

External Program Review of the Climate Science Centers

BACKGROUND: Each Climate Science Center (CSC) is hosted by a university located in their respective region and is generally supported by a consortium of other institutions (universities, Tribal colleges, Federal research labs etc.). Prudent fiscal and program management of the Climate Science Center (CSC) enterprise requires periodic review and evaluation of the host universities' scientific activities and execution of administrative obligations under their hosting agreements, as well as identification of areas in need of improvement or adjustment for subsequent agreements. As such, the National Climate Change and Wildlife Science Center (NCCWSC), managing entity for the CSC network, is coordinating an operational and scientific/programmatic review of all CSC host universities' performance under their hosting agreements. Each CSC will be reviewed in advance of re-competition of the Hosting Agreement for that region (see Issue Brief #2).

THE PURPOSE OF THE CSC REVIEW IS TO:

- evaluate the effectiveness of each CSC in meeting goals of the Department of the Interior (DOI) and USGS,
- assess the level of scientific contribution and achievement at each CSC with respect to climate modeling, climate change impacts assessments, vulnerability and adaptation of fish, wildlife and their habitats, and collaborative development of adaptation strategies for regional stakeholders,
- evaluate the competencies and efficiencies of each host university in managing the administrative and program requirements of the CSCs, and
- aid the NCCWSC in developing improved requirements for recompetition of the next university hosting agreements, to be conducted in 2016.

PROCESS:

- The review of the CSC host universities is being led by the American Fisheries Society (AFS) and the Human Dimensions Research Unit of Cornell University (Cornell). NCCWSC staff are also participating to evaluate the operational components of the agreements including staffing mix strengths, student involvement and research activities, and space and resource allocations.
- AFS and Cornell established Science Review Teams (SRTs) to review the scientific activities of the host universities for the first 3 CSCs, which were reviewed in early 2016.
- AFS and Cornell will develop Review Reports summarizing the evaluation findings. These reports will be used to inform the recompetition of CSC hosting agreements (see Issue Brief #2).
- Cornell will also conduct a survey of *science users* and *science providers* in each region to identify patterns of engagement with the CSC and barriers to such engagement.

SCHEDULE: The CSC hosts are being reviewed in a schedule aligned with the expiration and subsequent recompetition of the hosting agreement awards (see Issue Brief #2).

- The first 3 CSC reviews were conducted in early 2016:
 - Oregon State University, Northwest Climate Science Center - January 20-22, 2016
 - University of Alaska, Fairbanks, Alaska Climate Science Center - February 10-12, 2016
 - North Carolina State University, Southeast Climate Science Center - February 24-26, 2016
- The next CSC review is tentatively planned for late Fall 2016 (possibly November), with the fifth planned for early 2017.
- Reports from the evaluations will be made public upon completion.

INITIAL OUTCOMES: The table below summarizes initial findings of the Science Review Teams convened for the Northwest, Alaska, and Southeast CSC reviews. Specific examples will be provided at the April ACCNRS meeting concerning incorporation of these recommendations into the funding opportunity announcement for the recompetition of the CSC host agreements.

Issue	Background	Recommendation
Establishment of a joint statement of shared values, goals, and objectives	Although there were examples of CSC-University and CSC-Federal sharing a common understanding of the CSC mission, purpose and their role in attaining that end point, it was uneven and led to misunderstandings and lost opportunities for collaboration.	Develop a statement of values and expectations to act as a fundamental common core for CSC partners. A modification of the CESU agreements may be a useful initial approach.
Placement of the CSC in Host University Institutional Structure	The nature of the CSCs has evolved from the first round of host searches where downscale climate modeling was a priority, suggesting that the academic focus of the host department would not be as critical as the track record of the host-PI and department in establishing dynamic and effective inter-departmental and inter-disciplinary partnerships.	Placement of the CSC in the academic hosting department or institution that best addresses the joint statement identifies interdepartmental activities that effectively engage across disciplines, including committee membership, co-authorship of research proposals, seminars, fellowships, and other activities.
Engagement of the CSC-University and CSC-Federal Staff	The SRT recognizes that there may be USGS rules or limitations that prevent CSC-federal staff from holding university appointments.	Engage USGS staff in academic activities such as graduate committees. NCCWSC should explore authorization for CSC-Federal staff to obtain adjunct status.
The provision of a complete annual reports that address all financial components of the CSC-university agreement	In general, annual reporting by both the CSC-Federal and CSC-University was insufficient to fully understand the research funding activities. Annual reports were written in a communications style directed more towards an audience of CSC science users (e.g., resource managers).	CSC partners should develop in depth reports that allow the SRT to track and understand research expenditures, matching funds, and overall allocation of research dollars between competing interests.
Provide research support and associated activities throughout the representative geography of the operational area	The host-university composition had a discernable impact upon the ability of the CSC to effectively address the breadth of issues reflective of its geography. As is understood and expected, a land-grant university has a tendency to show a bias towards issues within the boundaries of its home state.	The CSC-University must build new capacity through collaborations to address sufficient geographic coverage.
Participation of the CSC-University and Partner Institutions with the Stakeholder	The role of the SAC, or related bodies (e.g., ACCER), with the CSC-University and Partner Institutions was never clear. It was repeatedly recognized that the Host	CSC-University and Partner Institutions need to be involved in appropriate SAC meetings and discussions to encourage full engagement and support of the

<p>Advisory Committee</p>	<p>University and Partner Institutions have unique and highly valuable perspectives that were frequently absent from SAC discussions due to perceived conflicts of interests.</p>	<p>philosophy of co-production components of actionable science. Terms of Reference could be clarified to explicitly state SAC discussions where consortium would be invited to make recommendations on specific research projects.</p>
<p>Communication</p>	<p>The need for effective communications expertise within the CSCs was recognized. In particular, the vastly different capacities and approaches among the CSCs were evident and led to inequity in output, uneven understanding of audiences, and materials sometimes crafted with little sense of either purpose or effectiveness.</p>	<p>Potential CSC-Universities should be directed to provide specific proposals that describe how university communications will be utilized by the CSC, along with anticipated deliverables, and a process to formally evaluate the effectiveness of the communications tools.</p>