other entities ties into the “Partnerships” bin in the proposed program evaluation framework.

Communications and Outreach with Stakeholders

Another main topic of discussion was how to improve CSCs’ communications and outreach to stakeholders. The following statements were made by Committee members and NCCWSC staff:

- Many Tribal community members and others are deterred from discussing and addressing climate change because the terminology is difficult to understand. It would be helpful to create a glossary of key terms, as well as a directory of financial and technical resources available.
- Looking at who is on CSC stakeholder advisory committees will be a start to better understanding CSC communications.
- CSCs should be trained on climate change communication and information dissemination because climate changes needs to be presented in different ways to different decision makers.
- There needs to be a consistent brand for the network of CSCs on a national level instead of a brand for each CSC.
- The Communication/Networks WG or another subgroup of the Committee could explore the linkage between the DOI [Secretarial Order 3330](#), which is a driving force behind climate change mitigation policies/practices of other bureaus of DOI (e.g. National Park Service), and [Secretarial Order 3289](#), which established the CSCs.
- It may be useful for the Communication/Networks WG to request a presentation from the researchers involved in the RISA and the Pacific Island CSC co-funded social network analysis of how stakeholders are accessing climate change information and how stakeholders connect with each other.

Refining the Message of Adaptation versus Mitigation

A Committee member said that it seems odd for the Communication and Networks WG to be charged with refining messages about adaptation and mitigation. Another Committee member said that it would be useful for USGS to communicate about the difference between adaptation and mitigation and to what extent each is covered in the work of CSCs.

Southeast CSC Staff Presentations

Jerry McMahan, Federal Director, DOI Southeast CSC; Mitchell Eaton, Research Ecologist, Southeast CSC; Adam Terando, Research Ecologist, Southeast CSC

Southeast CSC (SE CSC) staff presented examples of the SE CSC’s decision-driven science approach of structured decision making (SDM) and on its use of climate projections for management support. Jerry McMahan explained that the SE CSC’s biggest challenge is not science, but is figuring out how to consider the complex stakeholder makeup as well as the

various biogeochemical factors within the landscape when producing regional, landscape-scaled science. Another challenge the SE CSC faces is the shortage of quality decision analysis scientists who can further develop the capacity for structured decision making. The SE CSC staffs' presentation slides can be found [here](#).

Southeast CSC Grand Opening at North Carolina State University

Congressman David Price joined Chancellor Randy Woodson, SE CSC staff, and North Carolina State University (NCSU) faculty, staff, and students at the ceremonial grand opening of the SE CSC. The ACCCNRS attended the grand opening to hear from keynote speakers about the SE CSC's work, as well as to learn about graduate student research being done at NCSU in partnership with the SE CSC.

2014 ACCCNRS Work Plan

Robin O'Malley provided an overview of NCCWSC's vision for the 2014 ACCCNRS work plan, which was followed by Committee discussion. Robin's presentation slides can be found [here](#), and his key points are below:

- ACCCNRS is expected to serve as a standing committee, and each member has been assigned either a two- or three-year term.
- Two more meetings are planned for 2014, one in May or June, likely in Washington DC, and a second in September or October, likely at a western CSC location. One goal for the May/June meeting is to review and finalize initial WG products. One goal of the fall meeting is to approve a package of recommendations to the Secretary, based on WG products.
- One of NCCWSC's most urgent needs is section 4a of the charter, for ACCCNRS to provide feedback on the NCCWSC program at a national level. Proposing a process for short-term feedback on NCCWSC could be the Program Evaluation WG's next task.
- As the Committee discusses possible core products of CSCs, members should consider what types of products these might be (e.g. assessments, syntheses, scenarios, etc.) as well as what topics should be priority.
- NCCWSC would like substantial feedback from the Role WG about how USGS, which traditionally is not a social science agency, plays a role in issues such as energy development and mitigation.
- NCCWSC would like feedback on how to ensure quality monitoring is being conducted considering NCCWSC does not have the capacity to conduct monitoring itself.
- It would be helpful receive feedback from ACCCNRS on how NCCWSC can best reach non-federal stakeholders and partners such as states, NGOs, and producer communities.

Discussion

Multiple Committee members stated that developing an overarching national strategy for the NCCWSC/CSC enterprise is critical and will help to improve and make certain CSC activities more consistent (e.g. CSC outreach and communication to stakeholders).

There was discussion among the Committee that if core products are identified for CSCs, they should be identified as services instead of, or in combination with, science products. Some Committee members identified building more science capacity and actionable science services as a key priority. It was also suggested that adaptation be emphasized as a unique CSC service. A NCCWSC staff member expressed that conversations within the CSC consortia should be focused on synthesis of existing research rather than on producing new research, which is the focus of a lot of conversation already being had within other entities. Another point made by a Committee member was that as the overarching strategy is discussed, the Committee should consider a business component in terms of new resources and infrastructure being developed (e.g. USDA Hubs) to deal with newer problems.

USGS Vision for NCCWSC and the CSCs

USGS staff was asked to explain its vision for the NCCWSC/CSC enterprise, especially regarding the national and regional strategic plans and possible core products, in order to provide the Committee and WGs with a foundation for their discussions and work outputs. It was explained that NCCWSC and the CSCs are currently largely operated based on: 1) the report published in 2009 by the Ecological Society of America, the Wildlife Society, and Meridian Institute, [USGS NCCWSC: Final Report on Outreach and Recommendations](#), which was developed through a bottom-up process; and 2) and the NCCWSC staffing plan, which was developed on a much faster growth projection than what Congress has allowed for fiscally. The staffing plan will need to be revisited based on budget expectations. NCCWSC is now learning how to integrate the eight regional CSCs and produce multi-scale projects. It was clarified that the three previously mentioned national priorities were identified by NCCWSC with the intent of a more synthesis- and inter-practice-based scope as well as with a national rather than regional target audience.

Discussion

USGS staff will produce a draft NCCWSC strategic plan that includes science and organizational components for discussion purposes to address the role ACCCNRS is intended to employ for DOI. The Committee will provide feedback on the draft strategic plan, and it was suggested that the draft include place holders for WG outputs. A Committee member suggested that the strategic plan will need to include a training and capacity component. The point was raised that the development of a draft strategic plan does not necessarily meet the ACCCNRS charter and a Science Subcommittee may still be needed to specifically address the science within the NCCWSC Science Agenda and strategic plan.

Public Comment

Dr. McMahon (Federal Director, DOI Southeast CSC) said that what is difficult about the NCCWSC/CSC enterprise is figuring out what its niche is, particularly regarding how to work at the landscape scale in a way that will resonate with people. It would be helpful to the SE CSC to have a conversation with ACCCNRS about how to make the enterprise unique. Dr. McMahon said perhaps the SE CSC could draft its understanding of what its niche is and collect feedback from the Committee. Dr. McMahon also said the Program Evaluation WG's program evaluation pathway is spot on, but it only going to be effective if the enterprise's niche is well defined. Dr. McMahon thinks the niche relates to both research and management oriented efforts that is on a different scale than what ordinary principal investigators and requires identification of various values within the region; Dr. McMahon said this is difficult but is something the enterprise needs to be able to do well in the near and long term.

Closing Remarks

David Behar expressed appreciation for the work, ambition, and synergy of the ACCCNRS members as well as for the USGS, NCCWSC, and SE CSC staff for hearing the Committee's views. Matt Larsen agreed with David and said he believes ACCCNRS is developing a great path to useful and meaningful outcomes for the NCCWSC/CSC enterprise which has a tight budget but high expectations. Matt also said that the documents the Committee submits to the DOI Secretary will need to be bold and brief. Finally, Matt said the Committee learned a lot from the SE CSC and that the co-chairs, NCCWSC, and Meridian Institute will work to engage other CSC directors and staff.

Appendix A

Attendee List

January 22-23, 2014, ACCCNRS Meeting

Committee Members

Jeffrey Arnold, Senior Climate Scientist, U.S. Army Corps of Engineers, Alternate

David Behar, Co-chair, Climate Program Director, San Francisco Public Utilities Commission/Water Utility Climate Alliance

Paul Beier, President, Society for Conservation Biology, Member

Ed Carter, Director, Tennessee Wildlife Resources Agency, Member

Ann Marie Chischilly***, Executive Director, Institute for Tribal Environmental Professionals (ITEP), Northern Arizona University, Member

David Cleaves, Climate Change Advisor to the Chief, US Forest Service, U.S. Department of Agriculture, Alternate

Natalie Dubois, Defenders of Wildlife, Alternate

Clifford Duke, Director of Science Programs, Ecological Society of America, Member

Herbert C. Frost***, Associate Director, Natural Resource Stewardship and Science, U.S. National Park Service, Member

Kimberly Hall, Great Lakes Climate Change Ecologist, The Nature Conservancy, Member

Lara Hansen**, Founder, Chief Scientist, and Executive Director, EcoAdapt, Member

Lynn Helbrecht*, Climate Change Coordinator, Western Association of Fish and Wildlife Agencies, Member

Larry Irwin, NCASI Fellow, National Council for Air and Stream Improvement, Inc., Member

Matthew Larsen, Co-chair, Associate Director Climate and Land Use Change, U.S. Geological Survey

Adam Markham*, Director, Climate Impacts Initiative, Union of Concerned Scientists, Pending Alternate

Noah Matson, Vice President for Climate Change and Natural Resources Adaptation, Defenders of Wildlife, Member

Richard Merrick*, Chief Science Advisor, National Oceanic and Atmospheric Administration, Fisheries, Member

Berrien Moore*, Vice President, Weather and Climate and Director, National Weather Center, University of Oklahoma, Member

Gary Morishima, Technical Advisor to the Chairman, Quinault Nation, Member

John O'Leary, State Wildlife Action Plan Coordinator, State of Massachusetts and the Northeast Association of Fish and Wildlife Agencies, Member

Adam Parris, RISA Program Manager, National Oceanic and Atmospheric Administration, Alternate

David Patte, Senior Advisor, Pacific region, U.S. Fish and Wildlife Service, Alternate

Jeffrey Peterson, Senior Advisor, Office of Water, U.S. Environmental Protection Agency, Member

Robert Pietrowsky, Director, U.S. Army Corps of Engineers, Member

Bill Reeves, Chief of Biodiversity, Tennessee Wildlife Resources Agency, Pending Alternate

Sarah Ryker, Deputy Associate Director, U.S. Geological Survey, Alternate

Bruce Stein, Director, Climate Change Adaptation, National Wildlife Federation, Member

John (Jack) Sullivan, Director, Science Services, Wisconsin Department of Natural Resources and the Midwest Association of Fish and Wildlife Agencies, Member

Leigh Welling, Director Climate Change Program, U.S. National Park Service, Alternate

Jeffrey Williams, Manager, Climate Consulting, Entergy, Inc., Member

*participated via WebEx/conference line

**participated via WebEx/conference line Day 1 and in person Day 2

***participated Day 2 only

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