



SOUTH CENTRAL CASC RESPONSE TO EXTERNAL REVIEW

This itemized response highlights how the review by the External Review Team (ERT; April 2024) influenced the proposed Host Agreement for 2025-2030.

Administrative Management – Overall, the ERT determined that the administrative requirements of the prior Host Agreement (FY2018–2022) were managed “very well” by the University of Oklahoma and the Consortium. In particular, the ERT noted our ability to leverage the small amount of USGS base funding support through the Host Agreement with substantial funding from other sources (e.g., National Science Foundation (NSF), the Bureau of Indian Affairs) and spur investment from Consortium members, including the Tribes. In fact, on September 1, 2024, three Consortium members (OU, UNM, and Chickasaw Nation) were awarded a four-year, \$4 million grant from NSF to enhance Indigenous community resilience to climate change impacts through partnerships and co-development of adaptation planning (NSF award #2418311 for OU/CN, PI Martin; NSF award #2418312 for UNM, PI Tsinnajinnie). The ERT also noted OU’s leadership (funded without any Federal monies) in working with Congress on both increased appropriations and NRCASC authorization. These efforts on leveraging and Congressional education will continue without any funds from the USGS Host Agreement.

As a result of these prior successes, we propose to continue administrative operations with few changes, maintaining continuity to build future success. Continuation of operations includes the following: (1) shared office space (OU, USGS, and Chickasaw Nation) at OU (see letter of commitment from Interim VPR Silva); (2) funding financial administration and main office management primarily through OU institutional commitment (see letter of commitment from Interim VPR Silva); (3) continuing collaborations with pre- and post-award services at OU and Consortium members; (4) regular meetings with USGS regional leadership and Consortium leadership; and (5) institutionalized processes for streamlining administrative management.

Differences from the prior management structure include: (1) adding a University Associate Director, (2) developing our network analysis, (3) reducing university-federal pay disparities, (4) adding Consortium-wide education on emphasizing the nature of actionable science in external communications, and (5) enhancing the role of social sciences in the Host Agreement. The addition of the new position of University Associate Director is intentional for growing research collaborations across our larger Consortium and for succession planning (i.e., PI McPherson is eligible to retire within the grant period). The ERT saw our network analysis tool in our review; however, a month later, the software company (Exaptive in Oklahoma City, OK) shut down because they lost their largest contract and we will identify and implement a replacement tool. To reduce pay disparities between university and federal employees, we propose to examine the pay ranges of OU’s Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO), a NOAA cooperative institute, which struggled with similar issues until they invested financially into a thorough analysis and developed a crosswalk between university and federal jobs with aligned pay ranges. To emphasize actionable science in formal and informal communications by Consortium members, we will pilot virtual technical assistance sessions — *office hours* — to aid researchers, partners, and users with climate adaptation science knowledge. Social sciences will play a larger role in the Host Agreement through program evaluation (e.g., development of metrics), Indigenous scholarship, climate education research, and climate adaptation research.



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In response to continued concern about administrative burden, particularly with changes in and centralization of research financial services at OU, the Host leadership spent considerable time working directly with post-award services to ensure that budget justifications offered the flexibility needed to focus on completing necessary work flexibly, with changing needs of external partners over the 5-year award period. These discussions and resulting language used in the proposal budget justification are intended to ensure that the PI has flexibility as priorities of partners change.

Outreach & Communications – The ERT expressed their praise for our excellent outreach and communication efforts associated with our *Tribal Engagement Program* and noted how these efforts were a strength of the South Central CASC. In particular, they noted how our communication products related to working with Tribes, such as the *Shifting Landscapes* guidance, are broadly applicable across the larger CASC network and that our team “should be recognized for this major contribution.” Similarly, the ERT noted that the Communities of Practice model, established in 2020, is a solid foundation that has resulted in knowledge exchange and collaborative research. The ERT also noted that more attention is needed to effectively communicate the general, CASC-wide story and specific climate adaptation science successes to external partners and others who may benefit.

Given the praise for our Tribal outreach and communication and our Communities of Practice, we propose minimal change to our existing efforts but will continue to build upon recent endeavors. For example, CASC Indigenous scholars will (1) work to further infuse Indigenous knowledge into our CASC communications and work culture and (2) distribute clearer information about our materials and services for Tribes/Pueblos. Additionally, we propose to update our Communities of Practice into *Research-to-Management Dialogues* that will serve as a forum for researchers and resource managers to build long-term partnerships, share relevant knowledge around a climate-related management challenge, and engage a variety of voices in exploring climate adaptation solutions.

Changes to our outreach and communications efforts include: (1) conducting an evaluation of our communications processes and products (with guidance from a new Program Evaluator); (2) updating and sharing our *Style Guide* and *Communications Plan*; and (3) regularly hosting *Local Awareness Events*. We will use information gathered from our evaluation efforts to continue strengthening our efforts to communicate the story of the South Central CASC and its impacts to a broader audience. Activities proposed as part of our *Actionable Research Program* will benefit from an updated *Style Guide* and *Communications Plan*, ensuring consistency across products and providing guidance to all CASC-funded researchers on how to demonstrate actionable climate adaptation science through our materials. Consortium members also will showcase CASC research through *Local Awareness Events* (e.g., event tabling, informal presentations, learning workshops, listening sessions, etc.)

Scientific Achievements – The ERT struggled to find long-term development and implementation of actionable science funded solely through the prior Host Agreement. They acknowledged that the Host Agreement necessarily focuses on broad-scale management of the work of the Consortium, including partnership development, financial oversight, building research capacity, and communicating science to natural and cultural



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resource managers. Activities such as authoring a regional chapter of the National Climate Assessment and establishing collaborations through Communities of Practice were examples of longer-term scientific achievements that the ERT highlighted as successful and needed.

As a result, our proposed research efforts discontinue the prior decade of support for PI-specific graduate students, though not without concern expressed by PIs. Instead, we focus on fully supporting one postdoc at a subset of our Consortium institutions (LSU, TTU, OSU, and UNM) to conduct actionable science on the Host Agreement. Individuals selected for these positions will conduct climate adaptation research aligned with the USGS South Central CASC Science Agenda and driven by the needs of our local and regional partners. Potential research areas for each postdoc are detailed in *Section 2a* of the proposal. Technical assistance sessions for CASC-funded researchers, led by our Climate Adaptation Specialists, also will help to ensure the emphasis of both the adaptation and actionability components throughout all phases of our research projects, from initial idea generation to the development of any products.

In addition to our postdocs, we will provide partial support for full-time CASC research staff to conduct novel research related to adaptation, Indigenous scholarship, downscaling, and climate education. These four topic areas were selected to help address several of the Management Challenges included in the updated USGS South Central CASC Science Agenda. Lastly, we will conduct an evaluation of our proposed *Actionable Research Program* to better understand the impact of our research efforts and continue to improve our ability to address the climate adaptation needs of our partners.

Collaborative Efforts – Overall, the ERT found that the collaborative efforts developed and enhanced by the Consortium team were “impressive” and fully supported the goals of the South Central CASC. In particular, the ERT noted the “Tribal Engagement Program to be a standout project within the Consortium that not only is an example of how to do engagement within the [South Central] CASC but also can be used as a model for other CASCs and climate boundary organizations and research groups.” In fact, our *Tribal Engagement Program* was the impetus for the development of the Tribal Liaison network led by the Tribal Community Resilience program of the Bureau of Indian Affairs. In addition, our “network of networks” model, extending our reach through existing collaborations of Consortium members with their partners, was a strength.

Building on these prior successes, we will (1) continue to invest mindfully in our *Tribal Engagement Program*, (2) develop more *Ideation Events* that bridge together USGS and Consortium networks, (3) continue supporting our key partners across the region through our proposed *Research-to-Management Dialogues*, and (4) strongly support the development and implementation of the second South Central Climate Resilience Forum. We will strengthen our existing partnerships with Tribes, federal and state agencies, and other organizations through regular dialogues focused on climate-related management challenges (see Outreach & Communications above) and will invite both researchers and resource managers to *Ideation Events* to spur new collaborative ideas and research projects. Given the great success of the inaugural South Central Climate Resilience Forum, co-hosted with several of our partner agencies and organizations, we will again support the development and implementation of future forums.



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Changes to our collaborative efforts include: (1) taking lessons learned from our *Tribal Engagement Program* and piloting Climate Adaptation Specialists (through USGS annual science funding) to institutionalize an *Actionable Research Program* to enhance collaborations with partners beyond Tribes and Indigenous communities; (2) developing and implementing an evaluation of several of our proposed CASC programs and activities; and (3) rebrand our Affiliate Program as the Climate Adaptation Ambassadors Program. We will take lessons learned from the prior evaluation of the Tribal Engagement Program to broaden the evaluation of actionable science outcomes and to infuse deliberate and consistent evaluation over time for the purpose of advancing our successes and terminating ineffective activities. After piloting two Climate Adaptation Specialist positions during the past few years, we will create an Actionable Research Program formally under the Host Agreement, detailed in Section 2a of the proposal. Our proposed Climate Adaptation Ambassadors program will be a more structured version of our Affiliate Program designed to engage both researchers and resource managers across the region whose activities contribute to the CASC mission.

Capacity Building – Overall, the ERT found that “the capacity building projects in the Consortium are among the most successful of their projects, being both innovative, effective, and reaching a large number of people.” Programs and activities ranged in audience, topic, instructional method, and engagement duration, serving a diverse set of needs articulated by our management partners. We are fortunate to have grown our internal expertise in climate and climate adaptation education. As a result, ERT concerns about the sustainability of our capacity-building approach are reduced substantially by virtue of internal redundancy.

The primary gap noted by the ERT was a lack of holistic and overarching metrics that could be applied to evaluate our efforts over time. As noted by the ERT, capacity-building and evaluation were blended into our *Tribal Engagement Program* in the prior Host Agreement. For this proposal, we have capacity-building efforts blended into both the proposed *Actionable Research Program* and our evaluation of actionable science. We also will continue our successful types of activities in the next Host Agreement, aligning them once again with the changing needs of our partners across the region. These activities include (1) providing student mentoring, (2) offering our Managing for a Changing Climate course, and (3) hosting (or supporting) climate change-relevant workshops.

Significant changes to our capacity-building efforts include: (1) the revitalization of an *Undergraduate Research Scholars* program from our initial host agreement; (2) the establishment of a *Research Scholars* program; and (3) the institutionalization of our *Early Career Research Forum*. Our proposed *Undergraduate Research Scholars* program is a revised version of our previously successful Summer Field Experience from our first Host Agreement. Students selected to participate in our proposed program will engage in hands-on field experiences to gather data on climate impacts, adaptation research needs, and current management strategies across the region. Our *Research Scholars* program will be a competitive program intended to provide supplemental support and professional development opportunities for eight graduate students annually associated with one of our Consortium members. Postdocs supported by the Host Agreement also will participate and, in their second year, they will be expected to help develop and deliver content for this program. The South Central CASC *Early Career Research Forum* has been previously supported through other mechanisms, but we intend to formalize this forum as a regular occurrence through the new Host Agreement and continue building upon our successful past forums.