

FUNDING OPPORTUNITY – FISCAL YEAR 2022

Climate Adaptation Science Centers

U.S. Geological Survey
U.S. Department of the Interior

In This Document:

Funding Opportunity Details & Schedule	2
Application Process & Evaluation Criteria	5
Science Priorities & Details for Regional CASCs	11
Alaska CASC	12
Midwest CASC.....	16
North Central CASC.....	20
Northeast CASC	25
Northwest CASC	30
Pacific Islands CASC	36
South Central CASC.....	42
Southeast CASC	46
Southwest CASC	51
List of Appendices.....	58
APPENDIX A: Access to RFPManager.....	59
APPENDIX B: Format and Guidelines for Statements of Interest.....	60
APPENDIX C: Format and Guidelines for Invited Proposals	62
1. PROPOSAL BODY.....	62
2. BUDGET FORM	66
3. DATA MANAGEMENT PLAN.....	67
APPENDIX D: Guidelines for Plain Language Public Summaries.....	68
APPENDIX E: Budget Justification Worksheet	69
APPENDIX F: CASC Science Approach.....	82
APPENDIX G: Required Reporting for Funded Projects.....	83

Funding Opportunity Details & Schedule

This solicitation invites Statements of Interest (SOIs) for projects to be initiated in **Federal Fiscal Year (FY) 2022** for the **Alaska, Midwest, North Central, Northeast, Northwest, Pacific Islands, South Central, Southeast, and Southwest regional Climate Adaptation Science Centers (CASCs)**. Solicited projects should address high-priority natural or cultural resource management issues that can benefit from climate-informed planning and adaptation management. Specific science priorities and needs for each CASC can be found later in this document.

Additional information about the Climate Adaptation Science Centers can be found at: <https://www.usgs.gov/casc>

Eligible Applicants

Each proposal must have a **Principal Investigator (PI) from an eligible organization**. These include:

- **USGS Science Centers and other USGS entities** (field stations, laboratories, Cooperative Research Units, etc.), or
- **Regional CASC Consortium Organizations** - specific lists of consortium members and eligibility for each CASC can be found in the [Science Priorities & Details for Regional CASCs section](#).

For additional eligibility information for the Midwest CASC, please refer to the [Midwest CASC section](#) later in this document.

Parties from other organizations (federal, state, tribal, non-governmental, and other) may participate in CASC-funded projects and receive funds via subawards, contracts, or interagency agreements through an eligible organization, as described above. Non-eligible parties are encouraged to establish working partnerships with a Principal Investigator from a region-specific CASC consortium organization or USGS facility.

Submission Deadlines and General Schedule	Dates
Deadline for Statements of Interest	Friday, March 19, 2021, 5:00 PM EASTERN Daylight Time
Full Proposals Invited (Planned)	April 22, 2021
Deadline for Invited Full Proposals	Friday, July 23, 2021, 5:00 PM EASTERN Daylight Time
Notification of Intent to Award* (Planned)	September 8, 2021

Project Start

- **USGS-led Projects:** Changes of Allocation should be expected no sooner than 30 days after passage of a full-year federal fiscal year 2022 budget.
- **Consortium-led Projects:** Grants or cooperative agreements should be expected no sooner than spring or summer 2022. Delays may occur due to Congressional budget action and/or internal agency legal and administrative review processes.

Funding Process

Project funds will be transferred from a regional CASC to either:

- **A USGS entity** (e.g., science center, laboratory, field station, Cooperative Research Unit, etc.) via the USGS Change of Allocation (COA) process, or
- **A CASC host university** via a grant or cooperative agreement. Each regional CASC is comprised of a consortium of partner organizations, centered at a host university. All funding from a regional CASC that is not going to a USGS or other federal government entity must flow through the CASC's host university. USGS entities and CASC host universities may then provide subawards and/or contracts to regional CASC consortium members and other organizations.

Applicants from regional CASC consortium organizations other than the host university must include in their project budget any required "pass-through" indirect costs. See [Science Priorities & Details for Regional CASCs](#) for specific pass-through cost information for each CASC.

For additional funding information for the Midwest CASC, please refer to the [Midwest CASC section](#) later in this document.

Informational Webinar

The CASC Network will host an informational webinar and question and answer session pertaining to this solicitation. This webinar will be recorded and made available for online viewing.

Webinar Date and Time: Tuesday, February 16, 2021, 2:00 PM EASTERN STANDARD TIME

At the time of the webinar, join the Zoom Meeting:

<https://us02web.zoom.us/j/81837367276?pwd=UHVWVSRpK0N4bExPTS8rbERqZkRyZz09>

Meeting ID: 818 3736 7276

Passcode: CASCRFP

Dial by your location

- +1 669 900 6833 US (San Jose)
- +1 253 215 8782 US (Tacoma)
- +1 346 248 7799 US (Houston)
- +1 929 205 6099 US (New York)
- +1 301 715 8592 US (Washington DC)
- +1 312 626 6799 US (Chicago)

Meeting ID: 818 3736 7276

Passcode: 2704929

To access a recording of the network webinar after February 16, please contact casc@usgs.gov. Interested applicants can also see the CASC Funding Opportunity **FAQ**. This page will also be updated with any questions/answers from the network webinar:

<https://www.usgs.gov/ecosystems/climate-adaptation-science-centers/casc-funding-opportunity-faq>

Regional CASC Specifics

Regional CASC-specific details for the following topics can be found in the [Science Priorities & Details for Regional CASCs section](#):

- Eligibility Requirements
- Estimated Available Funds*
- Project Funding Amounts and Duration
- CASC Contacts
- **Priority Science Topics**

*Funding Note

“Intent to Award” means the CASC has selected the project for funding, pending completion of all administrative reviews and processing to complete formal awards. Final funding actions will not occur until Congressional action is taken to put a full-year federal fiscal year 2022 budget in place (either with appropriation bills or a year-long continuing resolution) and all Department of the Interior processes are completed. **Delays in Congressional budget action may impact timing of receipt of funds.**

Application Process & Evaluation Criteria

Statements of Interest

- 1. Submission of Statements of Interest.** All parties interested in applying to this Funding Opportunity must first submit a Statement of Interest (SOI) via the online CASC proposal management system, RFPManager ([Appendix A](#)) using the SOI template in [Appendix B](#). Failure to follow these guidelines will result in an SOI being removed from consideration. The applicant will receive a confirmation email once the SOI has been successfully submitted to RFPManager. **SOIs must be successfully submitted to RFPManager by Friday, March 19, 2021, at 5:00 PM EASTERN Daylight Time.**
- 2. Evaluation of Statements of Interest.** Statements of Interest will be reviewed using the following evaluation criteria and weights. Applicants may be contacted to provide additional or clarifying information. Past performance on USGS-funded projects, if applicable, will also be considered during the SOI review. Individuals or institutions with problems in timely or effective completion of projects may be eliminated from further consideration until the issues are addressed to the satisfaction of the CASC.
 - Weight: 35% Applicability to one or more high priority science needs identified by the relevant CASC:** The proposed project should directly address an identified regional CASC science priority ([See Science Priorities & Details for Regional CASCs section](#) for details). The proposed project should inform high priority land, water, fish and wildlife, or cultural heritage resource management issues that can benefit from climate-informed planning and adaptation management, as identified by regional management partners, including Federal, State, or Tribal resource management organizations. The SOI should articulate how the project is connected to a resource management concern, the relevancy of the project results to land, fish, wildlife, habitat, or cultural heritage management issues, and how the project will add value to decision-making. Statements of Interest should also explain how the work would use or advance climate-related science. Projects are encouraged that address the needs of multiple partners, are relevant across a broad geographic scope, and/or are generalizable to natural resource decision-making and planning processes.
 - Weight: 35% Coordination with partners and engagement of stakeholders for creation of actionable science:** Partners and intended end users of the scientific output of the project (e.g., stakeholders) should be appropriately and proactively engaged in the proposed work to create actionable, usable science. The SOI should include an engagement/outreach component that identifies who, how, and to what level partners and stakeholders will be engaged throughout the project to ensure the results are useful and usable. Preference will be given to investigator teams with either a strong history of partner and stakeholder engagement or a clearly articulated plan for, and interest in, developing and maintaining these relationships.
 - Weight: 25% Scientific merit and quality of the research:** The project objectives described in the SOI should be robust and clearly defined. The SOI should demonstrate sound scientific methodology, study design, and data management.
 - Weight: 5% CASC-specific criterion:** Each Regional CASC may include an additional criterion or assign this extra weight to one of the criteria above. See the [Science Priorities & Details for Regional CASCs section](#) for details.

Full Proposals

- 3. Request for and Submission of Full Proposals.** After the SOI review stage, selected applicants will be invited by the CASC to develop full proposals (including a budget and Data Management Plan). **Full proposals will not be accepted from investigators other than those invited as part of this process.** Applicants whose SOIs have not been accepted to move forward, will also be notified. Proposal format information can be found in [Appendix C](#). Full invited proposals must be submitted via the online CASC proposal management system, RFPManager ([Appendix A](#)). The applicant will receive a confirmation email once the proposal has been successfully submitted. Failure to follow the guidelines may result in a proposal being removed from consideration. **Proposals must be successfully submitted to RFPManager by Friday, July 23, 2021, 5:00 PM EASTERN Daylight Time.**

All non-USGS Investigators should work with their respective organization's sponsored research support staff and consortium university host to ensure 1) appropriate budget detail, formatting, overhead/indirect rate calculations, etc. for submission to RFPManager, and 2) that budgets include any necessary pass-through costs from host universities. See [Science Priorities & Details for Regional CASCs section](#) for specifics for each host university.

The CASC Federal Director reserves the right to contact applicants for clarification of technical elements of a proposal at any point in this process. Neither an invitation to submit a proposal, nor a contact from the CASC concerning proposal details implies the project will be funded.

- 4. Evaluation of Full Proposals.** Project proposals will be reviewed and selected as follows:
- Submissions will be screened by the relevant CASC upon receipt for eligibility and for conformance to the announcement provisions.
 - Screened proposals will be reviewed against the evaluation criteria by a review team selected by the CASC Federal Director. Generally, reviewers are scientists and resource managers with relevant subject matter or technical expertise, as well as CASC-network staff. Reviewers will follow standard conflict of interest approaches and will be excused from ranking proposals with which they are associated. Confidential information will be restricted to reviewers, and they will be bound by confidentiality agreements. The constituent members of the review team will be held anonymous.
 - Reviewer rankings and comments will be provided to the CASC Federal Director. The CASC Federal Director will develop a final list of candidate projects based on the reviewer rankings and overall quality of the proposed science, and modify this list as appropriate to ensure an overall portfolio of science activities at the CASC that is balanced with respect to, but not limited by, the following criteria: geographic distribution, project cost and duration, applicant type (USGS or consortium), subject matter and focus, need for scientific continuity versus establishing new work, funds management, and related factors. Reviewer comments and feedback on proposals may be released to the Principle Investigators at the discretion of the CASC Federal Director.
 - CASC Federal Directors will review all proposed CASC projects within their region and consult with National and other Regional CASC Federal Directors to identify opportunities for cross-CASC and cross-agency leveraging opportunities. As noted, this may involve consultations with the applicant and proposal revision.

Proposals will be reviewed using the following evaluation criteria & weights. Applicants may be contacted to provide additional or clarifying information.

- Weight: 25% Applicability to one or more high priority science needs identified by the relevant CASC:** The proposed project should directly address an identified regional CASC science priority (See the [Science Priorities & Details for Regional CASCs section](#) for details). The proposed project should inform high priority land, water, fish and wildlife, or cultural heritage resource management issues that can benefit from climate-informed planning and adaptation management, as identified by regional management partners, including Federal, State, or Tribal resource management organizations. The proposal should articulate how the project is connected to a resource management concern, the relevancy of the project results to land, fish, wildlife, habitat, or cultural heritage management issues and how the project will add value to decision-making. Proposals should also explain how the work would use or advance climate-related science. Projects are encouraged that address the needs of multiple partners, are relevant across a broad geographic scope, and/or are generalizable to natural resource decision-making and planning processes.
- Weight: 25% Coordination with partners and engagement of stakeholders for creation of actionable science:** Partners and intended end users of the scientific output of the project (e.g., stakeholders) should be appropriately and proactively engaged in the proposed project to create actionable, usable science, allow investigators to learn from partner and stakeholder experience and on-the-ground observations, and build stakeholder understanding of climate change as it relates to resource conservation planning and adaptation. Proposals should identify the project partners and stakeholders, articulate an engagement plan for how and to what level they will actively participate in the process, and explain why the proposed approach is most appropriate given the research objectives. The project team should demonstrate the capacity to engage with partners and stakeholders at appropriate phases of the project. Proposals are also encouraged to include a preliminary evaluation plan for how their engagement activities will contribute to the science creation process as well as the usefulness and usability of final products.
- Weight: 20% Scientific merit and quality of the proposed research:** Project objectives and anticipated outcomes should be robust and clearly defined. Projects should use a credible scientific approach that reflects the current state of the science and has overall strategy, study design, methodology, and analyses that are well-reasoned and appropriate to accomplish the specific scientific objectives. The proposal should include a Data Management Plan, clearly articulate the anticipated outcomes, and indicate the type of data to be collected and any special data service needs.
- Weight: 10% Study team qualifications:** The Principal Investigator(s) and project team should have high-level training, skills, and knowledge necessary to conduct and achieve the project goals. The proposal should demonstrate a commitment for end-to-end participation from an interdisciplinary, inclusive team (including, where appropriate, resource managers, decision makers, and scientists from the necessary disciplines). Preference will be given to investigator teams with either a strong history of partner and stakeholder engagement, demonstrated capacity, and/or clearly articulated plan for and interest in developing and maintaining these relationships. The CASCs will also evaluate the integration, leadership, governance, and organizational approach of the investigator and team. Collaborative projects should include clear delineation of project responsibilities among team members. Proposals that contribute to the development of early career scientists or managers (within 10 years of completion of a degree or appointment of assistant faculty status) or the training of new scientists through funding of students or post-docs are encouraged.
- Weight: 10% Budget and work plan:** The project budget and work plan will be evaluated on the proposed level of work, expected benefits, complexity and/or scope of effort, practicality and achievability of the

proposed work. Work plans should include a detailed schedule of milestones, workshops, or meetings needed to engage key stakeholders and specific plans for communicating the process and outcomes to the end users.

- **Weight: 10% CASC-specific criterion.** Each regional CASC will include an additional criterion or assign this extra weight to one of the criteria above. See the [Science Priorities & Details for Regional CASCs section](#) for details.
- **Data management:** To be considered, all proposals must include a Data Management Plan (DMP) and comply with requirements regarding data management specified in the CASC data sharing and data management policies found at <https://www.usgs.gov/ecosystems/climate-adaptation-science-centers/data-policy-and-guidance>. USGS policies concerning data management and public access should also be followed. DMPs will be fully reviewed during the proposal evaluation stage by the Data Steward for the relevant CASC region.

Selection and Funding

5. **Selection Process for Full Proposals.**

- After the proposal review stage, selected applicants will be initially notified of USGS intent to award by the respective CASC. This is an informal notification, provided to applicants as a courtesy. The CASC may still work with the applicants during this stage to revise and refine the proposal to meet additional concerns raised during the review process.
- No work should begin on the project at this point. Final awards to CASC consortium members are contingent upon all appropriate legal and administrative reviews and processing through the USGS Office of Acquisition and Grants (OAG). Final discretion on funding decisions for specific projects remains with the CASC Federal Director.

6. **Funding Process.** All funds will be transferred from the relevant CASC to either:

- A USGS entity through a Change of Allocation (COA) or
- A CASC host university through a grant or cooperative agreement.

For additional funding information for the Midwest CASC, please refer to the [Midwest CASC section](#) later in this document. later in this document.

USGS PROPOSALS: Funds will be transferred to your Center/Program/Unit via USGS Change of Allocation (COA) Procedures. Project activities should not be initiated prior to receipt of funding by your organizational unit. USGS PIs may provide subawards to other institutions as detailed in their proposal budget; the PI and their center will be responsible for obtaining all necessary clearances and completing all necessary paperwork. No work on projects should commence until funding is complete.

CONSORTIUM PROPOSALS: Determinations as to whether a grant or a cooperative agreement will be used are made by USGS. **Successful Consortium Proposals require a two-step application process.** After an application has been submitted through RFPManager and selected for intended funding, the appropriate CASC host university will be contacted by the USGS Office of Acquisition and Grants Contracting Officer to submit the *official final application*. Submittal of the official application shall be coordinated with the host university's Office of Sponsored Programs or equivalent. This office shall serve as the official point of contact for the USGS Contracting Officer. Final awards to CASC consortium host or members are contingent upon all appropriate legal and administrative reviews and

processing through the USGS Office of Acquisition and Grants. Final funding decisions for specific projects remain with the CASC.

Subawards: USGS and consortium organization entities may then provide subawards to other parties.

Other funding mechanisms: Other funding mechanisms may be allowed under special circumstances and will follow the appropriate process dictated by that method.

Additional Considerations and Information

NOTE ON PASS-THROUGH INDIRECT COSTS: Non-USGS applicants at academic institutions and non-governmental organizations other than a CASC host university must include an amount to cover pass-through costs for overhead to the host university. Appropriate pass-through charges must be included in the budget form for your proposal. See the [Science Priorities & Details for Regional CASCs](#) section for specifics and details.

Public Disclosure: Certain technical information submitted as part of an application may become a matter of public record and therefore subject to public disclosure pursuant to a Freedom of Information Act (FOIA) request or at the request of other agencies. Grant application information may be available to outside reviewers, although all reviewers are screened with conflict of interest disclosures and bound by confidentiality agreements.

Multiple Project Submissions and Multi-CASC Projects:

- 1) Applicants may submit multiple SOIs/proposals to this funding opportunity for *different* projects at the same or at a different CASC. Please follow the steps within RFPManager ([Appendix A](#)) to start multiple registrations/submissions.
- 2) Applicants should not submit *identical* SOIs/proposals to multiple CASCs unless the “footprint” of the research spans multiple CASC Regions. Applicants must state directly in their SOI/proposal and in RFPManager if they are submitting a project to multiple CASCs. Applicants are encouraged to reach out to regional CASC USGS staff prior to submitting a multi-CASC project to gauge interest and for additional guidance.

Multi-year Funding (relevant especially to USGS applicants): To address issues related to carry-over of federal funds between fiscal years, and because this solicitation can only provide funds for the first fiscal year of the project, the CASCs will work with successful applicants to plan funding for multi-year projects in the subsequent requested fiscal years.

Plain Language Public Summary: Plain Language Public Summaries are a required component for all invited full proposals. The summary must be submitted in the proposal PDF document to RFPManager. Public Summaries should not exceed 300 words, should provide a synopsis of the overall project and be suitable for sharing on public websites and through other outreach methods. See [Appendix D](#) for more guidance on writing this summary.

Annual and Final Project Reports: In addition to the Federal Financial Report required for external agreement administration, Form SF-425, all funded projects are required to submit annual progress reports and a final project report according to the formats provided by the CASC (see [Appendix G](#)). Annual progress reports are due sixty (60) days prior to the end of the budget period, and final reports are due ninety (90) days after the project completion date. Additional or more frequent reporting may be required by Regional CASCs.

Manuscripts Intended for Publication: All funded researchers are required to provide advanced notification to the CASC Federal Director of all anticipated manuscripts intended for publication that have been produced through the CASC funded project (or where staff received funding through a CASC graduate fellowship). All manuscripts should also include appropriate funding acknowledgements. Acknowledgements for funding support from a CASC should follow the guidelines in [Appendix G](#).

CASC Communications Guidelines: Communications products developed by the CASCs for projects or initiatives funded through the USGS are required to follow a set of CASC Communications Guidelines that include information on the use of USGS and DOI logos, funding acknowledgements for products, publications and press releases, and the use of images for USGS products. The guidelines can be found at: <https://www.sciencebase.gov/catalog/item/5f5fb12482ce3550e3bff2d7>

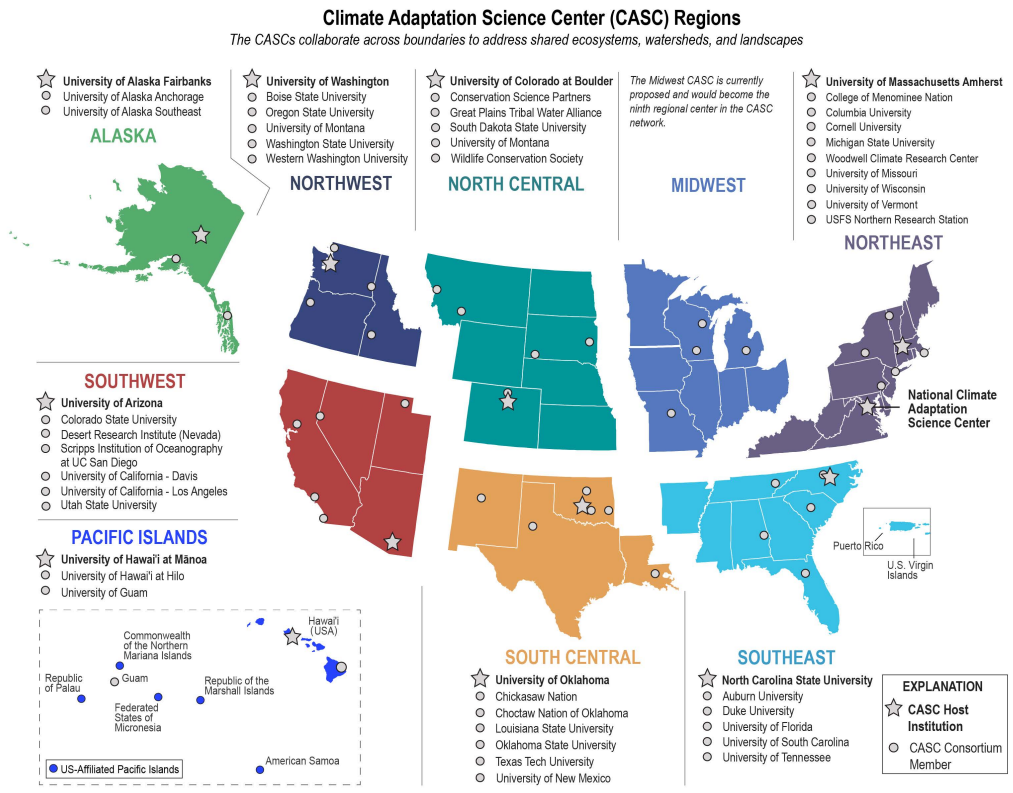
Images: Images are an important means for promoting and communicating about our work. A good photo, video, or infographic can entice people (like a stakeholder or a congressional representative) to read more about your work. PIs chosen for funding by a CASC are strongly encouraged to provide images of their study area or subject and field work to the CASCs for use on public websites and in outreach materials. Non-federal photographers will be asked to sign a photo permission form. Please contact casc@usgs.gov to submit photos or obtain the permission form.

Science Priorities & Details for Regional CASCs

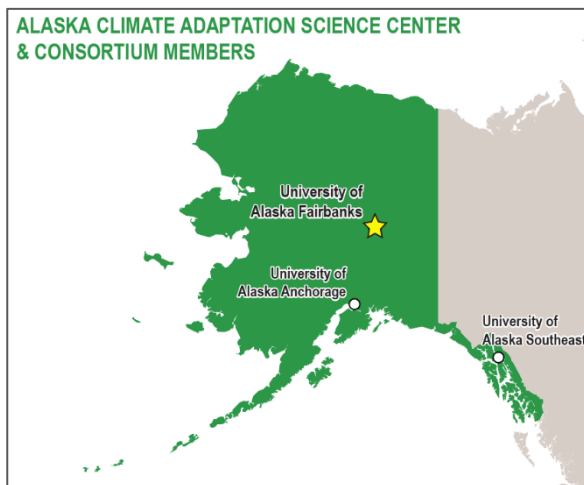
Please see the individual CASC sections that follow for a description of the science needs and specific details about the FY22 funding opportunity for each regional CASC.

If the “footprint” of a research project spans multiple CASC regions, the applicant is encouraged to reach out to the regional CASC federal staff prior to submitting. Applicants must state directly in their SOI/proposal and in RFPManager if they are submitting the same project to multiple CASCs. The CASC region map below is also available for download in RFPManager.

- Alaska CASC 12
- Midwest CASC..... 16
- North Central CASC..... 20
- Northeast CASC 25
- Northwest CASC 30
- Pacific Islands CASC 36
- South Central CASC..... 42
- Southeast CASC 46
- Southwest CASC 51



Alaska CASC



Eligible Applicants

Only individuals from the following eligible organizations may submit proposals as the lead Principal Research Investigator in response to this Funding Opportunity:

1. The Alaska CASC Consortium:
 - University of Alaska Fairbanks (host)
 - Other University of Alaska System campuses (UAS, UAA, etc.)
2. USGS centers, field stations, laboratories, Cooperative Research Units, etc.

Each proposal must have a Principal Investigator (PI) from an eligible organization. Parties from other organizations (Federal, State, Tribal, or other) can serve as Co-PIs and receive funds via subaward from an eligible organization.

Estimated Available Funds	Approximately \$600,000 may be available to fund FY22 projects that support either of two AK CASC research priorities (detailed below).
Project Funding Amounts	The AK CASC intends to fund 3-4 projects through this RFP. Individual project awards are not expected to exceed \$200,000 (inclusive of all indirect and overhead costs as applied by all organizations involved, including any necessary pass-through host costs) for the life of the project.
Project Duration	Generally, not to exceed 24 months (longer projects may be considered at the discretion of the AK CASC Director).
AK CASC USGS Contacts	<i>For questions regarding this solicitation, AK CASC priorities, the general CASC Science Approach, the RFP process, and collaborative opportunities, please contact:</i> Steve Gray, Federal Director, Alaska CASC, sgray@usgs.gov , (907) 301-7830

University of Alaska Contact	<i>For Non-USGS PIs and questions regarding University of Alaska System policies, budgets, and proactive discussions regarding host university pass-through costs, please contact:</i> Scott Rupp, University Director, tsrupp@alaska.edu , (907) 474-7535
Informational Webinar	The National CASC Network will host a general informational webinar on this solicitation on February 16, 2021. Please see Page 3 for details.
Alaska CASC RFP Manager Submission Portal	https://sciencebase.usgs.gov/rfp/#/14979/Alaska_CASC_2022_Funding_Opportunity
About the Alaska CASC	For more information, please visit the AK CASC website: https://akcasc.org/

Background:

The U.S. Department of the Interior (DOI) established the Alaska Climate Adaptation Science Center (AK CASC) in 2010 to address challenges presented by climate change and variability in the Alaska region (<https://akcasc.org/>). The AK CASC’s mission is to provide essential scientific knowledge and science-informed tools to benefit resource managers and other partners interested in climate change adaptation, planning, and management of natural and cultural resources.

In keeping with its mission, the AK CASC identifies research priorities tied closely to the needs of natural and cultural resource managers in the Alaska region. Proposals developed in response to this RFP should focus on developing “actionable science” or knowledge that can inform or be applied to specific management challenges, either locally or broadly across Alaska. Proposals should address one or more of the AK CASC Research Priorities identified below and outline a clear plan to iteratively develop scientific/management questions, collect information, and create science-based knowledge and products. This work must be done in collaboration with stakeholders, and ultimately used to inform climate adaptation, planning, and management. Information on previously funded projects can be found at: <https://akcasc.org/projects-overview/>.

Alaska CASC Research Priorities

For this funding opportunity, the AK CASC seeks proposed projects that respond to one or more of the following priorities, listed below.

Priority 1: The AK CASC seeks proposals that enhance or expand our capacity to support climate adaptation efforts led by our Tribal partners and in Alaska Native communities more broadly. In particular we welcome proposals that leverage previous or ongoing work related to fish and wildlife habitat dynamics in order to address issues related to subsistence resources and/or aspects of community health, sustainability, and resilience related to subsistence activities. Similarly, we encourage proposals that would apply research aimed at characterizing and/or predicting climate variability and change to natural resource management challenges tied to Alaska Native communities. We

anticipate that successful proposals will provide one or more of the following:

- Development of AK CASC products and services focused on the climate adaptation needs of Tribes, communities, and other Alaska Native entities.
- Support for Alaska Native-led research and/or direct participation in research.
- Support for citizen science activities in Alaska Native communities.
- Enhanced two-way communication, outreach, and engagement capacity in Alaska Native communities.
- Technical and/or logistical support for research linked to Alaska Native communities.
- Add additional value to work originally funded under the TESNAR, SISNAR, and BIA Tribal Resilience programs.

Note: Given the large number of requests for funding related to harmful algal blooms and shellfish toxins received in FY 2021, we ask that you please contact AK CASC Director Steve Gray (sgray@usgs.gov) before submitting statements of interest on these specific topics.

Priority 2: In collaboration with the USGS Alaska Science Center (<https://www.usgs.gov/centers/asc>) and the Alaska Cooperative Fish and Wildlife Research Unit (<https://www.akcfwru.uaf.edu/>), the AK CASC seeks proposals that enhance or expand capacity to model stream temperatures in Alaska. Proposals submitted under this priority will be further divided into two tracks:

- Ia. Research focused on applying new or existing modeling approaches to watersheds in Alaska.
- Ib. Efforts that improve cooperation and coordination among State and Federal agencies, Alaska Native groups, NGOs, and/or citizen scientists in order to strengthen data collection in support of modeling.

For proposals submitted under Ia., we specifically invite research to improve estimates of stream temperatures over the historical period and/or for areas where observations are insufficient to characterize present conditions, while also strengthening our ability to project the impacts of future climate variability and change on aquatic thermal regimes. For efforts under Ib., successful proposals will provide frameworks for promoting cooperative data collection efforts, and for ensuring that observations are suitable for applications in stream temperature modeling. For both tracks we especially encourage proposals that leverage previous or ongoing stream monitoring work, though proposals that address areas with sparse observation networks will also be considered.

Alaska CASC Additional Evaluation Criteria

All SOIs and Proposals will be evaluated against the criteria detailed under the [Application Process & Evaluation Criteria](#) section, above. Each regional CASC can choose to give extra weight to an existing criterion listed in the section above or add an additional evaluation criterion to ensure that all weights add to 100%. For the Alaska CASC, the specific additional evaluation criteria are listed below.

SOI Evaluation

The Alaska CASC applies the remaining 5% SOI evaluation weighting to the following existing criterion:

Coordination with partners and engagement of stakeholders for creation of actionable science

Full Proposal Evaluation

The Alaska CASC applies the remaining 10% evaluation weighting to the following existing criterion:

Coordination with partners and engagement of stakeholders for creation of actionable science

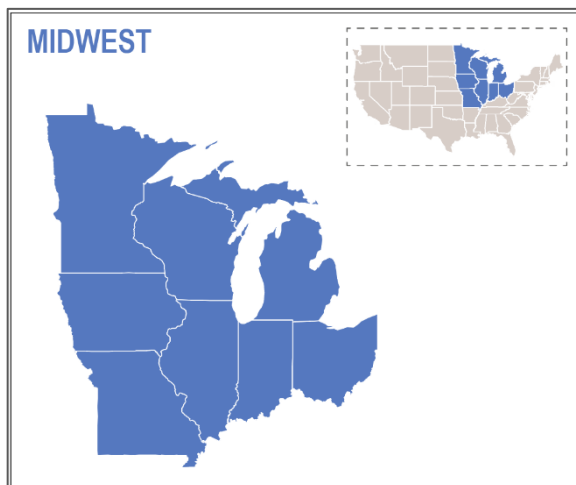
NAVIGATION

Back To: [Funding Opportunity Details & Schedule](#)

Back To: [Application Process & Evaluation Criteria](#)

Back To: [Science Priorities & Details for Each CASC](#)

Midwest CASC



Eligible Applicants

Only individuals from the following eligible organizations may submit proposals, as the lead Principal Research Investigator, in response to this Funding Opportunity:

1. USGS centers, field stations, laboratories, Cooperative Research Units, etc.
2. The Midwest CASC (MW CASC) Consortium:
 - To be determined (see below)

Each proposal must have a Principal Investigator (PI) from an eligible organization. Parties from other organizations (Federal, State, Tribal, or other) can serve as Co-PIs and receive funds via subaward from an eligible organization.

We will also consider alternative mechanisms to directly award projects to non-consortium universities (e.g., CESU).

Estimated Available Funds	Up to \$1,750,000 may be available to fund FY22 projects that support MW CASC research priorities (detailed below).
Project Funding Amounts	The MW CASC intends to fund 5-8 projects through this funding opportunity. Individual project awards are not expected to exceed \$400,000 (inclusive of all indirect and overhead costs as applied by all organizations involved, including any necessary pass-through host costs) for the life of the project.
Project Duration	Generally, not to exceed 24 months (longer projects may be considered at the discretion of the MW CASC Director).
MW CASC USGS Contacts	For questions regarding this solicitation and MW CASC priorities, please contact: Olivia LeDee, Midwest CASC, oledee@usgs.gov , (413) 244-1441

	For questions about RFPManager and the submission portal, please contact: casc@usgs.gov
--	---

Informational Webinar	<p>The National CASC Network will host a general informational webinar on this solicitation on February 16, 2021. Please see Page 3 for details.</p> <p>Additionally, the Midwest CASC will host an informational webinar/question and answer session pertaining to the region’s specific priorities and processes. This webinar will be recorded and made available for online viewing.</p> <p>Midwest CASC webinar: Date and Time: Thursday, February 18, 2021 from 1:00 - 2:00 PM Central Time Topic: MW CASC RFP FY22</p> <p>Join Zoom Meeting https://umn.zoom.us/j/98354330279?pwd=UTJrcmtjRU8vNWRIZWRaMXRMTmhVZz09</p> <p>Meeting ID: 983 5433 0279 Passcode: mwcascfy22</p> <p>Dial by your location +1 651 372 8299 US (Minnesota) +1 312 626 6799 US (Chicago) Passcode: 2927331342</p>
------------------------------	---

Midwest CASC RFPManager Submission Portal	https://sciencebase.usgs.gov/rfp/#/14716/Midwest_CASC_2022_Funding_Opportunity
--	---

About the Midwest CASC	<p>In February 2021, USGS will post an open call for a Midwest CASC host university/consortium on Grants.gov. Although the consortium of the Midwest CASC is not known at the time of the release of this Funding Opportunity, it is expected to be in place before FY 2022 grants are awarded. We understand that this uncertainty may lead to budgetary adjustments that will be addressed closer to the award date. Provisional budgets should reflect the current federally negotiated rates for the applicant’s organization.</p> <p>For questions about the Midwest CASC, please see the contact listed above.</p> <p>Background information on the Climate Adaptation Science Center network can be found at: https://www.usgs.gov/ecosystems/climate-adaptation-science-centers</p>
-------------------------------	--

Additional Information:

All MW CASC funded projects are required to submit interim and annual reports. Final reports are due 90 days after the close of the performance period covered by each project agreement. An initial (partial) Data Management Plan

(DMP) is to be submitted as part of the full proposal package and updated if an award is made. A full DMP must be in place before the awarded project begins. When a project is complete, the Midwest CASC's USGS Science Coordinator and Data Steward will collect all final products and make them publicly available in the USGS repository (ScienceBase).

The Midwest CASC is currently proposed and would become the 9th regional center in the CASC network.

Midwest CASC Research Priorities

The Midwest CASC welcomes proposals that:

- 1) provide fundamental climate science on regional conditions or under-studied species/ecosystems,
- 2) assess the effects of climate change on natural and cultural resources, or
- 3) evaluate the implications, risks, costs, and efficacy of climate adaptation.

Proposals should address issues faced by natural and/or cultural resource managers from federal, state, and/or Tribal governments, generate knowledge to address that challenge, and engage resource managers in meaningful ways.

Proposals should be responsive to one of the following five management challenges and an associated science priority (see *Midwest CASC Appendix 1*, available for download in *RFPManager*, for a full description of *Science Priorities*).

Management Challenge 1: Heavy precipitation events and drought

Heavy precipitation events, flooding, and drought alter the condition, structure, services, and management of natural resources

Management Challenge 2: Loss of winter

Warming winters, altered snow patterns, and increased variability affect fish and wildlife populations, habitat management, and nature-based recreation

Management Challenge 3: Altered hydrological regimes

Changes in temperature, flows, and connectivity alter high-value fish populations, at-risk aquatic organisms, and culturally important resources

Management Challenge 4: Novel terrestrial landscapes

Shifts in vegetation and human responses to climate change alter the suitability of the landscape for priority and at-risk wildlife populations

Management Challenge 5: Barriers to and opportunities for adaptation

Climate change alters the feasibility of management goals and suitability of management tools

Additional Information:

Special consideration will be given to proposals focused on: Species in Greatest Conservation Need (SGCN), listed species or those under consideration for the Federal Endangered Species Act, fish and wildlife resources of economic and/or cultural importance, and habitats of importance to multiple focal species. Special consideration will be also given to proposals focused on federal, state, or Tribal lands.

Midwest CASC Additional Evaluation Criteria

All SOIs and Proposals will be evaluated against the criteria detailed under the [Application Process & Evaluation Criteria](#) section, above. Each regional CASC can choose to give extra weight to an existing criterion listed in the section above or add an additional evaluation criterion to ensure that all weights add to 100%. For the Midwest CASC, the specific additional evaluation criteria are listed below.

SOI Evaluation:

The MW CASC applies the remaining 5% SOI evaluation weighting to the following existing evaluation criterion: **Scientific merit and quality of the research:** The project objectives described in the SOI should be robust and clearly defined. The SOI should demonstrate sound scientific methodology, study design, and data management.

Full Proposal Evaluation:

The MW CASC applies the remaining 10% evaluation weighting to the following existing evaluation criterion: **Scientific merit and quality of the proposed research:** Project objectives and anticipated outcomes should be robust and clearly defined. Projects should use a credible scientific approach that reflects the current state of the science and has overall strategy, study design, methodology, and analyses that are well-reasoned and appropriate to accomplish the specific scientific objectives. The proposal should include a Data Management Plan, clearly articulate the anticipated outcomes, and indicate the type of data to be collected and any special data service needs.

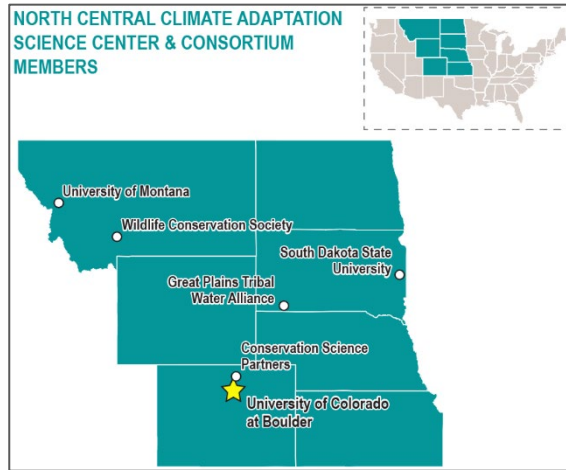
NAVIGATION

Back To: [Funding Opportunity Details & Schedule](#)

Back To: [Application Process & Evaluation Criteria](#)

Back To: [Science Priorities & Details for Each CASC](#)

North Central CASC



Eligible Applicants

Only individuals from the following eligible organizations may submit proposals as the lead Principal Research Investigator in response to this Funding Opportunity:

- Members of the NC CASC Consortium:
 - University of Colorado (host institution)
 - Conservation Science Partners
 - Great Plains Tribal Water Alliance
 - South Dakota State University
 - University of Montana
 - Wildlife Conservation Society
- USGS centers, field stations, laboratories, Cooperative Research Units, etc.

Each proposal must have a Principal Research Investigator (PI) from an eligible organization. Consortium-initiated proposals must be submitted through the NC CASC host institution, the University of Colorado.

All funds will be transferred from the NC CASC to either: 1) a USGS entity through a change of allocation or 2) the University of Colorado through a grant or cooperative agreement. These entities may then provide subawards to members of the NC CASC consortium or other parties. Parties from other organizations (federal, state, tribal, or other) can serve as project co-investigators and receive funds via subaward or interagency agreement from an eligible organization.

Estimated Available Funds	Up to \$1,700,000 may be available to fund FY22 projects that support NC CASC research priorities (detailed below).
Project Funding Amounts	The NC CASC intends to fund 8-10 projects through this RFP. Individual project awards are not expected to exceed \$350,000 (inclusive of all indirect and overhead costs as applied by all organizations involved, including any necessary pass-through host costs) for the life of the project.

Project Duration	NC CASC-funded project durations generally range from 24-36 months; projects are not to exceed 36 months.
NC CASC USGS Contacts	<p>Dr. Nicole DeCrappeo, Federal Director, NC CASC ndecrappeo@usgs.gov, (541) 750-1021</p> <p><i>For questions regarding this solicitation, NC CASC priorities, science approach, collaborative opportunities, and the RFP submission process, please contact:</i></p> <p>Dr. Alisa Wade, Research Coordinator, NC CASC awade@usgs.gov, (406) 529-5386</p>
NC CASC University of Colorado Contacts	<p>Dr. Jennifer Balch, University Director, NC CASC jennifer.balch@colorado.edu</p> <p><i>For Non-USGS PIs and questions regarding University of Colorado policies, budgets, and proactive discussions regarding host university pass-through costs, please contact:</i></p> <p>Dr. Jane Wolken, Program Manager, NC CASC jane.wolken@colorado.edu</p>
Informational Webinars	<p>The National CASC Network will host a general informational webinar on this solicitation on February 16, 2021. Please see page 3 for connection details.</p> <p>Additionally, the NC CASC will host an informational webinar/Q&A session pertaining to the NC CASC's specific research priorities, evaluation criteria, and funding flows. This webinar will be recorded and made available for online viewing.</p> <p>NC CASC informational webinar: Friday, February 19, 2021, 12:00 PM (NOON) – 1:00 PM Mountain Standard Time</p> <p>Connect via Zoom or phone</p> <p><u>Zoom option:</u> https://cuboulder.zoom.us/j/92358352803 Meeting ID: 923 5835 2803</p> <p><u>Phone option:</u> +1 669 900 6833 US (San Jose) +1 312 626 6799 US (Chicago) Meeting ID: 923 5835 2803</p>
North Central CASC RFPManager Submission Portal	https://sciencebase.usgs.gov/rfp/#/14765/North_Central_CASC_2022_Funding_Opportunity
About the North Central CASC	https://nccasc.colorado.edu/

Background:

The **North Central Climate Adaptation Science Center (NC CASC)** is a partnership between the U.S. Geological Survey, the University of Colorado Boulder, and five consortium partners. The NC CASC fosters innovative and applied research in support of tribal, federal, state, and local natural resource management and decision-making. The NC CASC serves the changing needs of land and resource managers across Colorado, Wyoming, Montana, North Dakota, South Dakota, Kansas, and Nebraska. Researchers affiliated with the USGS, University of Colorado-Boulder, or any of the five consortium partner organizations are eligible to submit a proposal under this RFP. Prospective PIs from a consortium partner organization are encouraged to contact the primary organizational contact for more information on the NC CASC and its priorities:

Institution	Name	Email
Conservation Science Partners	Dr. Shelley Crausbay	shelley@csp-inc.org
Great Plains Tribal Water Alliance	James Rattlingleaf, Sr.	jamesrl413@gmail.com
South Dakota State University	Dr. Laura Edwards	laura.edwards@sdstate.edu
University of Montana	Dr. Phil Higuera	phil.higuera@umontana.edu
Wildlife Conservation Society	Dr. Molly Cross	mcross@wcs.org

Additional Information:

Proposers working with Tribes or tribal entities are strongly encouraged to contact the NC CASC Tribal Resilience Liaison (Stefan Tangen; stefan.g.tangen@gmail.com) and/or the NC CASC Consortium co-PI for the Great Plains Tribal Water Alliance (James Rattling Leaf, Sr.; jamesrl413@gmail.com) prior to submitting their Statements of Interest. Proposers must explicitly ensure tribal sovereign management of resources by including at least one Tribe or tribal entity as full investigators on the project, articulating a framework for bringing in input from tribal members, and ensuring that this input is incorporated into the project. Topics should be of importance to and identified by the Tribe/tribal entity and address management of fish, wildlife, habitat, or cultural resources under a changing climate.

North Central CASC Research Priorities

For this funding opportunity, the NC CASC seeks proposals that respond to one or more of the three science priority topics, listed below. Proposals that consider or undertake one or more of the cross-cutting themes of interest, also listed below, will be given additional weight during evaluation. We also encourage applicants to read about the CASC Science Approach ([Appendix F](#)) and to review the NC CASC Strategic Science Plan, found at: <https://nccasc.colorado.edu/strategic-science-planning>.

Science Priority Topic A: Fish, wildlife, and their habitats under a changing climate

Climate change interacts with other threats to affect individual species and their habitats in potentially unexpected ways. The NC CASC seeks proposals that explore these compounding effects and changes and how management actions can prepare or respond for climate adaptation. Potential topics include:

- Habitat loss and refugia: assess how climate change will drive losses in quantity and quality of important habitat, how core habitat may shift in space and time, and/or the identification of plausible climate refugia (within and outside of historic ranges).
- Habitat connectivity: assess how climate will affect habitat connectivity (either structural and functional connectivity of habitat patches or the connectedness of the landscape that allows for natural processes).
- Habitat or species vulnerability: assess how resource management actions might reduce sensitivity or improve adaptive capacity in order to decrease species or habitat vulnerability.
- Habitat and species distributions: assess shifts in species distributions and community compositions (e.g., divergent shifts in native species, changes in the presence and abundance of invasive species).
- Phenology: assess impacts of loss of synchrony or interacting changes in phenology.

Science Priority Topic B: The future of hydrologic flows

Climate change influences in-stream flows and temperatures, with implications for a wide range of resource management issues. The NC CASC seeks proposals for research efforts to forward the relevancy, accessibility, and precision of science, data, and tools to support planning and decision-making for water resource management related to fish, wildlife, and habitat. Potential topics include:

- Existing method and models synthesis: complete an assessment of how management needs compare with the state of the science for projecting future stream flow and/or temperature. The research team should be “model agnostic” and be able to evaluate numerous available methods and models using consistent and unbiased criteria.
- Data or model development: improve or develop novel data or modeling techniques that are clearly not already available and respond to specific needs for resource management. Proposals should address management questions for broad spatial extents.
- Accessibility and interpretation of hydrologic projections: develop, prototype, and test visualization of climate-driven hydrological projections to effectively convey the range of possible futures relevant to climate-informed planning for fish, wildlife, and habitats. Proposals should include evaluation of effectiveness of visualizations to increase understanding and interpretation of uncertainty and risk by resource managers.

Science Priority Topic C: Ecological transformation and extremes

Climate change has the potential to transform ecosystems. Transformation entails the wholesale change of ecosystem composition, structure, and function that affects both habitats and the ecological services provided, creating novel or “no-analog” conditions. However, natural resource management planning often focuses on making ecosystems more resilient to climate change to maintain current conditions. The “RAD Framework” encourages managers to consider when and where management should focus on **R**esistance to climate change transformation, but also when and where transformation is inevitable and likely should be **A**ccepted or can be **D**irected – toward a different, but amenable, ecological state (<https://doi.org/10.36967/nrr-2283597>). The NC CASC seeks proposals for research projects that would inform best management options under ecological transformation and climate-influenced extreme events. Potential topics include:

- Understanding climate-relevant drivers of ecosystem change, shifts in risk and vulnerability to change, and key thresholds for irreversible transformation.
- Establishing guiding principles by species or systems regarding whether transformation should be resisted, accepted, or directed through management actions.
- Identifying systems at high risk of transformation, and articulating adaptation options or amenable novel alternatives including key management decision points and barriers.

Cross-Cutting Themes of Interest

- Advancing diversity, equity, and inclusion (DEI) best principles in the climate change adaptation sciences and workforce
- Addressing human dimensions of climate-adapted natural and cultural resource management, which may include (but are not limited to) economic or sociological analyses of climate adaptation options or impacts
- Improving our understanding of how and why managers move from climate adaptation planning to on-the-ground action, including potential evaluation of this critical step from science or planning to practice
- Developing and implementing innovative outreach efforts and products to translate science or tools to actionability (akin to climate adaptation extension services), emphasizing taking knowledge from research and bringing it directly to resource managers
- Building ongoing capacity for climate-adapted natural and cultural resource management through the development of training modules targeted for managers that could be incorporated into a larger body of NC CASC training resources

North Central CASC Additional Evaluation Criteria

All SOIs and Proposals will be evaluated against the criteria detailed under the [Application Process & Evaluation Criteria](#) section, above. Each regional CASC can choose to give extra weight to an existing criterion listed in the section above or add an additional evaluation criterion to ensure that all weights add to 100%. For the NC CASC, the specific additional evaluation criteria are listed below.

SOI Evaluation

The NC CASC applies the remaining 5% SOI evaluation weighting to the following criterion:

The degree to which SOIs address one or more of the cross-cutting themes of interest, listed above.

Full Proposal Evaluation

The NC CASC applies the remaining 10% evaluation weighting to the following criterion:

The degree to which Proposals address one or more of the cross-cutting themes of interest, listed above.

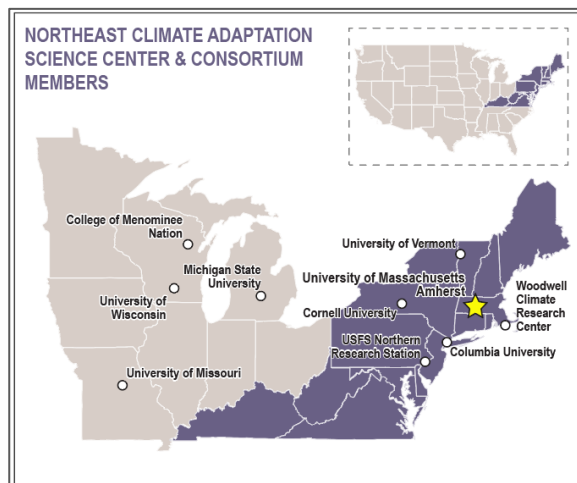
NAVIGATION

Back To: [Funding Opportunity Details & Schedule](#)

Back To: [Application Process & Evaluation Criteria](#)

Back To: [Science Priorities & Details for Each CASC](#)

Northeast CASC



Eligible Applicants

Only individuals from the following eligible organizations may submit proposals as the lead Principal Research Investigator in response to this Funding Opportunity:

1. The NE CASC Consortium:
 - University of Massachusetts Amherst (host) and consortium partners:
 - Columbia University
 - Cornell University
 - University of Vermont
 - USFS Northern Research Station
 - Woodwell Climate Research Center
 - College of Menominee Nation
 - Michigan State University
 - University of Missouri
 - University of Wisconsin
2. USGS centers, field stations, laboratories, Cooperative Research Units, etc.

Each proposal must have a Principal Investigator (PI) from an eligible organization. Parties from other organizations (Federal, State, Tribal, or other) can serve as Co-PIs and receive funds via subaward from an eligible organization.

Please note that the eligibility criteria and geographical footprints of the Northeast and Midwest regions have recently been revised.

Estimated Available Funds

Up to \$1,250,000 may be available to fund FY22 projects that support 4 CASC research priorities (detailed below).

Project Funding Amounts	The NE CASC intends to fund up to 6-10 projects through this RFP. Individual project awards are not expected to exceed \$400,000 (inclusive of all indirect and overhead costs as applied by all organizations involved, including any necessary pass-through host costs) for the life of the project.
Project Duration	Generally, not to exceed 36 months (longer projects may be considered at the discretion of the NE CASC Director).
NE CASC USGS Contacts	<p>Katherine Smith, Federal Director, Northeast CASC, katherinesmith@usgs.gov</p> <p><i>For questions regarding the SOI/proposal submission process and the RFP Manager system, please contact:</i></p> <p>Michelle Staudinger, NE CASC Science Coordinator, mstaudinger@usgs.gov</p> <p>For questions regarding the Midwest CASC priorities and RFP process, please see page 16 and contact Olivia LeDee at oledee@usgs.gov.</p>
University of Massachusetts Amherst Contacts	<p><i>For Non-USGS PIs and questions regarding University of Massachusetts Amherst policies, budgets, and proactive discussions regarding host university pass-through costs, please contact:</i></p> <p>Richard Palmer, University Director, rpalmer@engin.umass.edu Addie Rose Holland, Deputy University Director, aholland@geo.umass.edu</p>
Informational Webinar	<p>The National CASC Network will host a general informational webinar on this solicitation on February 16, 2021. Please see page 3 for connection details.</p> <p>Additionally, the NE CASC will host an informational webinar / question and answer session pertaining to the region's specific priorities and processes. This webinar will be recorded and made available for online viewing.</p> <p>Date and Time: Tuesday, February 23, 2021, 12:00 PM – 1:00 PM Eastern Time Link: https://umass-amherst.zoom.us/j/97404644459?pwd=NFIPSks3TIFscDF6bHYwejVHQ25yQT09 Passcode: 305582</p>
Northeast CASC RFPManager Submission Portal	https://sciencebase.usgs.gov/rfp/#/14731/Northeast_CASC_2022_Funding_Opportunity
About the Northeast CASC	https://www.umass.edu/necsc/

Background:

The U.S. Department of the Interior (DOI) established the NE CASC in 2012 to address the challenges presented by

climate and land use change in the Northeastern United States. NE CASC's mission is to develop and deliver scientific knowledge and tools needed to help fish, wildlife, water, land, and people adapt to a changing climate. NE CASC operates using advice and guidance from a Stakeholder Advisory Committee. NE CASC broad scientific priorities and principles of operation are described in our seven Science Themes and Strategic Science Agenda:

<http://necsc.umass.edu/ne-climate-science-agenda>

Additional Information:

New footprint for the Northeast CASC: In FY 2020, we received funding to establish a Midwest Climate Adaptation Science Center (MW CASC) (HR 116-100), creating two Centers from our existing footprint, a NE CASC and a MW CASC.

The Midwest CASC applies to eligible institutions in Ohio, Indiana, Michigan, Illinois, Wisconsin, Iowa, Minnesota and Missouri (see [page 16](#)). The new geographical footprint of the NE CASC includes Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, Pennsylvania, New Jersey, Delaware, Maryland, West Virginia, Virginia and Kentucky. The Midwest CASC is currently proposed and would become the 9th regional center in the CASC network.

NE CASC Tribal Resilience Liaison: Proposers working with Tribal Nations or Tribal organizations are strongly encouraged to contact the NE & SE CASC Tribal Resilience Liaison, Casey Thornbrugh (cthornbrugh@usetinc.org) prior to submitting their Statements of Interest. Proposers should be explicit in how the project will engage Tribal partners and ensure Tribal sovereign management of resources. Topics should be important to and identified by the Tribal Nation/Tribal organization and address management of fish, wildlife, habitat, or cultural resources under a changing climate.

Northeast CASC Research Priorities

For this funding opportunity, the NE CASC seeks proposed projects that respond to one or more of the following priorities, listed below.

- 1. Evaluating the effectiveness of adaptation actions.** We are interested in projects that test the effectiveness of climate adaptation actions, on pilot or regional scales, and produce information useful to northeast natural resource managers to inform adaptation strategies and meet their management objectives. Potential research areas include, but are not limited to: 1) demonstration/field testing of adaptation alternatives, 2) modeling studies to simulate and test the efficacy of alternative actions, and/or 3) cost-benefit analyses of using additional climate change information to increase resilience. Projects that demonstrate transferability to other areas will be prioritized.
- 2. Adapting monitoring programs to better capture and track system level climate impacts.** Fish, wildlife, and habitat monitoring programs are often oriented toward evaluating the effects of non-climate stressors and related management actions. We seek research efforts that leverage or enhance existing monitoring programs and/or inform modification of existing monitoring programs to explicitly address climate impacts and ecological responses in the northeast. Of particular interest are evaluations of how existing monitoring programs could be improved to: a) better track climate change and ecological responses on community and ecosystem scales; b) better capture information on ecological processes that provide early warning of system changes (thresholds and tipping points); or c) develop, improve or integrate indicators for fish and wildlife responses to climate change.
Funding of monitoring programs and monitoring data collection is outside the scope of the NE CASC.

3. **Understanding how climate change influences urban natural resources.** The Northeastern U.S. is a highly developed and densely populated region, with urban and urbanizing landscapes scattered throughout extensive natural environments that support priority fish and wildlife species. These urban and urbanizing landscapes are increasingly recognized as containing critical habitats and corridors for priority species as they respond to climate change (e.g., through shifts in range, phenology and distribution). As the impacts of climate change increase and continue to interact with non-climate stressors common to urban areas (e.g., pollution, habitat fragmentation and degradation), observed changes in urban systems can serve as proxies of anticipated impacts to undeveloped lands. We are broadly interested in research and assessments that inform adaptation of fish, wildlife, and their habitats in urban landscapes. Projects may also inform urban resilience strategies (e.g., disaster recovery, nature-based solutions) that incorporate co-benefits for fish/wildlife habitat and other urban resilience targets.

4. **Climate science on invasive fish, wildlife or insect species; or changing pest and pathogen landscape.** We welcome projects that address the impacts of, and solutions to, emergent or anticipated (non-native) invasive fish, wildlife or insect species or native species with climate-driven transformational roles in northeast ecosystems. Projects may address, but are not limited to: a) climate-induced shifts in the range, distribution, abundance, and/or functional role of a native or non-native invasive fish, wildlife, or insect species, infectious disease, or pathogen; b) the effectiveness of planned and/or implemented management actions to address climate-driven biological invasions or transformations; c) identification of invasive fish, wildlife, or insect species with the greatest potential to disrupt ecosystem function; and d) assessments and projections of areas most susceptible to new invasions and establishment of climate-mediated pests and pathogens.

Cross-Cutting Themes of Interest:

- Advancing diversity, equity, and inclusion (DEI) best principles in the climate change adaptation sciences and workforce
- Supporting capacity building in southeastern Tribal nations, support Tribal-led research or direct participation in the research, address issues of shared governance, and/or provide products and services focused on Tribal climate adaptation priorities
- Addressing human dimensions of climate-adapted natural and cultural resource management, which may include (but are not limited to) economic or sociological analyses of climate adaptation options or impacts
- Developing and implementing innovative outreach efforts and products to translate science or tools to actionability
- Engaging in meaningful and sustained dialog with management partners and stakeholders throughout the entire cycle of research to ensure actionable science
- Addressing Regional Species of Greatest Conservation Need (SGCN), listed species or those under consideration for the Federal Endangered Species Act; and/or fish, wildlife, and habitats of economic and/or cultural importance

This funding opportunity will support projects that address the priorities outlined above. The [Midwest CASC funding opportunity](#) will support projects that address the priorities of the new MW CASC.

Northeast CASC Additional Evaluation Criteria

All SOIs and Proposals will be evaluated against the criteria detailed under the [Application Process & Evaluation Criteria](#) section, above. Each regional CASC can choose to give extra weight to an existing criterion listed in the

section above or add an additional evaluation criterion to ensure that all weights add to 100%. For the NE CASC, the specific additional evaluation criteria are listed below.

SOI Evaluation

The NE CASC applies the remaining 5% SOI evaluation weighting to the following criterion:

Total Cost in proportion to project impact

Full Proposal Evaluation

The NE CASC applies the remaining 10% evaluation weighting to the following criterion:

Budget and work plan

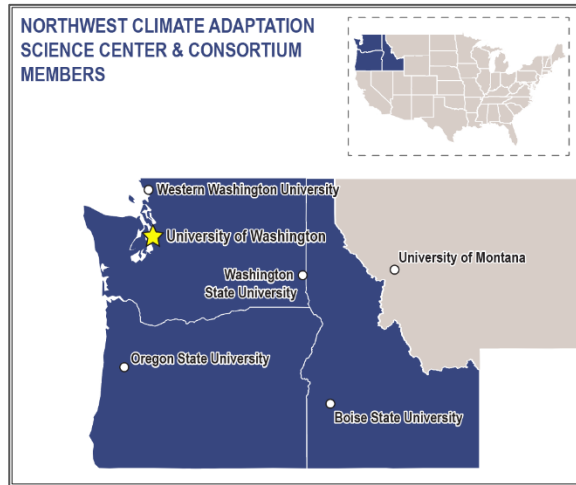
NAVIGATION

Back To: [Funding Opportunity Details & Schedule](#)

Back To: [Application Process & Evaluation Criteria](#)

Back To: [Science Priorities & Details for Each CASC](#)

Northwest CASC



Eligible Applicants

Only individuals from the following eligible organizations may submit proposals as the lead Principal Research Investigator in response to this Funding Opportunity:

1. Members of the NW CASC Consortium:
 - University of Washington (host institution)
 - Boise State University
 - Oregon State University
 - University of Montana
 - Washington State University
 - Western Washington University
2. USGS centers, field stations, laboratories, Cooperative Research Units, etc.

Each proposal must have a Principal Investigator (PI) from an eligible organization. Consortium-initiated proposals must be submitted through the NW CASC host institution, the University of Washington.

All funds will be transferred from the NW CASC to either: 1) a USGS entity through a change of allocation or 2) the University of Washington through a grant or cooperative agreement. These entities may then provide subawards to members of the NW CASC consortium or other parties. Parties from other organizations (federal, state, tribal, or other) can serve as project co-investigators and receive funds via subaward or interagency agreement from an eligible organization.

Estimated Available Funds	Up to \$1,000,000 may be available to fund FY22 projects that support NW CASC research priorities (detailed below).
Project Funding Amounts	The NW CASC intends to fund 8-10 projects through this RFP. Individual project awards are not expected to exceed \$350,000 (inclusive of all indirect and overhead costs as applied by all organizations involved, including any necessary pass-through host costs) for the life of the project.

Project Duration	NW CASC-funded project durations generally range from 24-36 months; projects are not to exceed 36 months.
NW CASC USGS Contacts	<p>Dr. Nicole DeCrappeo, Federal Director, NW CASC ndecrappeo@usgs.gov, (541) 750-1021</p> <p><i>For questions regarding the SOI/proposal submission process and the RFPManager system, please contact:</i> Dr. Betsy Glenn, Research Coordinator, NW CASC eglenn@usgs.gov, (541) 750-1022</p>
NW CASC University of Washington Contacts	<p>Dr. Amy Snover, University Director, NW CASC aksnover@uw.edu, (206) 221-0222</p> <p><i>For questions regarding University of Washington policies, budgets, and proactive discussions regarding host university pass-through costs, please contact:</i> Laura Davis, Grants and Contracts Manager, NW CASC ldavis@uw.edu, (206) 616-5348</p>
Informational Webinars	<p>The National CASC Network will host a general informational webinar about this solicitation on February 16, 2021. Please see page 3 for connection details.</p> <p>Additionally, the NW CASC will host an informational webinar/Q&A session pertaining to the NW CASC's specific research priorities, evaluation criteria, and funding flows. This webinar will be recorded and made available for online viewing.</p> <p>NW CASC informational webinar: Tuesday, February 16, 2021, 3:00 – 4:00 PM PST Connect via Zoom or phone</p> <p><u>Zoom option:</u> https://us02web.zoom.us/j/83728660299?pwd=RTVJMU9MUWlpQ0VFNU1RUXI5cUpYUT09 Passcode: nwcasc</p> <p><u>Phone option:</u> (253) 215-8782 Meeting ID: 837 2866 0299 Passcode: 990351</p>
Northwest CASC RFPManager Submission Portal	https://sciencebase.usgs.gov/rfp/#/14960/Northwest_CASC_2022_Funding_Opportunity
About the Northwest CASC	https://nwcasc.uw.edu/

Background:

The **Northwest Climate Adaptation Science Center (NW CASC)** was established to help safeguard the natural and cultural resources of Idaho, Oregon, Washington, and western Montana. We are a federal-university partnership that produces relevant and accessible science on climate change impacts and adaptation actions for Northwest natural resource managers and policymakers. This partnership allows access to a broad range of scientific expertise, production of high-quality science and the leveraging of funds, resources and facilities. The NW CASC Consortium Institutions and lead investigators are listed below. These investigators have a strong sense of the primary objectives and science approach of the NW CASC. Individuals from NW CASC Consortium Institutions applying to this funding opportunity are encouraged to discuss proposal ideas with their respective university's lead investigator.

<i>Institution</i>	<i>Name</i>	<i>Email</i>
Boise State University	Dr. Alejandro Flores	lejoflores@boisestate.edu
Oregon State University	Dr. Selina Heppell	selina.heppell@oregonstate.edu
University of Montana	Dr. Solomon Dobrowski	solomon.dobrowski@umontana.edu
Washington State University	Dr. Julie Padowski Dr. Jan Boll	julie.padowski@wsu.edu j.boll@wsu.edu
Western Washington University	Dr. John Rybczyk	john.rybczyk@wwu.edu

Additional Information:

Proposers working with Tribes or tribal entities are strongly encouraged to contact the NW CASC Tribal Resilience Liaison, Chas Jones (cejones@usgs.gov) prior to submitting their Statements of Interest. Proposers must explicitly ensure tribal sovereign management of resources by including at least one Tribe or tribal entity as full investigators on the project, articulating a framework for bringing in input from tribal members, and ensuring that this input is incorporated into the project. Topics should be important to and identified by the Tribe/tribal entity and address management of fish, wildlife, habitat, or cultural resources under a changing climate.

Northwest CASC Research Priorities

In keeping with its mission to ***deliver science to help fish, wildlife, water, land, and people adapt to a changing climate***, NW CASC research activities are closely tied to the priorities of natural and cultural resource managers in the Northwest. Proposals developed in response to this funding opportunity should focus on developing scientific information and products that can be directly applied to specific management challenges, either locally or broadly across landscapes in Idaho, Oregon, Washington, and western Montana. All projects should: 1) address one or more climate adaptation priorities of the [U.S. Department of the Interior bureaus](#) and/or federally recognized tribes in the Northwest region, and 2) prioritize co-development of scientific questions, information, and products with the intended scientific product end users (see [Appendix F: CASC Science Approach](#) for more information about co-development of actionable science).

For FY 2022, NW CASC research activities will focus on the following resource management priorities and key science opportunities (as detailed in the [NW CASC Science Agenda for 2018-2023](#)):

Topic 1. Management of Invasive Species and Diseases under Future Climate Scenarios

Management agencies have devoted considerable resources to preventing the spread of invasive species and diseases or restoring invaded areas. However, there are concerns about how climate change will affect rates of spread and questions about which species may become ecologically and/or economically damaging under future climate conditions.

Topic 1 Key Science Opportunities to which proposals should respond:

1. Assess climate change impacts on invasive species' rate of spread. In particular,
 - a. identify landscapes, habitats, or localized areas that will be most susceptible to new invasions and/or diseases under future climate scenarios
 - b. identify emerging or under-recognized ecosystem impacts from invasive species and/or diseases that may develop under warmer and drier climate conditions (e.g., invasive forage species replacing native food sources for deer and elk)
2. Assess/evaluate current invasive species or disease control management tools and actions that may become increasingly or decreasingly effective under future climate scenarios
3. Identify ways in which invasive species and climate change may interact to impact native species of importance to Northwest tribes (e.g., First Foods, weaving materials, culturally significant species)
4. Compile and synthesize case studies in which future climate scenarios have been explicitly incorporated into invasive species management decisions and actions. The overarching goal is to provide best practices for managers and help answer the question, "What does successful climate adaptation look like in relation to invasive species and disease management?"

Topic 2. Management of Shrubland Ecosystems under Future Climate Scenarios

Arid and semi-arid shrublands cover millions of acres of land in the Northwest and, through livestock grazing and farming, contribute billions of dollars to the regional economy. They also provide habitats for many iconic Northwest species, such as greater sage grouse, pronghorn, and elk. The biggest challenges shrubland and rangeland managers face are climate change, invasive plant species, wildfire, and land use change.

Topic 2 Key Science Opportunities to which proposals should respond:

1. Identify thresholds and trigger points for when shrubland species or habitats may become at-risk as a result of climate change and other landscape stressors.
2. Identify and evaluate management treatments, such as assisted migration, that could help establish shrubland plant and animal species and communities that could persist under future climate conditions.
3. Address uncertainty and disagreement among climate envelope models to increase their effectiveness in shrubland ecosystem management and decision-making.
4. Compile and synthesize case studies in which future climate scenarios have been explicitly incorporated into shrubland management decisions and actions. The overarching goal is to provide best practices for managers and help answer the question, "What does successful climate adaptation look like in shrubland ecosystems?"

Topic 3. Managing Climate-driven, Post-fire Ecological Transformation

Climate-driven, post-fire vegetation transitions are occurring in forest and shrubland ecosystems in the Northwest, especially at lower elevations east of the Cascade Range. The effectiveness of strategies for managing post-fire

vegetation transitions remains largely untested and will vary depending on where or when action is taken.

Topic 3 Key Science Opportunities to which proposals should respond:

1. Increase understanding of where and when post-fire ecosystem transitions are expected to occur and the potential consequences for ecological functioning and ecosystem services at scales relevant to resource managers. This may include:
 - a. developing predictions of future fire properties or post-fire regeneration
 - b. identifying or predicting novel interactions between or among species and processes that could influence post-fire vegetation transitions
 - c. assessing the adaptive capacity of existing plant and animal species and communities to future fire and climate conditions
2. Evaluate the effectiveness of current and emerging strategies for managing climate-driven, post-fire vegetation transitions, with careful consideration of how “effectiveness” should be measured and how this may vary across space and time.
3. Assess potential strategies for directing post-fire vegetation transitions and develop a better understanding of the tradeoffs between efforts to resist, accept or direct vegetation transitions (see the [RAD framework](#) for more information on this topic).

Cross-cutting themes and activities to be considered and addressed in all SOIs and invited proposals:

- Advance diversity, equity, and inclusion (DEI) best principles in the climate change adaptation sciences and workforce
- Address the human dimensions of climate-adapted natural and cultural resource management, which may include (but are not limited to) economic or sociological analyses of climate adaptation options or impacts
- Engage in meaningful and sustained outreach efforts with management partners and stakeholders and develop user-friendly products to translate science or tools to actionability (akin to climate adaptation extension services)
- Build ongoing capacity for climate-adapted natural and cultural resource management through the development of training modules targeted for managers that could be incorporated into a larger body of NW CASC training resources
- Focus on species of special interest to federal, state, and tribal management agencies (e.g., federally listed, petitioned or proposed, state species of greatest conservation need, etc.)

Northwest CASC Additional Evaluation Criteria

All SOIs and Proposals will be evaluated against the criteria detailed under the [Application Process & Evaluation Criteria](#) section, above. Each regional CASC can choose to give extra weight to an existing criterion listed in the section above or add an additional evaluation criterion to ensure that all weights add to 100%. For the NW CASC, the specific additional evaluation criteria are as follows:

SOI Evaluation

The NW CASC applies the remaining 5% SOI evaluation weighting to the following criterion:

The degree to which SOIs address one or more of the cross-cutting themes of interest, listed above.

Full Proposal Evaluation

The NW CASC applies the remaining 10% evaluation weighting to the following criterion:

The degree to which proposals address one or more of the cross-cutting themes of interest, listed above.

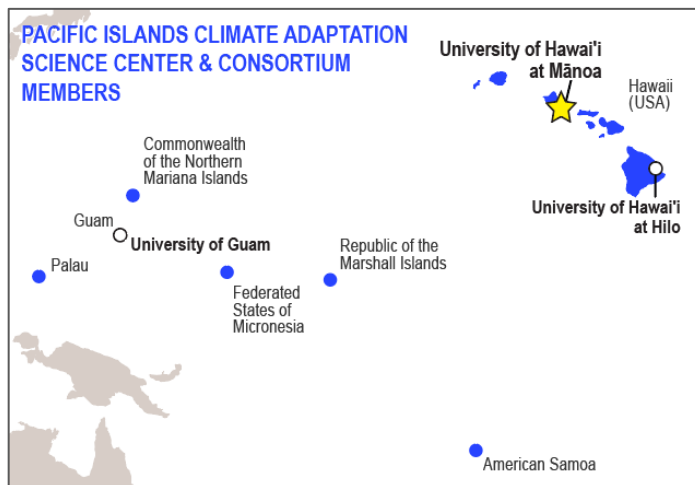
NAVIGATION

Back To: [Funding Opportunity Details & Schedule](#)

Back To: [Application Process & Evaluation Criteria](#)

Back To: [Science Priorities & Details for Each CASC](#)

Pacific Islands CASC



Eligible Applicants

Only individuals affiliated with or employed by the following eligible organizations may submit proposals in response to this funding opportunity as the lead Principal Research Investigator:

1. *The Pacific Islands - CASC Consortium*:
 - *University of Hawai'i - Mānoa (UHM)*
 - *University of Hawai'i - Hilo (UHH)*
 - *University of Guam (UoG)*
2. USGS centers, field stations, laboratories, Cooperative Research Units, etc.

Each proposal must have a **Principal Investigator (PI)** from an eligible organization. Parties from other organizations (Federal, State, Tribal, or other) may serve as Co-PIs and receive funds via subawards from an eligible organization.

If you do not have a contact who is an eligible applicant, please contact PI CASC for assistance in identifying potential partners.

Estimated Available Funds	Up to \$450,000 may be available to fund FY22 projects that support PI CASC research priorities (detailed below).
Project Funding Amounts	The PI CASC intends to fund between 5 and 8 projects through this RFP. In contrast to previous PI CASC funding opportunities, this RFP seeks to fund smaller individual awards, with a desired emphasis on new, emerging, or rapidly evolving climate adaptation issues. Individual project awards are not expected to exceed \$200,000 for the life of the project (inclusive of all indirect and overhead costs as applied by all organizations involved, including any necessary pass-through host costs).
Project Duration	Generally, not to exceed 36 months (longer projects may be considered at the discretion of the PI CASC Federal Director).

PI CASC USGS Contacts	<p><i>For questions regarding this solicitation, PI CASC priorities, the general <u>CASC Science Approach</u>, collaborative opportunities, and the RFP process, please contact:</i></p> <ul style="list-style-type: none"> • Mari-Vaughn Johnson, Director, Pacific Islands CASC, mvjohnson@usgs.gov, 808-208-3142 • Heather Kerkering, Science Coordinator, hkerkering@usgs.gov, 808-219-8597
University Contacts	<p><i>Attention Non-USGS PIs: for questions regarding policies, budgets, and proactive discussions regarding host university pass-through costs, please contact:</i></p> <p><i>University of Hawai'i, Mānoa:</i></p> <ul style="list-style-type: none"> • Darren Lerner, PI CASC Consortium Director, lerner@hawaii.edu, 808-956-7031 • Brad Romine, PI CASC Consortium Deputy Director, romine@hawaii.edu, 808-956-3013 <p><i>University of Hawai'i, Hilo:</i></p> <ul style="list-style-type: none"> • Jim Beets, PI CASC UHH Partner, beets@hawaii.edu, 808-932-7600 <p><i>University of Guam:</i></p> <ul style="list-style-type: none"> • Romina King, PI CASC UoG Partner, roking@triton.uog.edu, 671-735-2874
Informational Webinar	<p>The National CASC Network will host a general informational webinar on this solicitation on February 16, 2021. This webinar will be recorded and made available for online viewing. Please see page 3 for details.</p> <p>Additionally, PI CASC will host an informational webinar/question and answer session pertaining to the region's specific priorities and processes. This webinar will be recorded and made available for online viewing. PI CASC staff are also available to address questions and concerns outside of these venues.</p> <p>Date and Time: Wednesday, February 17, 2021: 2:00 - 3:00 PM HST (please adjust accordingly to your time zone)</p> <p>Connect via Zoom or phone</p> <p><u>Zoom option:</u> https://hawaii.zoom.us/j/94448985103?pwd=aVlWWTlTVzJRVcTnMUxpWVNLMmo5UT09</p> <p>Meeting ID: 944 4898 5103 Passcode: picasc</p> <p><u>Phone option:</u> +1 669 900 6833 US (San Jose)</p>

	833 293 0962 Guam Toll-free 833 864 4727 Northern Mariana Islands Toll-free
Pacific Islands CASC RFPManager Submission Portal	https://sciencebase.usgs.gov/rfp/#/14795/Pacific Islands CASC 2022 Funding Opportunity
About the Pacific Islands CASC	http://PI_CASC.soest.hawaii.edu/

Background:

The U.S. Department of the Interior (DOI) established the Pacific Islands Climate Adaptation Science Center (PI CASC) in October 2011 to address challenges around climate change adaptation in the Pacific Islands region. The region encompasses the Hawaiian islands and the U.S. Affiliated Pacific Islands (USAPI), including the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, the Republics of the Marshall Islands and Palau, and the Territories of American Samoa and Guam. PI CASC is a Consortium between the U.S. Geological Survey, the University of Hawai'i at Mānoa, the University of Hawai'i at Hilo, and the University of Guam. Prospective PIs from a consortium partner organization should discuss their proposal with their organization's contact (see above).

PI CASC's mission is to provide essential scientific knowledge and science-informed tools to benefit partners committed to building regional scientific capacity to address climate change adaptation. Further, PI CASC seeks to support efforts to apply science-informed climate change adaptation planning and management to natural and cultural resources, with consideration of place-based interests and knowledge. In keeping with its mission, PI CASC research priorities are tied to the needs of natural and cultural resource managers in the PI region.

Pacific Islands CASC Research Priorities

For this funding opportunity, PI CASC seeks proposals that address new, emerging, or rapidly evolving challenges related to climate change, in the context of one or more of the Priority Research Areas detailed below. In particular, PI CASC welcomes consideration of proposals that explore potential solutions to climate change adaptation related challenges or address issues not considered in previously funded PI CASC work (see: <https://cascprojects.org/#/casc/pacific-islands>).

FY22: Focus on the United States Affiliated Pacific Islands, to include, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, the Republics of the Marshall Islands and Palau, and the Territories of American Samoa and Guam.

Priority Research Areas:

1. **Managing novel systems.** Climate change is transforming ecosystems, including changing ecosystem composition, structure, function, and footprint. Natural and cultural resource management approaches to climate adaptation tend to prioritize perpetuating current systems and associated benefits, but there may be

instances where this approach is ineffective. The PI CASC seeks proposals that explore decision and risk assessment frameworks and support tools to inform best management options under ecological transformation and climate-influenced extreme events. As an example, the “RAD Framework” enables managers to prioritize situations where they should focus on **R**esistance to climate change transformation, but also when and where transformation is inevitable and likely should be **A**ccepted or can be **D**irected – toward a different, but amenable, ecological state with acceptable levels of ecosystem services. It is critically important that proposals in this research area demonstrate inclusion of manager insights, interests, and concerns in the development of the proposal, as a means of ensuring applicability of outcomes to climate change adaptation efforts.

2. **Agroforestry.** Throughout the Pacific, climate change is altering ecosystem services related to agroforestry (the intentional integration of trees and shrubs into crop and animal farming systems to create environmental, economic, and social benefits). Resource managers and stewards of agroforestry have expressed interest in expanding knowledge and science-informed decision capacities in a place-based context to understand how predicted and observed climate change impacts may alter ecosystems that support and interface with agroforestry systems, and to identify mechanisms that maintain ecosystem services that enable sustainable one health and food security approaches to natural and cultural resource management.

3. **Fresh water security solutions,** with emphasis on ecosystem services and freshwater ecosystems. Resource managers responsible for water and related land use decisions require usable assessments of current freshwater dynamics alongside projections of anticipated climate change impacts on freshwater systems. This will allow them to better understand the implications of uncertainty associated with projections and to inform science-based management decisions related to water supply, water quality, and extreme drought and flood events. In particular, tools that enable managers to consider trade-offs and socio-ecological implications of allocating freshwater to different societal sectors and environmental concerns could help decision makers develop sustainable solutions to freshwater management.

4. **Biosecurity** is a strategic and integrated approach to analyzing and managing relevant risks to human health and ecological securities, wildlife, plant life, soil health, agroecosystems, and associated risks for the environment. It is based on recognition of critical linkages between sectors and the potential for hazards to move within and between sectors, with system-wide consequences. Proposals in this research area should tie biosecurity related concerns to capacity to inform sustainable natural and cultural resource management in light of anticipated climate change. Proposals of pilot projects exploring unconventional, but plausible connections that could improve resource management decisions will be considered. Ultimately the aim is to enhance national ability to protect human health alongside natural and cultural resources.

5. **Island to island technology transfer.** Technology transfer plays an increasingly critical role in the effective regional (and global) response to climate change challenges. Amassing place based and site-specific data at every location vulnerable to climate change is neither financially, nor temporally feasible. Technology transfer may encompass sharing lessons learned in stakeholder engagement; development of training modules for data collection or knowledge dissemination; sharing of scientific approaches, management tools, extant bodies of knowledge, and other models beneficial to building sustainable partnerships to empower regional capacity and expertise while addressing climate change adaptation challenges. Proposals may improve our understanding of how and why managers move from climate adaptation planning to on-the-ground action, including potential evaluation of these critical steps from science to planning to practice. It is crucial that proposals in this research area embody interests, concerns, and buy-in from all parties involved in the technology exchange, even if the

relationship is being explored as a model for other tech transfer activities.

Suggestions to Consider during Proposal Development (not a complete list; omission of these ideas does not negate equal consideration of a proposal):

- Consider creating mentor-mentee relationships, building opportunities to develop capacity for students, faculty, managers, researchers, and others involved in natural and cultural resource management in the USAPI.
- PI CASC endeavors for climate change adaptation concerns to be considered in all science-based solutions in the region. To be considered, the Principal Investigator should identify and propose a previously unfunded climate change adaptation aspect to augment an ongoing project. Climate change adaptation outcomes should also be identified.
- Consider proposing a pilot study.
- In addition to the research priorities listed above, PI CASC is interested in proposals that advance diversity, equity, and inclusion.

Pacific Islands CASC Additional Evaluation Criteria

All SOIs and Proposals will be evaluated against the criteria detailed under the [Application Process & Evaluation Criteria](#) section, above. Each regional CASC can choose to give extra weight to an existing criterion listed in the section above or add an additional evaluation criterion to ensure that all weights add to 100%. For the PI CASC, the specific additional evaluation criteria are listed below.

SOI Evaluation

PI CASC applies the remaining 5% SOI evaluation weighting to the following criterion:

Actionable Science Outcome: Description of actionable outcomes, how and who will use the outcomes/products, with a particular emphasis on natural and resource cultural managers. Consideration of cross-sectoral implications is welcome. ([See Appendix F](#))

Full Proposal Evaluation

PI CASC applies the remaining 10% evaluation weighting equally to the following criterion:

(5%) Increasing Local/Regional Climate Change Adaptation Capacity: Proposals that promote resiliency in the workforce across the USAPI are encouraged, as are proposals that explicitly increase local/regional science-based management capacity in the USAPI.

(5%) Potential broader collaboration, increasing scope: Project establishes collaborations beyond local scales and leverages expertise across CASCs, and other regional or national organizations to help synthesize implications of climate impact challenges and their potential solutions. Projects may build upon existing work and capacity or complement/leverage related climate adaptation research underway in the Pacific Islands and/or in other regions. In all cases, engaging with resource managers from DOI bureaus (e.g., National Park Service, US Fish and Wildlife Service, Office of Insular Affairs) or State natural resources agencies, or Pacific island natural resources agencies is highly encouraged. This criterion does not negate the need to provide local and/or regional support and context to the proposal.

Additional Evaluation Considerations:

PI CASC has consistently experienced a very competitive RFP process. Some excellent awards may not be funded due to considerations beyond the applicant's control, including funding availability. In this RFP, PI CASC attempts to

highlight research priorities identified by regional partners that will move climate change adaptation forward. In addition to consideration of the merit-based attributes detailed in the evaluation criteria, funding decisions will also attempt to balance the overall portfolio of science activities at the CASC with respect to the following: geographic distribution, project cost and duration, applicant type (USGS or consortium), subject matter and focus, need for scientific continuity versus establishing new work, funds management, and related factors. It is possible the PI CASC will select more than one project for funding per priority topic. There is no guarantee the PI CASC will select a project from all priority topics.

Additional Information:

Funded project PIs will be required to participate in a semi-annual phone check-in, in addition to completing standard annual and end of project reporting requirements.

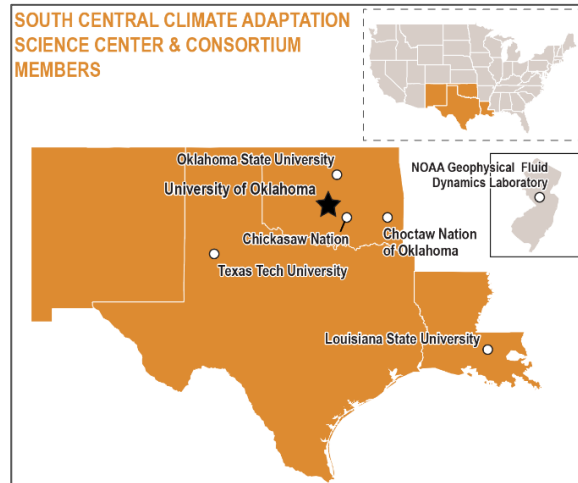
NAVIGATION

Back To: [Funding Opportunity Details & Schedule](#)

Back To: [Application Process & Evaluation Criteria](#)

Back To: [Science Priorities & Details for Each CASC](#)

South Central CASC



Eligible Applicants

Only individuals from the following eligible organizations may submit proposals as the lead Principal Research Investigator in response to this Funding Opportunity:

1. The South Central (SC) CASC Consortium:
 - University of Oklahoma and consortium partners:
 - Texas Tech University
 - Louisiana State University
 - Chickasaw Nation
 - Choctaw Nation of Oklahoma
 - Oklahoma State University
 - University of New Mexico
2. USGS centers, field stations, laboratories, Cooperative Research Units, etc.

Each proposal must have a Principal Investigator (PI) from an eligible organization. Parties from other organizations (Federal, State, Tribal, or other) can serve as Co-PIs and receive funds via subaward from an eligible organization.

Estimated Available Funds	Up to \$1,000,000 may be available to fund FY22 projects that support SC CASC research priorities (detailed below).
Project Funding Amounts	The SC CASC intends to fund 3-10 projects through this RFP. The SC CASC expects to fund one or two projects for up to \$450,000 for a total of three years ; and the remainder of the funded projects will be up to \$300,000 and for a total of two years . Total funding levels are inclusive of all indirect costs and overhead charges applied by all institutions involved.
Project Duration	Generally, not to exceed 36 months (longer projects may be considered at the discretion of the SC CASC Director).

SC CASC USGS Contacts	<p><i>For questions regarding this solicitation, SC CASC priorities, the general CASC Science Approach, and the RFP process, please contact:</i> Michael Langston, Deputy Federal Director, South Central CASC, m-langston@usgs.gov, (405) 290-8348</p> <p><i>Questions regarding collaborative opportunities can be directed to SC CASC Research Coordinator:</i> Kristen Donahue, Biologist, kdonahue@usgs.gov</p>
University of Oklahoma Contacts	<p><i>For Non-USGS PIs and questions regarding University of Oklahoma policies, budgets, and proactive discussions regarding host university pass-through costs, please contact:</i> Emma Kuster, University Assistant Director, emmakuster@ou.edu</p>
Informational Webinars	<p>The National CASC Network will host a general informational webinar on this solicitation on February 16, 2021. Please see Page 3 for details.</p> <p>On Thursday, February 25, 2021 at 1:00 PM CST and Wednesday, March 3, 2021 at 11:00 AM CST, the South Central CASC will hold informational webinars regarding this RFP. Those wishing further clarification of the guidance contained in this document are encouraged to join in with their questions.</p> <p>Zoom link for Feb. 25: https://us02web.zoom.us/j/88161999452?pwd=eUpXY29CUkZYVVhTMGNwM05Cbm0xdz09 Password: 405746</p> <p>Zoom link for March 3: https://us02web.zoom.us/j/85210360337?pwd=RG5QRjBaWUtIbE4wWGwvRjUwWTBUQT09 Password: 406576</p>
South Central CASC RFP Manager Submission Portal	<p>https://sciencebase.usgs.gov/rfp/#/14987/South_Central_CASC_2022_Funding_Opportunity</p>
About the South Central CASC	<p>http://southcentralclimate.org/</p>

Background:

The U.S. Department of the Interior (DOI) established the South Central Climate Adaptation Science Center in 2012 to address the challenges presented by climate change and variability in the south central United States. The SC CASC's mission is to provide essential scientific knowledge and tools that resource managers and other partners interested in land, water, wildlife, and cultural resources can use to anticipate, monitor, and adapt to a changing climate. The SC CASC operates using advice and guidance from a Stakeholder Advisory Committee (SAC). The south-central region consists of Oklahoma, New Mexico, Texas, and Louisiana. In keeping with its mission, the SC CASC identifies research

priorities that are tied closely to the needs of natural and cultural resource managers.

Proposals developed in response to this RFP should focus on developing knowledge that can be directly applied to specific management challenges, either locally or broadly across the landscape. Each proposed project should target one or more issues faced by stakeholders, generate knowledge to address that challenge, and communicate the results to stakeholders in actionable ways. Actionable science is a central focus of the CASC network, as it emphasizes use-driven research that seeks to engage decision-makers in iterative, two-way dialogues throughout the duration of a project; we encourage submission of proposals that embrace this approach. The FY22 research priorities are described in the next section.

Additional Information:

To be competitive, proposals must include clear evidence of researcher engagement with decision-makers from relevant federal, state, tribal, or other agencies, and/or non-governmental entities. Prospective PIs are advised to undertake deliberate planning of stakeholder engagement, which should be reflected in clear plans in the proposal for communication, engagement, and collaboration between the researchers and resource managers comprising the team. Research teams should plan and budget for processes and products that help meet stakeholder needs, in addition to peer-reviewed publications.

South Central CASC Research Priorities

For this funding opportunity, the South Central CASC seeks proposed projects that respond to one or more of the following priorities, listed below.

The South Central CASC places a high priority on funding actionable science. Proposals that are developed and carried out in conjunction and/or collaboration with end users of the information developed will be judged more favorably. The South Central CASC works with a stakeholder advisory committee that consists of Federal, State and Tribal agency representatives (see the [Members List](#)) to develop an annual list of research priorities. This committee also participates in the proposal selection process by recommending projects for funding to the Deputy Director. The Deputy Director considers these recommendations, peer reviews, the geographic distribution, distribution among agencies, Department of Interior and USGS leadership's directives, proposers' past performance, and the available funding when deciding which projects to fund.

For FY 2022, the SC CASC identifies five research priorities as outlined below. Projects that do not correspond closely to these priorities will be considered but must make a strong case for their value to resource management agencies.

The first two priorities seek vulnerability assessments. Once the statements of interest have been reviewed and full proposals invited, the successful research teams will work closely with subcommittees of the above-mentioned stakeholder advisory committee in the design and execution of these projects

Cultural Resources

Conduct a climate vulnerability assessment on the impact of sea level rise on cultural resources relevant to Federal, State, and Tribal agencies along the Gulf of Mexico Coast of Louisiana and Texas. This assessment should include (1) a summary and synthesis of the literature, (2) identification of knowledge gaps, (3) recommendations for next steps to lead to significant advancement of our understanding of these impacts, and (4) delineating appropriate adaptation measures.

Gulf Coast

Conduct a vulnerability assessment on the impacts of climate change on marshes and sand dunes of the Gulf Coast of Louisiana and Texas. This assessment should include (1) a summary and synthesis of the literature, (2) identification of knowledge gaps, (3) recommendations for next steps to lead to significant advancement of our understanding of these impacts, and (4) delineating appropriate adaptation measures.

Rio Grande Basin

In the Rio Grande Basin, increase our understanding of ecological transformation in forests and riparian habitat (including characterizing current and future trends and impacts) and identify viable pathways and best practices for managing and directing these changes.

Agroecosystems

Improve our understanding of the risks and impacts of extreme events (e.g. droughts and floods) on rangelands/agroecosystems and the fish and wildlife that use them and translate this understanding into management recommendations and decision support for managers.

Decision Making

Develop and/or evaluate tools and techniques to assist resource managers in climate-related decision making under uncertainty.

South Central CASC Additional Evaluation Criteria

All SOIs and Proposals will be evaluated against the criteria detailed under the [Application Process & Evaluation Criteria](#) section, above. Each regional CASC can choose to give extra weight to an existing criterion listed in the section above or add an additional evaluation criterion to ensure that all weights add to 100%. For the SC CASC, the specific additional evaluation criteria are listed below.

SOI Evaluation

The SC CASC applies the remaining 5% SOI evaluation weighting to the following existing criterion:

Coordination with partners and engagement of stakeholders for creation of actionable science

Full Proposal Evaluation

The SC CASC applies the remaining 10% evaluation weighting to the following existing criterion:

Coordination with partners and engagement of stakeholders for creation of actionable science

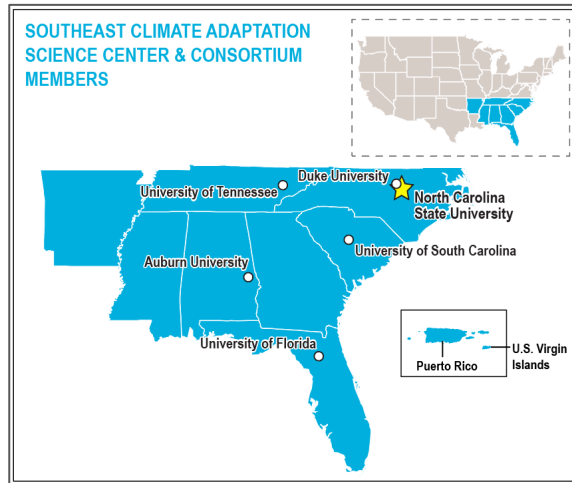
NAVIGATION

Back To: [Funding Opportunity Details & Schedule](#)

Back To: [Application Process & Evaluation Criteria](#)

Back To: [Science Priorities & Details for Each CASC](#)

Southeast CASC



Eligible Applicants

Only individuals from the following eligible organizations may submit proposals as the lead Principal Research Investigator in response to this Funding Opportunity:

1. The SE CASC Consortium:
 - North Carolina State University (host) and consortium partners:
 - Auburn University
 - Duke University
 - University of Florida
 - University of South Carolina
 - University of Tennessee - Knoxville
2. USGS centers, field stations, laboratories, Cooperative Research Units, etc.

Each proposal must have a Principal Investigator (PI) from an eligible organization. Parties from other organizations (Federal, State, Tribal, or other) can serve as Co-PIs and receive funds via subaward from an eligible organization.

Estimated Available Funds	Up to \$1,000,000 may be available to fund FY22 projects that support SE CASC research priorities (detailed below).
Project Funding Amounts	The SE CASC intends to fund 5-8 projects through this RFP. Individual project awards are not expected to exceed \$400,000 (inclusive of all indirect and overhead costs as applied by all organizations involved, including any necessary pass-through host costs) for the life of the project.
Project Duration	Generally, not to exceed 24 months (longer projects may be considered at the discretion of the SE CASC Director).
SE CASC USGS Contacts	<i>For questions regarding this solicitation, SE CASC priorities, the general CASC Science Approach, and the RFP process, please contact:</i>

	Ryan Boyles, Deputy Director, Southeast CASC, rboyles@usgs.gov , 919-513-2816
NC State University Contacts	<i>For Non-USGS PIs and questions regarding NC State University policies, budgets, and proactive discussions regarding host university pass-through costs, please contact:</i> Cari Furiness, SE CASC Program Manager, cari_furiness@ncsu.edu
Informational Webinar	The National CASC Network will host a general informational webinar on this solicitation on February 16, 2021. Please see Page 3 for details. Additionally, the SE CASC will host an informational webinar / question and answer session pertaining to the region's specific priorities and processes. This webinar will be recorded and made available for online viewing. Date and Time: Thursday, February 18, 2021, 11:00 AM Eastern Time Link: https://ncsu.zoom.us/j/95426499002
Southeast CASC RFPManager Submission Portal	https://sciencebase.usgs.gov/rfp/#/14781/Southeast_CASC_2022_Funding_Opportunity
About the Southeast CASC	http://secasc.ncsu.edu/

Background:

The U.S. Department of the Interior (DOI) established the SE CASC in 2010 to address the challenges presented by climate and land use change in the Southeastern United States. SE CASC's mission is to develop and deliver scientific knowledge and tools needed to help fish, wildlife, and ecosystems adapt to a changing climate. SE CASC operates using advice and guidance from a Stakeholder Advisory Committee. SE CASC broad scientific priorities and principles of operation are described in a [2018 Memorandum](#).

SE CASC University Consortium Leads:

<i>Institution</i>	<i>Name</i>	<i>Email</i>
NC State University (host)	Derek Aday	ddaday@ncsu.edu
Auburn University	Karen McNeal	ksm0041@auburn.edu
Duke University	Lydia Olander	lydia.olander@duke.edu
University of Florida	Wendy Graham	wgraham@ufl.edu
University of South Carolina	John Kupfer	kupfer@mailbox.sc.edu
University of Tennessee – Knoxville	Paul Armsworth	p.armsworth@utk.edu

Southeast CASC Research Priorities

For this funding opportunity, the SE CASC seeks proposed projects that respond to one or more of the following priorities, listed below.

1. **Evaluating the effectiveness of adaptation actions.** We are interested in projects that test the effectiveness of climate adaptation actions, on pilot or regional scales, and produce information useful to natural resource managers to inform adaptation strategies and meet their management objectives. Research project examples include, but are not limited to: 1) demonstration/field testing of adaptation alternatives, 2) modeling studies to simulate and test the efficacy of alternative actions, and/or 3) cost-benefit analyses of using additional climate change information to increased resilience and/or lessened a climate impact. Projects that demonstrate transferability to other areas will be prioritized.
2. **Ecohydrology and impacts to freshwater and tidal zone aquatic species and habitat.** USGS has developed projections of daily hydrological conditions across a range of land use and climate change scenarios (details: <https://secasc.ncsu.edu/science/water-availability/>). We are interested in projects that use these projections to explore the following:
 - a. **Impacts to freshwater and estuarine habitat and species.** How might projected changes to hydrological conditions (including high flow/flooding, low flow/drought, shifts in hydroperiod, and temperature) impact these ecosystems?
 - b. **Synthesis of regional freshwater risks.** How might risk from changes to hydrological flow regimes and temperature vary across the southeastern US, and which locations might be at greater risk to changing climate or might be more resilient and serve as freshwater climate refugia?
 - c. **Access, use, interpretation of hydrological projections.** We are interested in projects to develop, prototype, and test visualization of climate-driven hydrological projections to effectively convey the range of possible hydrological futures relevant to ecosystems in the Southeast US. Proposals should include strategy to test effectiveness of visualizations for risk and data interpretation by natural resources managers.
3. **Targeted Ecosystems:**
 - a. **Shallow island habitat restoration.** We are interested in projects that identify the risks of "super-tide" events under rising sea level over the next 20 years to inform habitat restoration for nesting coastal birds. Habitat that is not constructed at sufficiently high elevations is at risk from inundation that washes away nests while habitat constructed too high is at risk for occupation by predatory mammals. We are looking for proposals that can explore the optimal elevations across the shallow slope southeastern coastal zone for habitat maintenance and restoration that minimizes the risk of overwash from tidal events.
 - b. **Cave ecosystems.** We are interested in projects that identify how changing climate will affect the structure and viability of terrestrial cave ecosystems, including species that rely on these habitats.
 - c. **Forest ecosystems.** We are interested in projects that characterize how climate may impact forest ecosystem structure for migratory bird habitat.

Cross-Cutting Themes of Interest:

- Advancing diversity, equity, and inclusion (DEI) best principles in the climate change adaptation sciences and workforce
- Supporting capacity building in southeastern Tribal nations, support Tribal-led research or direct participation in the research, address issues of shared governance, and/or provide products and services focused on Tribal climate adaptation priorities
- Addressing human dimensions of climate-adapted natural and cultural resource management, which may include (but are not limited to) economic or sociological analyses of climate adaptation options or impacts
- Developing and implementing innovative outreach efforts and products to translate science or tools to actionability
- Engaging in meaningful and sustained dialog with management partners and stakeholders throughout the entire cycle of research to ensure actionable science
- Addressing Regional Species of Greatest Conservation Need (SGCN), listed species or those under consideration for the Federal Endangered Species Act; and/or fish, wildlife, and habitats of economic and/or cultural importance

Additional Information:

Proposers working with Tribal Nations or Tribal organizations are strongly encouraged to contact the NE & SE CASC Tribal Resilience Liaison, Casey Thornbrugh (cthornbrugh@usetinc.org) prior to submitting their Statements of Interest. Proposers should be explicit in how the project will engage Tribal partners and ensure Tribal sovereign management of resources. Topics should be important to and identified by the Tribal Nation/Tribal organization and address management of fish, wildlife, habitat, or cultural resources under a changing climate.

Southeast CASC Additional Evaluation Criteria

All SOIs and Proposals will be evaluated against the criteria detailed under the [Application Process & Evaluation Criteria](#) section, above. Each regional CASC can choose to give extra weight to an existing criterion listed in the section above or add an additional evaluation criterion to ensure that all weights add to 100%. For the SE CASC, the specific additional evaluation criteria are listed below.

SOI Evaluation

The SE CASC applies the remaining 5% SOI evaluation weighting to the following criterion:

Total Cost in proportion to project impact

Full Proposal Evaluation

The SE CASC applies the remaining 10% evaluation weighting to the following criterion:

Budget and work plan

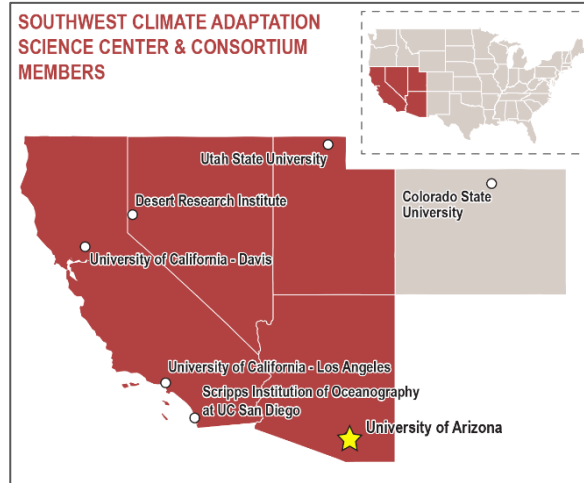
NAVIGATION

Back To: [Funding Opportunity Details & Schedule](#)

Back To: [Application Process & Evaluation Criteria](#)

Back To: [Science Priorities & Details for Each CASC](#)

Southwest CASC



Eligible Applicants

Only individuals from the following eligible organizations may submit proposals as the lead Principal Research Investigator in response to this Funding Opportunity:

1. The SW CASC Consortium:
 - University of Arizona and consortium partners:
 - University of Utah
 - University of California Davis
 - University of California Los Angeles
 - Colorado State University
 - Desert Research Institute
 - Scripps Institute of Oceanography at UC San Diego
2. USGS centers, field stations, laboratories, Cooperative Research Units, etc.

Each proposal must have a Principal Investigator (PI) from an eligible organization. Parties from other organizations (Federal, State, Tribal, or other) can serve as Co-PIs and receive funds via subaward from an eligible organization.

Estimated Available Funds	Up to \$1,000,000 may be available to fund FY22 projects that support SW CASC research priorities (detailed below).
Project Funding Amounts	The SW CASC intends to fund 5-8 projects through this RFP. Individual project awards are not expected to exceed \$350,000 (inclusive of all indirect and overhead costs as applied by all organizations involved, including any necessary pass-through host costs) for the life of the project.

Project Duration	Generally, not to exceed 24 months (longer projects may be considered at the discretion of the SW CASC Director).
SW CASC USGS Contacts	<p><i>For questions regarding this solicitation, SW CASC priorities, the general CASC Science Approach, and the RFP process, please contact:</i> Carolyn Enquist, Deputy Director, SW CASC, cenquist@usgs.gov</p> <p><i>Questions regarding collaborative opportunities can be directed to:</i> Molly Hunter, Research Coordinator, SW CASC, mollyhunter@arizona.edu</p>
University of Arizona Contacts	<p><i>For Non-USGS PIs and questions regarding University of Arizona policies, budgets, and proactive discussions regarding host university pass-through costs, please contact:</i> Anita Govert, Assistant Director, agovert@arizona.edu</p>
Informational Webinar	<p>The National CASC Network will host a general informational webinar on this solicitation on February 16, 2021. Please see Page 3 for details.</p> <p>Additionally, the SW CASC will host an informational webinar / question and answer session pertaining to the region’s specific priorities and processes. This webinar may be recorded and made available for online viewing.</p> <p>Date and Time: Friday, February 19, 2021, 12:00 PM (NOON) MST</p> <p>Use the following link to register for the webinar https://arizona.zoom.us/meeting/register/tZcudeCrqTMqE9fqEh9HcsmprUdOCOEeHKjP</p>
Southwest CASC RFPManager Submission Portal	https://sciencebase.usgs.gov/rfp/#/14876/Southwest_CASC_2022_Funding_Opportunity
About the Southwest CASC	https://www.swcasc.arizona.edu/

Background:

The Southwest Climate Adaptation Science Center (SW CASC) is a collaborative federal-university partnership between the U.S. Geological Survey and seven academic institutions across Arizona, California, Colorado, Nevada, and Utah (see table below). The mission of the SW CASC is to work with natural and cultural resource managers to develop and deliver scientific information and techniques to anticipate, monitor, and adapt to climate change in the southwestern United States.

SW CASC research consortium:

Institution	Name	Email
University of California Los Angeles	Richard Ambrose Glen MacDonald	rambrose@ucla.edu macdonal@geog.ucla.edu
Utah State University	Michelle Baker Nancy Huntly	michelle.baker@usu.edu nancy.huntly@usu.edu
Desert Research Institute	Tim Brown Tamara Wall	tim.brown@dri.edu tamara.wall@dri.edu
Scripps Institute of Oceanography at UC San Diego	Dan Cayan Alexander Gershunov	dcayan@ucsd.edu agershunov@ucsd.edu
University of Arizona	Gregg Garfin Alison Meadow	gmgarfin@arizona.edu meadow@arizona.edu
Colorado State University	Brad Udall	bradley.udall@colostate.edu
University of California Davis	Beth Rose Middleton Mark Schwartz	brmiddleton@ucdavis.edu mwshwartz@ucdavis.edu

The U.S. Department of the Interior (DOI) established the Southwest Climate Adaptation Science Center in 2012 to address the challenges presented by climate change and variability in the Southwest United States. The SW CASC’s mission is to provide essential scientific knowledge and tools that resource managers and other partners interested in land, water, wildlife, and cultural resources can use to anticipate, monitor, and adapt to a changing climate.

Proposals developed in response to this RFP should focus on developing knowledge that can be directly applied to specific management challenges, either locally or broadly across the landscape. Each proposed project should target one or more issues faced by stakeholders, generate knowledge to address that challenge, and communicate the results to stakeholders in actionable ways. Actionable science is a central focus of the CASC network, as it emphasizes use-driven research that seeks to engage decision-makers in iterative, two-way dialogues throughout the duration of a project; we encourage submission of proposals that embrace this approach. The FY22 research priorities are described in the next section.

Additional Information:

To be competitive, proposals must include clear evidence of researcher engagement with decision-makers from relevant federal, state, tribal, or other agencies, and/or non-governmental entities. Prospective PIs are advised to undertake deliberate planning of stakeholder engagement, which should be reflected in clear plans in the proposal for communication, engagement, and collaboration between the researchers and resource managers comprising the team. Research teams should plan and budget for processes and products that help meet stakeholder needs, in addition to peer-reviewed publications.

Southwest CASC Research Priorities

Overview

In keeping with its mission, the SW CASC identifies research priorities that are tied closely to the needs of natural resource managers. For FY 2022, the SW CASC identifies four research priorities below. Proposals should focus on one or more of these priorities. PIs are encouraged to include 'next-generation' scientists (graduate students and post-docs) in their proposals and consider how they might connect with and provide opportunities for the [SW CASC Natural Resource Workforce Development \(NRWD\) Fellows](#) to contribute to the first year of their project. Potential exists for cross-cutting proposals addressing multiple priorities, old and new, and we particularly encourage proposals that effectively and convincingly speak to more than one priority.

Statements of Interest (SOIs) and proposals should indicate clearly which SW CASC priorities they intend to address.

1. Indigenous practices of ecosystem management and restoration in the context of climate change and adaptation.

Indigenous perspectives on the application of ecosystem management and restoration in the context of a changing climate are needed[1]. This includes traditional viewpoints and practices that could inform (1) the state of the science, policy, and practice on how climate change is currently affecting and projected to transform ecological processes; (2) how projected changes fit within the context of national patterns and trends; and (3) the implications of these changes for natural resource management and climate change adaptation efforts in the Southwest.

The SW CASC seeks proposals that incorporate indigenous perspectives and specifically consider issues such as:

- The cultural importance of species and other resources in the context of climate adaptation, and/or
- Improved understanding of indigenous methods, melding of indigenous and western practices, and what managers more generally can learn from indigenous practices
- Policy and other barriers to implementing Indigenous-led traditional methods across land jurisdictions and ecosystems.

Please note that all project proposals that fall within this category must adhere to the guidance put forth by Raine et al. (2017)[2].

2. Management implications of mega-disturbance events and ecological transformation.

Climate change is a contributing factor to changing fire regimes, including larger and more severe wildfires, longer wildfire seasons, and shortened fire return intervals. These changing fire regimes along with changing climate and interacting disturbances can lead to post-fire vegetation transformation (e.g., forest to non-forest, shrubland to invasive grassland), with profound implications for wildlife habitat, watershed processes, and other ecosystem processes and services. Research is needed to inform management decisions that reduce risk of catastrophic wildfire and to develop management strategies to resist, improve capacity for resilience, or facilitate post-fire ecosystem transitions and transformations.

The SW CASC seeks proposals that addresses one or more of the following research needs:

- Characterization of the vulnerability of ecosystems to post-fire vegetation transformation at scales relevant to management decisions, and the implications for critical ecosystem processes and services.
- Characterization of plausible future ecosystem scenarios under changing fire and climate regimes, at spatial and temporal scales relevant to management decisions.
- Assessment of commonly applied, or new and innovative approaches to managing post-fire landscapes that strategically resist, improve capacity for resilience, or facilitate post-fire ecosystem transformations to support critical ecosystem processes and services.
- Can the increased impacts from fires and climate change be slowed by using the current standards and practices (i.e., thinning, prescribed fire) but at greater scales? If increasing the scale is not enough, what additional methods and measures should inform management goals to reduce changes in ecosystem function and resilience?
- Development of approaches for linking vegetation-change models driven by altered climate and fire regimes to management decisions.
- Assessment of barriers to and strategies for increasing the pace and scale of resource-management actions that effectively address fire- and climate-induced ecosystem transitions and transformations.

3. Climate-informed management of natural resources in coastal, freshwater and riparian ecosystems to support effective climate adaptation

Given the multitude of changes currently happening across the Southwest Region spanning freshwater to estuarine to coastal/nearshore aquatic habitats, the SW CASC has an urgent need to better understand the climate-related research needs of stakeholders who manage or make decisions about species and aquatic habitats in this region. We are particularly interested in augmenting our understanding of the consequences of more frequent and higher intensity wildfires in aquatic ecosystems that can lead to significant degradation and loss of riparian and forest vegetation and transform the structure and function of streams, rivers, and estuaries.

The SW CASC seeks proposals that seek to address this research need within the context of the following questions:

- What are the management implications of and strategies for recovering from the consequences of catastrophic wildfire (e.g., sterilized streams, detrimental flash flooding, increased sedimentation rates, debris flows, etc.)?
- What are the management implications of and strategies for recovering from post-fire flash floods that drive the transformation of riffle and pool habitats into channelized gullies that, in turn, transfer ash, nutrients, debris, and sediment into downstream environments, including estuaries?
- What are the implications of and strategies for recovering from wildfires within coastal estuaries and salt marshes that remove bank-stabilizing vegetation, disrupt geomorphic processes, and impair habitat suitability for fish, nekton, and coastal birds?

4. Application of existing decision-support tools for climate adaptation (small grants)

While decision support tools are not a specific research topic, we seek the development of guidance for how managers and stakeholders effectively **navigate the growing web of decision support tools available to them**. Most

tools aim to help better integrate climate science into management decisions, but it is unclear if this is happening as intended.

The SW CASC seeks assessment and evaluation of existing tools and examples of where they are being effectively used. Projects should focus on suites of tools available within specific subject areas (e.g., fire management, aquatic species management) and consider the following:

- What can we learn from these examples?
- How can we increase their reach and ultimately, their efficacy, particularly in the context of climate adaptation?
- What are the barriers to use of decision support tools in management (e.g., lack of data, lack of expertise or training, inappropriate scale)?

Cross-Cutting Themes of Interest

- Advancing diversity, equity, and inclusion (DEI) best principles in the climate change adaptation sciences and workforce
- Addressing human dimensions of climate-adapted natural and cultural resource management, which may include (but are not limited to) economic or sociological analyses of climate adaptation options or impacts
- Improving our understanding of how and why managers move from climate adaptation planning to on-the-ground action, including potential evaluation of this critical step from science or planning to practice
- Developing and implementing innovative outreach efforts and products to translate science or tools to actionability akin to climate adaptation extension services, emphasizing taking knowledge from research and bringing it directly to resource managers
- Building ongoing capacity for climate-adapted natural and cultural resource management through the development of training modules targeted for managers that could be incorporated into a larger body of training resources
- Addressing potential intersections between climate and non-climate factors, such as urban expansion and activities, development, pollution, effects on wildlife, and transportation infrastructure

[1] Long, Jonathan W.; Lake, Frank K.; Goode, Ron W.; Burnette, Benrita Mae. 2020. How Traditional Tribal Perspectives Influence Ecosystem Restoration. *Ecopsychology*. 12(2): 1-12 (and references therein):

Many collaborative projects have embraced the broader concept of ecocultural restoration that considers humans to integral to the natural world. This perspective acknowledges that non-Indigenous colonial systems of management have disrupted ecosystems and social systems, and that restoration of ecosystems must consider the capacity of tribes to continue to sustain themselves as they did prior to colonization...While agency perspectives sometimes focus on recent conditions that can be readily quantified, traditional knowledge often affords a deeper retrospective view that can enhance restoration by describing system dynamics and conditions prior to ecosystem degradation.

[2] Raine, Stephanie C.; Schultz, Jennifer L.; Briggs, Eileen; Riggs, Patricia; Palmanteer-Holder, Nancy Lynn. 2017. Data as a Strategic Resource: Self-determination, Governance, and the Data Challenge for Indigenous Nations in the United States. *International Indigenous Policy Journal*. 8(2). DOI: 10.18584/iipj.2017.8.2.1

Southwest CASC Additional Evaluation Criteria

All SOIs and Proposals will be evaluated against the criteria detailed under the [Application Process & Evaluation Criteria](#) section, above. Each regional CASC can choose to give extra weight to an existing criterion listed in the section above or add an additional evaluation criterion to ensure that all weights add to 100%. For the SW CASC, the specific additional evaluation criteria are listed below.

SOI Evaluation

The SW CASC applies the remaining 5% SOI evaluation weighting to the following criterion:

The degree to which SOIs address one or more of the cross-cutting themes of interest, listed above.

Full Proposal Evaluation

The SW CASC applies the remaining 10% evaluation weighting to the following criterion:

The degree to which Proposals address one or more of the cross-cutting themes of interest, listed above.

NAVIGATION

Back To: [Funding Opportunity Details & Schedule](#)

Back To: [Application Process & Evaluation Criteria](#)

Back To: [Science Priorities & Details for Each CASC](#)

List of Appendices

APPENDIX A: Access to RFPManager.....	59
APPENDIX B: Format and Guidelines for Statements of Interest.....	60
APPENDIX C: Format and Guidelines for Invited Proposals.....	62
APPENDIX D: Guidelines for Plain Language Public Summaries.....	68
APPENDIX E: Budget Justification Worksheet.....	69
APPENDIX F: CASC Science Approach.....	82
APPENDIX G: Required Reporting for Funded Projects.....	83

APPENDIX A: Access to RFPManager

All Statements of Interest (SOI) and Invited Full Proposals should be submitted to RFPManager, the online CASC proposal management system. Each CASC region has its own submission page. **Please make sure you are submitting to the correct CASC region via the links below.**

Please log in to RFPManager at least 24 hours before you are ready to submit your application. New external (non-Department of the Interior) users will need to go through a new account approval process that can experience lag times up to 24 hours. Existing external (non-DOI) users should also log in early and can reset their password if needed. Please DO NOT wait until the submission due date to log in for the first time. **Submission deadlines will not be extended due to last minute login delays.**

CASC Region	Link to RFPManager
Alaska	https://sciencebase.usgs.gov/rfp/#/14979/Alaska_CASC_2022_Funding_Opportunity
Midwest	https://sciencebase.usgs.gov/rfp/#/14716/Midwest_CASC_2022_Funding_Opportunity
North Central	https://sciencebase.usgs.gov/rfp/#/14765/North_Central_CASC_2022_Funding_Opportunity
Northeast	https://sciencebase.usgs.gov/rfp/#/14731/Northeast_CASC_2022_Funding_Opportunity
Northwest	https://sciencebase.usgs.gov/rfp/#/14960/Northwest_CASC_2022_Funding_Opportunity
Pacific Islands	https://sciencebase.usgs.gov/rfp/#/14795/Pacific_Islands_CASC_2022_Funding_Opportunity
South Central	https://sciencebase.usgs.gov/rfp/#/14987/South_Central_CASC_2022_Funding_Opportunity
Southeast	https://sciencebase.usgs.gov/rfp/#/14781/Southeast_CASC_2022_Funding_Opportunity
Southwest	https://sciencebase.usgs.gov/rfp/#/14876/Southwest_CASC_2022_Funding_Opportunity

For additional help with RFPManager, please visit our Help site (<https://www.sciencebase.gov/catalog/item/5f46831182ce4c3d1225502f>) or contact us (casc@usgs.gov).

APPENDIX B: Format and Guidelines for Statements of Interest

Statements of Interest (SOI) must be submitted as a [PDF](#) to RFPManager (see links in [Appendix A](#)). The SOI template can be downloaded as a Word document directly from RFPManager.

Statement of Interest Structure (*see additional guidance below for each item*):

Section 1: Project Administration Information (1/4 page)

Section 2: Collaborations, Engagement, and Actionable Science Outcomes (3/4 page)

Section 3: Project Summary (1 page)

Section 4: Estimated Budget Table

Two pages maximum with a standard font at 10 point or larger with one-inch margins (*2-page maximum does not include Estimated Budget Table*).

If you are submitting an SOI for a project that extends across multiple CASCs, please submit the SOI to each CASC of interest and state directly in the SOI PDF document that you plan to do so.

SECTION 1: PROJECT ADMINISTRATION INFORMATION (1/4 page)

- Project Title
 - Note: Project titles should be written for a non-technical, non-scientific audience. An example of a good title is: *The Impact of Drought on Waterbirds and Their Wetland Habitats in California's Central Valley* (straight forward, avoids scientific jargon, compelling, and easy to understand).
- Short description (generally one sentence)
- CASC(s) to which the SOI is responding
- Science Priority Topic to which the SOI is responding (if applicable)
- Name of Lead Agency/Institution/Organization requesting funding
- Project Lead Contact or Principal Investigator
- Mailing Address
- City, State, Zip
- Telephone and E-mail

SECTION 2: COLLABORATIONS, ENGAGEMENT, and ACTIONABLE SCIENCE OUTCOMES (3/4 page)

- Description of project collaborators, partners (i.e., individuals that are not co-PIs but will provide data, expertise, additional resources, guidance on resource management issues, etc.), and relevant stakeholders
- Description of how the partners' and stakeholders' strategic resource management priorities and climate adaptation needs will be incorporated into and addressed by the project
- Description of how collaborators, partners, and stakeholders will be involved in carrying out the project and contribute to achieving the project's goals
- Description of actionable science outcomes, including specifics on who will use the outcomes/products, how they will be communicated and delivered to partners and stakeholders, and how they will be used for natural and cultural resource management.
- Description of opportunities provided to early career researchers and resource managers, and/or description of ways in which the project will expand applicability, enhance regional climate resilience, build climate adaptation capacity, etc.

SECTION 3: PROJECT SUMMARY (1 page)

Please provide a brief narrative summary of the project based on the needs and evaluation criteria described earlier in this document for the CASC region to which the proposal applies.

SECTION 4: ESTIMATED BUDGET

Provide an estimated budget, including relevant indirect costs (including pass-through costs, if any, at the CASC host university). Use the format below for an estimated budget table and include it as the last page in the SOI PDF document. In addition, enter budget totals directly into the RFPManager registration page where asked. The Budget Template “years” are budget years – the years of funding within which you propose to accomplish the work.

Institution Name	Budget Year 1	Budget Year 2	Budget Year 3	Total
Institution 1				
Institution 2				
Institution 3				
Institution 4				
Add additional lines as needed				
TOTAL				

APPENDIX C: Format and Guidelines for Invited Proposals

Invited Full Proposals must be submitted through RFPManager (see links in [Appendix A](#)). The proposal template can be downloaded as a word document directly from RFPManager.

Proposal Structure:

Proposals must include three separate items (*see additional guidance below for each item*):

1. **Proposal body** - single PDF document with:
 - A. Proposal cover page and project summary (max. 1 page)
 - B. Plain Language Public Summary (not to exceed 300 words; submitted on a separate page and in RFPManager)
 - C. Proposal body (max. 7 pages)
 - D. Budget justification (no page limit)
 - E. Curriculum vitae (max. 2 pages per investigator)
 - F. Literature cited (no page limit)
 - G. Letters of support (optional, as needed)
2. **Budget** submitted via an Excel template available in RFPManager
3. **Data Management Plan** submitted via a Word template available in RFPManager

1. PROPOSAL BODY

SINGLE PDF DOCUMENT WITH:

A. Proposal Cover Page and Project Summary (max. 1 page). Include the following information:

Project title: Brief but descriptive title of proposed project.

- * Note: Project titles should be written for a non-technical, non-scientific audience. An example of a good title is: *The Impact of Drought on Waterbirds and Their Wetland Habitats in California's Central Valley* (straight forward, avoids scientific jargon, compelling, and easy to understand).

Principal investigator (PI): List the name of the Research Principal Investigator. All communications and notifications will be directed to this individual and to the Fiscal Contact (see below). Other participants should be listed below.

Phone number of PI:

Email of PI:

Name and number of PI's cost center (only for USGS PIs):

Project Administrative Contacts:

- *Consortium-led Proposals:* Provide **name, title, and email** of a "sponsored research office" (e.g., Sponsored Programs Office) contact – an individual who can legally bind the university. All contractual and fiscal communications and notifications will be directed to this individual.
- *USGS-led Proposals:* Provide **name, title, and email** of the person in your science center/unit who handles Changes of Allocation.

Names/Affiliations of Co-PIs: List other members of primary project team; no contact information required. Also

list names/affiliations of graduate students or post-docs to be funded by the project, if known.

Names/Affiliations of other cooperators and partners (no contact information required): Individuals or agencies that are not co-PIs but will provide data, expertise, additional resources, guidance on resource management issues, etc. and will actively contribute to achieve the project's goals.

Proposed start date and estimated duration of project period (e.g., Start Date: 1 June 2022, 24 months): Please note that the official project start date is determined by the effective date specified in the grant or cooperative agreement award executed by the USGS Office of Acquisition and Grants (for university consortium proposals) or the date of the Change of Allocation (for USGS proposals). Researchers should not start work on a project until the award documents or Change of Allocation has been received by the recipient institution.

Note for planning purposes: Official start dates are determined by the date of funding. Final funding actions will not occur until Congressional action is taken to put a budget in place for the funding opportunity fiscal year, either with appropriation bills or a year-long continuing resolution. Delays in Congressional budget action may delay receipt of funds and project start dates.

Total project funding requested from the CASC:

Funding from other sources to be applied to this project: List additional funding sources.

Keywords: (list three *general* keywords that best characterize the proposed project; it is not necessary to include climate or climate change as a keyword).

Project Summary: The project summary should provide a synopsis of the overall proposal. Key sections from the full proposal to summarize are: (1) Objectives/Justification, (2) Background, (3) Climate Informed Management Relevance, (4) Stakeholder Engagement Approach and Technology Transfer, (5) Procedures/Methods, and 6) Expected Results and Actionable Science Products. The project summary should be included in the proposal PDF. *NOTE: this summary does not replace the required "plain language public summary", as described in [Appendix D](#) and below.*

B. Plain Language Public Summary (max. 300 words)

The Plain Language Public Summary should provide a synopsis of the overall project, and should be suitable for sharing on public websites and through other outreach methods and should include these main elements:

- Why is the project important and valuable to stakeholders, the public, and society?
- Why is the project timely and needed now? Who needs the results from this work and why?
- What are the main goals of the project? What will be accomplished? What will be the most important outcomes and products?
- How will the results of the project improve climate resilience and adaptation, the health and well-being of human communities, and social and/or economic issues that are important to stakeholders and the general public?

The Plain Language Public Summary should be submitted on a separate page within the proposal PDF document and should also be submitted separately in RFPManager. See [Appendix D](#) for additional guidelines for the Summary.

C. Proposal Body (max. 7 pages)

Note: The proposal body must be limited to seven pages, single-spaced with one-inch margins and 12-point font, and formatted for standard 8.5x11-inch paper.

Objectives/Justification: Explain the objective of the proposed project (or need for continuation of existing project). Describe the significance and priority of the issue to be addressed and explain how the project relates to that issue. Identify instances in which the issue or question has been cited as a national or regional conservation priority; alternatively, present justification for why the proposed challenge has been neglected or overlooked but should be addressed now.

Geographic Scope: Describe the scope of the project. Unless otherwise noted, proposals should address information needs of the CASC region to which they are applying.

Background: Describe the scientific or technical issues that underlie the proposed activity, including available relevant findings, related ongoing activities, problems to be addressed, and scientific value of anticipated results. The results of related projects supported by other funders should be described, including their relation to the currently proposed work.

Climate-Informed Management/Stakeholder Relevance: Proposals should: (1) identify the stakeholders that will benefit from the project, (2) list the specific planning, management, or decision-making information gap or needs, (3) justify the critical need for new or additional information in relation to the management question, and (4) outline how the products will be used in climate-informed resource management planning or decisions.

Stakeholder Engagement Approach and Technology Transfer: Proposals should (1) explicitly state the intended level of engagement of the stakeholders listed above (see the section on “Science Approach” for levels of engagement), (2) provide an overview of the expressed intended strategies for, and the intended sequence of, stakeholder engagement (e.g., fact sheets, webinars, workshops, colliders), which should then be reflected in the project work plan (see below), and (3) justify the appropriateness of the planned approach for the project goals and for ensuring that expected products will meet the needs of stakeholders. Identify the anticipated stakeholder engagement or outreach products (e.g., fact sheets, webinars, trainings, etc.). Describe plans for digital integration and dissemination of data and products resulting from the project. Specifically identify products to be developed within a period of one to three years and key milestones for producing those products

Procedures/Methods: Describe the procedures and methods to be followed in detail to permit evaluation by peer reviewers of likely success. If applicable, the following topics should be addressed: hypotheses to be tested; modeling approach to be used; model validation procedures; acceptance and rejection criteria; statistical analysis approaches; other methods used in research efforts, sampling, or surveying.

Expected Results and Science Products: Describe expected science results and products to be generated from the project (e.g., models, data sets, associated products and metadata, written reports, scientific publications, maps, software, etc.).

Cooperators/Partners: Indicate all cooperators or partners making significant contributions to achieving the proposed project’s goals. Provide brief summaries of the respective roles and types of contributions (e.g., financial, in-kind, technical) to the achievement of the project objectives. Include names, addresses, affiliations, phone, and email addresses. Indicate arrangements and mechanisms for establishment of partnerships. Summarize how this project will rely upon, build upon, or otherwise leverage either (1) existing USGS funding or projects or (2) the funding and resources of partners and collaborators.

Facilities/Equipment/Study Area(s): Describe facilities, major equipment, computing infrastructure and field-study areas utilized in the project.

Work and Reporting Schedule: Provide a timetable for milestones of science results and products, other accomplishments, and completion of the project. Identify who on the project team will be responsible for required reporting (quarterly, if applicable, annual, and final), the Data Management Plan, and product delivery.

Qualifications of Project Personnel: Summarize the qualifications of each principal investigator, co-investigator, and any other personnel with primary responsibilities and making significant contributions to the success of the proposed project. Refer to CVs as appropriate. The proposal should also indicate if and how the project will contribute to the development of early career scientists or resource managers (within 10 years of a degree or assistant faculty status) or the training of new scientists through funding of students or post-docs.

Legal and Policy-Sensitive Aspects: Address any issues related to legal or policy mandates. Include any necessity for state or federal permits (e.g., the need for permits to collect or hold wild animals, to access federal or private lands, or any restrictions on the dissemination of data or products). If field work will be completed on federal lands, identify and indicate whether arrangements have already been made for access to the land.

Animal Use or Human Subjects: Any research on animals must go through the investigators' Institutional Animal Care and Use Committee (IACUC) and get formal approval by their Institutional Review Board or similar entity. Any research working with human subjects must go through the investigators' institutional Human Subjects Review process and get formal approval by their Institutional Review Board or similar entity.

Tables and Figures: Tables and figures may be included in the proposal body, as necessary, but they must be within the seven-page limit.

D. Budget Justification Worksheet

Budget Justifications must follow the guidance and template in [Appendix E](#).

Budget justification worksheets must be included in the proposal PDF package. Use the worksheet template and tables provided in Appendix E to provide a detailed breakdown of costs for all budget categories and budget years included in the Excel Budget Form. **Each Recipient Institution, including recipients being awarded through sub-award, should have a separate budget justification worksheet included in the proposal PDF package.** All costs associated with each recipient should also be broken out in the Excel Budget Form (e.g., Recipient Institution 1 = Columns B-F, Recipient Institution 2 = Columns G-K, etc.).

E. Curriculum Vitae (max. 2 pages per investigator)

F. Literature Cited (no page limit)

Include full citations at the end of the proposal body.

G. Letters of Support (optional as needed, max. 1 page each)

Letters of Support from partners and stakeholders are very important, as they demonstrate commitment to actively engage in the study and intent to apply study results to climate-related issues they face. Letters of Support should include the following elements:

1. Demonstration that the partner or stakeholder has an adequate understanding of the proposed study, including the anticipated outcomes and products,
2. Description of how the anticipated project outcomes and products will be used to address a specific management priority, help meet a specific conservation/adaptation goal, inform a management decision, or improve a planning document, and
3. Commitment from the partner or stakeholder to regularly engage with the project team throughout the life of the project, from planning to completion.

General statements such as, “This study will provide valuable information to help us better manage our resources,” do not convey the above elements. We seek more specific statements such as, “The proposed climate change vulnerability assessment tool will allow my agency to visualize how the range of species X may change over time and help us decide where to dedicate monetary resources to enhance conservation. This project is important to us, and I intend to help the project team tailor the tool to meet my management agency’s specific needs.”

2. BUDGET FORM

Investigators are required to use the Excel Budget Form Template provided in RFPManager. Additional information about costs should be provided in the Budget Justification Worksheet within the proposal PDF (see Section D. Budget Justification Worksheet above). Please note that the Budget Justification Worksheet should be completed for *all recipient institutions (including sub-awards)*.

Below is a listing of the categories of budget information that will be required in the excel budget template. This information will be broken out by recipient institution and by budget year. **Please fill out separate “Recipient Institution” columns in the excel budget form for:**

- The “Primary” project/research institution(s)
- Other institutions whose activities are “major” in terms of the project budget or responsibility for completion of the project (smaller partners and minor contracts, e.g. sample analysis, should not be included as Recipient Institutions, but should instead be included in the Consultants or Contracted Support Services section of the budget)
- Any USGS unit receiving funding

For example, a project involving two consortium universities and a USGS lab would have THREE “Recipient Institution” columns.

Budget Categories Requested in the Excel Budget Form:

- A. Salaries and Wages
- B. Fringe Benefits
- C. Tuition
- D. Supplies
- E. Special Purpose Equipment
- F. Consultants or Contracted Support Services
- G. Travel
- H. Participant Support Costs
- I. Other Direct Costs
- J. Modified Total Direct Costs
- K. Indirect Costs
- L. Non-Federal Partner Funding Contributions

3. DATA MANAGEMENT PLAN

Investigators are required to use the Data Management Plan (DMP) template provided in RFPManager. Please see <https://www.usgs.gov/ecosystems/climate-adaptation-science-centers/data-policy-and-guidance> for additional guidance and instructions on how to develop the required DMP.

If the proposal is selected for funding, the DMP *must* be updated within one month of project initiation and reviewed periodically until project completion. A CASC Data Steward will work with research teams to answer any questions and assist in the development and review of the DMP for funded projects. Questions about developing a DMP for this funding opportunity should be directed to Emily Fort (efort@usgs.gov), the Data and Information Coordinator for the Climate Adaptation Science Center Network, or the regional CASC's Data Steward (contact information can be found at the link above).

APPENDIX D: Guidelines for Plain Language Public Summaries

Plain Language Public Summaries are a required component for all invited full proposals. The summary must be submitted in the proposal PDF document to RFPManager (see [Appendix C](#) for proposal requirements). If your project is selected for funding, the public summary will be displayed on a public webpage. Edits to the summary may be requested by the CASC before posting.

Public Summaries should provide a synopsis of the overall project and be suitable for sharing on public websites and through other outreach methods. They should be less than 300 words and include these main elements:

- Why is the project important and valuable to stakeholders, the public, and society?
- Why is the project timely and needed now? Who needs the results from this work and why?
- What are the main goals of the project? What will be accomplished? What will be the most important outcomes and products?
- How will the results of the project improve climate resilience and adaptation, the health and well-being of human communities, and social and/or economic issues that are important to stakeholders and the general public?

Write the summary in a way that is compelling, non-technical, and understandable to a non-scientist. *If your congressional representative wouldn't understand the project after one read-through of the summary, then it's too technical.*

Example of a good plain language public summary:

Fighting Drought with Fire: Can Managers Increase Forest Resistance to Drought using Prescribed Fire?

Drought is one of the biggest threats facing our forests today. In the western U.S., severe drought and rising temperatures have caused increased tree mortality and complete forest diebacks. Forests are changing rapidly, and while land managers are working to develop long-term climate change adaptation plans, they require tools that can enhance forest resistance to drought now. To address this immediate need, researchers are examining whether a common forest management tool, prescribed fire, can be implemented to help forests better survive drought.

Prescribed fire is commonly used in the western U.S. to remove potential wildfire fuel, such as small trees and shrubs. It is also thought that this act of selectively removing some trees helps the remaining trees better survive drought events, because there is less competition for water. However, the proposition that prescribed burning could improve forest resistance to drought has never been formally tested. By comparing the survivorship of trees in burned and unburned forest monitoring plots in drought-impacted areas, researchers will determine (a) whether prescribed fire is an effective tool for improving forest resistance to drought, and (b) whether factors such as time since fire and tree species and size influence a forest's degree of resistance.

In the face of ongoing climate change and projected future drought conditions in the West, this study will help land managers make informed decisions on how to best allocate limited climate change adaptation funds. The results will help managers make cost-benefit analyses of dollars spent using prescribed fire and determine whether this method can be used to prepare forests for a drier future.

APPENDIX E: Budget Justification Worksheet

The Budget Justification Worksheets are a required component for all invited full proposals. These worksheets must be submitted in the proposal PDF document to RFPManager (see Appendix C for proposal requirements).

Use the worksheet template and tables provided below to provide a detailed breakdown of costs for all budget categories and budget years included in the Excel Budget Form. **Each Recipient Institution including recipients being awarded through sub-award (see Section 1 below) should have a separate budget justification worksheet included in the Proposal PDF package.** All costs associated with each recipient should also be broken out in the Excel Budget Form (e.g. Recipient Institution 1 = Columns B-F, Recipient Institution 2 = Columns G-K, etc.).

Please make sure total budget numbers in this worksheet match the numbers in your Excel Budget Form. *Lead PIs from universities are encouraged to work directly with their university's Sponsored Program Office to ensure that budget details, including indirect costs, are calculated correctly before submitting their budget and proposal to a CASC.*

Fill out each section below completely. Detail should provide USGS with a complete understanding and breakdown of the costs proposed. Unjustified expenses or lack of detail can slow the project selection and/or award processing time. The categories below align with categories required in the Excel [Budget Form](#).

Numbers and information in the Example sections below are fictional examples only and should not be used in calculations for your budget. Please remove all example text and instructions from your budget justification before submitting your proposal document to the CASC.

1. Recipient Institutions (Budget Form - Row 3)

List all Recipient Institutions in the table below that are included in the proposed budget and would receive project funds. Indicate whether each recipient would receive funds a) directly from a CASC, b) through the CASC host university, or c) via sub-award from a different institution. If the recipient would receive funds from a sub-award, clearly describe the funding flow (how the money moves from the CASC to the recipient). **Add additional rows as needed.**

	Recipient Institution Name:	Total Funds Requested	Would this recipient receive funds a) directly from USGS, b) through the CASC host university, Or c) via sub-award from a different institution?	If receiving funds from a sub-award, from whom would the money flow to the recipient?
Recipient Institution 1: <i>(Primary)</i>				
Recipient Institution 2:				
Recipient Institution 3:				
Recipient Institution 4:				

Example 1. Recipient Institutions:

	Recipient Institution Name:	Total Funds Requested	Would this recipient receive funds a) directly from USGS, b) through the CASC host university, Or c) via sub-award from a different institution or USGS center?	If receiving funds from a sub-award, from whom would the money flow to the recipient?
Recipient Institution 1: (Primary)	University of Colorado Boulder	\$123,456	Directly from USGS	N/A
Recipient Institution 2:	University of Montana	\$12,345	Through the CASC host university	University of Colorado Boulder (CASC Host)
Recipient Institution 3:	University of Wyoming	\$987,765	Sub-award	University of Montana
Recipient Institution 4:	Conservation Science Partners	\$55,555	Through the CASC host university	University of Colorado Boulder (CASC Host)
Recipient Institution 5:	USGS Northern Prairie Wildlife Research Center	\$101,010	Directly from USGS	N/A

2. Budget Justification Worksheet for _____ (Recipient Institution Name)

**** Complete a separate Section 2. Budget Justification Worksheet for each Recipient Institution identified above in Section 1. Recipient Institutions. ****

a. Salaries and Wages for _____ (Recipient Institution Name)

Budget Form – Rows 6-10

Total Requested for Salaries and Wages for Named Recipient			
Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:

Using the table below, identify each individual supported by the proposed budget by name and role in the project. If name is unknown (e.g. for to-be-hired graduate students), put “TBD”. Describe the person’s role and responsibilities in the project. For each budget year, list the amount of effort to be expended for the project (estimated hours or percent of time), the salary/wage rate, and the total salary. Include a detailed explanation to describe what the listed salary rate is based on and how it has been determined. Include an explanation for projected increases in pay and, if applicable, an explanation for why the rate of pay shown is higher than the current rate of pay. Include a statement in the budget justification confirming that budgeted salaries and fringe benefits are based on current rates. Include any other useful information to justify the listed costs. Include a link to relevant university/organization policies made available online, if applicable.

NOTE: Tuition remission and other forms of compensation paid as, or in lieu of, wages to students should not be included here, but should be included in Section 4. Tuition below.

Use the table below and add (copy/paste) additional tables for each additional individual.

Personnel Name, Role, and Responsibilities:				
	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:
Level of Effort:				
Rate:				
Total Salary Requested:				

Explanation to describe what the listed salary is based on and how it was determined; Explain any projected increases in pay or why the rate shown is higher than the current rate; Include any other information to help explain or justify costs in this category: Add text here.

Example 2. Salaries and Wages Breakdown:

Personnel Name, Role, and Responsibilities:	Shirley N. Example, Ph.D., Principal Investigator. Dr. Example will direct the overall operation of the project; is responsible for overseeing the implementation of project activities, coordination with other agencies, development of materials, provision of in-service and training, conducting meetings and coordinating with agencies, designing and directing the gathering, tabulating and interpreting of required data, and is responsible for overall program evaluation and for staff performance evaluation; and is the responsible authority for ensuring necessary reports/documentation are submitted to USGS. This position relates to all program objectives.			
	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:
Level of Effort:	5 months	2 months	-	-
Rate:	\$5,555/month	\$5,666/month	-	-
Total Salary Requested:	\$27,775	\$11,332	-	-

Explanation: The salary rate for Dr. Example is based on her current rates with the University of Example. Year 2 rate includes a 2% increase, which is standard for the University of Example.

b. Fringe Benefits for _____ (Recipient Institution Name)

Budget Form – Rows 12-16

Using the table below, indicate the fringe benefit rates (as a percentage of salary) and amounts for the individuals listed above. Provide a detailed explanation of what costs are included in this category and the basis of the rates provided. Indicate whether fringe rates are based on estimates used for proposal purposes only or whether they are firm for billing purposes. Include a link to relevant university/organization policies made available online, if applicable. **Use the table below and add additional rows as needed.**

Personnel Name/Role:	Budget Year 1:		Budget Year 2:		Budget Year 3:		Budget Year 4:	
	Rate (% of Salary) OR Fixed amount + rate (\$ + %):	Total Fringe Benefits (\$):	Rate (% of Salary) OR Fixed amount + rate (\$ + %):	Total Fringe Benefits (\$):	Rate (% of Salary) OR Fixed amount + rate (\$ + %):	Total Fringe Benefits (\$):	Rate (% of Salary) OR Fixed amount + rate (\$ + %):	Total Fringe Benefits (\$):

Total Requested for Fringe Benefits for Named Recipient								
---	--	--	--	--	--	--	--	--

Explanation of what costs are included and the basis for the rates provided; Indicate whether the rates are estimates or firm: Add text here.

Example 3. Fringe Benefits:

Personnel Name/Role:	Budget Year 1:		Budget Year 2:		Budget Year 3:		Budget Year 4:	
	Rate (% of Salary) OR Fixed amount + rate (\$ + %):	Total Fringe Benefits (\$):	Rate (% of Salary) OR Fixed amount + rate (\$ + %):	Total Fringe Benefits (\$):	Rate (% of Salary) OR Fixed amount + rate (\$ + %):	Total Fringe Benefits (\$):	Rate (% of Salary) OR Fixed amount + rate (\$ + %):	Total Fringe Benefits (\$):
Shirley Example, PI	33%	\$9,165.75	33%	\$3,739.56	-	-	-	-
Example John, Co-PI	\$1300 + 15%	\$5,466.25	-	-	-	-	-	-
Total Requested for Fringe Benefits for Named Recipient		\$14,632		\$3,739.5		-		-

Explanation: The University of Example’s standard fringe benefit rates are applied to the above salaries. These are University of Example fiscal year 2022 proposed rates, effective 7/1/2022. Fringe benefits include: worker’s compensation, unemployment compensation, health plans, retirement plans, Social Security, Medicare, and separation leave. Basis: Each year, the University of Example’s accounting department uses estimated costs to calculate the rates for charging fringe benefits to budgets during the next fiscal year. The department sends the calculations to DHHS for approval. The new rates are effective July 1st. At the end of the year, the University compares the estimated costs, charged to the budgets, to the actual costs of the benefits, paid by the University, and adjusts the next year’s rate accordingly.

c. **Tuition for** _____ (Recipient Institution Name)

Budget Form – Rows 18-20

Tuition remission and other forms of compensation paid as, or in lieu of, wages to students performing necessary work are allowable, provided that the tuition or other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of the work. Provide a detailed explanation of the costs covered in this category. Verify that tuition amounts are based on current rates and are not included in indirect cost calculations in your budget. Include a link to relevant university/organization policies made available online, if applicable. **Use the table below and add additional rows as needed.**

Name/Role:	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:
	Tuition:	Tuition:	Tuition:	Tuition:

Total Requested for Tuition for Named Recipient				
---	--	--	--	--

Explanation of the costs covered in this category: Add text here. See instructions above.

Example 4. Tuition:

Name/Role:	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:
	Tuition:	Tuition:	Tuition:	Tuition:
TBD, Graduate Research Assistant – field work, writing blog posts	\$2,476	\$2,476	-	-
TBD, undergraduate assistant – website management and data management support	-	\$1,875	-	-
Total Requested for Tuition for Named Recipient	\$2,476	\$4,351	-	-

Explanation: This budget will support \$2,476 per semester for the graduate research assistant. The budget estimated covers 1 semester per budget year. The undergraduate assistant will only be supported in Budget Year 2 for 1 semester at \$1,875. These rates are based on current rates at the University of Montana. These costs are not included in the Indirect Cost section of this budget.

d. Supplies for _____ (Recipient Institution Name)

Budget Form – Row 22

Using the table below, enter the cost for all expected supplies, including a breakdown of costs for each item. Include the cost of office, laboratory, computing, and field supplies, and any other supply items. Provide as much detail as possible to fully describe how the total cost for supplies was determined. If fabrication of equipment is proposed, list parts and materials required for each and itemize the costs in the table below. Provide a detailed explanation of why each of the costs included in this category are needed and how the cost estimates were determined. **Use the table below and add additional rows as needed.**

NOTE: Do not include "Special Purpose Equipment" in this section (see definition and include in Section 6 below).

Supply Item:	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:
	Cost:	Cost:	Cost:	Cost:
Total Requested for Supplies for Named Recipient				

Explanation of why the costs included in this category are needed and how the cost estimates were determined: Add text here.

Example 5. Supplies:

	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:
	Cost:	Cost:	Cost:	Cost:

Supply Item:				
Soil moisture sensors for 12 cm depth for 2 field sites	\$3,000 (\$1,500 each)	-	-	-
PVC, shade cloth, and rebar for building restoration experiment	\$400	-	-	-
Write-in-the-rain notebooks for field notes	\$100	-	-	-
Total Requested for Supplies for Named Recipient	\$3,500	-	-	-

Explanation: The supplies listed above are necessary to conduct the field studies related to understanding tree restoration. The supplies listed will be purchased in budget year 1 only. The costs listed are actual costs listed on supplier websites and are the most cost-effective options available.

e. Special Purpose Equipment for _____ (Recipient Institution Name)

Budget Form – Row 23

"Special purpose equipment" means scientific equipment having a useful life of more than 1 year and having an acquisition cost of \$5,000 or more per item. Using the table below, show the cost of all special purpose equipment necessary for achieving the objectives of the project. Each item should be itemized and include a full explanation of why it is needed (i.e. how it will help achieve the objectives of the project), how the cost estimate was determined, and a dealer or manufacturer quote, if available. The awarding government agency has the authority to determine who the equipment shall be vested with at the end of the project. **Use the table below and add additional rows as needed.**

Equipment Item:	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:
	Cost:	Cost:	Cost:	Cost:
Total Requested for Equipment for Named Recipient				

Explanation: Add text here. See instructions above.

Example 6. Special Purpose Equipment

Equipment Item:	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:
	Cost:	Cost:	Cost:	Cost:
Example Modified Gill Nets	\$6,000	-	-	-
Total Requested for Equipment for Named Recipient	\$6,000	-	-	-

Explanation: The gill nets will be used for catching fish in order to take measurements and better understand health and characteristics of fish communities in order to achieve the project objectives. The Gill Nets will be purchased from the Gill Net Supply Company and the costs listed above are based on current costs for 2 nets (found on the company website).

f. **Consultants or Contracted Support Services for _____ (Recipient Institution Name)**

Budget Form – Row 24

Total Requested for Consultants or Contracted Support Services for Named Recipient			
Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:

Using the table below, identify each consultant or contracted service supported by the proposed budget. Describe the tasks or problems for which such services would be used. List the consultant by name and affiliation, the estimated amount of time required, the quoted rate per day or hour, and the total cost per budget year. If known, state whether the consultant's rate is the same as she/he has received for similar services or under Government contracts or assistance awards (provide documentation confirming this information if available). Provide a detailed explanation for what the rates are based on and how they were determined and a justification for why these costs are necessary for the project.

Use the table below and add (copy/paste) additional tables for each additional consultant/contractor.

Consultant Name and Affiliation:				
Tasks:				
	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:
Time required:				
Quoted rate per day or hour:				
Total Cost:				

Explanation of what the rates are based on and a justification for why these costs are necessary for the project: Add text here.

Example 7. Consultants or Contracted Support Services:

Consultant Name and Affiliation:	Example Data Visualization Company			
Tasks:	Development of an online web-application for displaying and evaluating a vulnerability framework and developing an online data visualization tool			
	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:
Time required:	320 hours	-	-	-
Quoted rate per day or hour:	\$75 per hour	-	-	-
Total Cost:	\$24,000	-	-	-

Explanation: Contractual costs of \$24,00 are requested in budget year 1 to support salary and overhead costs for 1 visualization expert at the listed company to develop the online framework and data visualization tool. Services will include meeting with the research team to determine how the tool will function and time spent developing the tool.

g. **Travel for _____ (Recipient Institution Name)**

Budget Form – Row 25

Use the table below to itemize all anticipated travel costs supported by the proposed budget. Briefly state

the purpose of the travel in the table and include a longer, detailed justification for the trip after the table. Justify why each of the trips listed are necessary for the project. For travel requested to meetings or conferences, include a description of the benefit to the proposed project. Explain what the travel costs are based on (university rates, GSA rates, online quotes, etc.). Include any other useful information to justify the listed costs. Include a link to relevant university/organization policies made available online, if applicable. Failure to provide this information may result in a determination of the cost as unallowable. **Use the table provided below and add additional rows as needed.**

NOTE: Participant Support Costs should not be included in this section. Participant Support Costs should be listed in Section 9. Participant Support Costs.

NOTE: Budgets for non-federal institutions can not include funding for travel for federal employees.

Use the table below and add additional rows as needed.

Budget Year (1, 2, 3, or 4):	Purpose of Travel:	From:	To:	Expense Item*:	Number of Travelers:	Number of Days:	Rate:	Total Cost:
Total Requested for Travel for Named Recipient								

***Expense Item:** Include a separate row in the table for each “expense item” per trip. Travel expense items should include: airfare and/or other transportation including personally owned vehicles or vehicle rental costs, per diem, hotel or other accommodations, mileage, registration fees, any other miscellaneous expenses, etc.

Explanation of how the costs were determined and what the rates are based on and a justification of why the travel listed is necessary for the project: Add text here.

Example 8. Travel:

Budget Year (1, 2, 3, or 4):	Purpose of Travel:	From:	To:	Expense Item*:	Number of Travelers:	Number of Days:	Rate:	Total Cost:
2	PI travel to ESA Meeting	Boulder, CO	Long Beach, CA	Airfare	1	2 (round trip)	\$500	\$500
“	“	“	“	Lodging (Hotel)	1	4	\$180/night	\$720
“	“	“	“	Per Diem	1	5	\$60/day	\$300
“	“	“	“	Ground Transportation (Taxi)	1	5	\$30/day	\$150
Total Requested for								\$1,670

Travel for Named Recipient								
----------------------------	--	--	--	--	--	--	--	--

Explanation: Travel funds are requested for the PI to attend the Ecological Society of America (ESA) conference in 2022 (Monday May 5 – Friday May 9, 2022). The PI will present findings from the project’s workshop report at the conference. Lodging and per diem costs were estimated using the university’s current rates and are the most cost-effective option. Ground transportation costs are based on current taxi rates for the location and mileage from the hotel to the conference center.

h. Participant Support Costs for _____ (Recipient Institution Name)

Budget Form – Row 26

Use the table below to list all Participant Support Costs associated with conferences, workshops or symposia that are supported by the proposed budget. Explain why the participant support costs listed are necessary for the project and how they will help achieve specific project objectives. Explain how the costs were determined. Include any other useful information to justify the listed costs. Include a link to relevant university/organization policies made available online, if applicable.

NOTE: This section specifically covers travel, per diem, conference related costs etc. for workshops, events, or conferences that the recipient hosts as part of the project. Costs for project personnel to attend external conferences or workshops (e.g. events not hosted as part of this project) should NOT be included in this section but should be included in Section 8. Travel above.

Use the table below and add additional rows as needed.

Budget Year (1, 2, 3, or 4):	Purpose:	Location:	Expense Item*:	Number of Participants:	Number of Days:	Rate:	Total Cost:
Total Requested for Travel for Named Recipient							

***Expense Item:** Include a separate row in the table for each “expense item”. Participant Support expense items should include: stipends, fees, travel, training expenses, administrative costs, any other miscellaneous expenses, etc.

Explanation of why the costs listed are necessary for the project and how the rates were determined: Add text here.

Example 9. Participant Support Costs:

Budget Year	Purpose:	Location:	Expense Item*:	Number of Participants:	Number of Days:	Rate:	Total Cost:
-------------	----------	-----------	----------------	-------------------------	-----------------	-------	-------------

(1, 2, 3, or 4):							
1	Early Career Climate Science Workshop	Reston, VA	Lodging (Hotel)	8	6 nights	\$100/night	\$4,800
1	“	“	Airfare (round trip)	4 (estimated distance traveled – 51 – 400 miles)	2 travel days	\$450 estimate (round trip)	\$1,800
1	“	“	Airfare (round trip)	4 (estimated distance traveled – more than 400 miles)	2 travel days	\$650 estimate (round trip)	\$2,600
Total Requested for Travel for Named Recipient							\$9,200

Explanation: Project funds will be used to host an early career climate science workshop and support early career researchers from outside of the local area to attend. We will invite 8 participants from outside the local area. We have estimated airfare costs in the table above based on an estimate of 4 participants from 51-400 miles away and 4 from over 400 miles away. Lodging rates are based on GSA per diem rates. We will also invite 4 local participants but will not cover their costs for travel or lodging.

i. Other Direct Costs for _____ (Recipient Institution Name)

Budget Form – Row 27

Use the table below to itemize the different types of costs not included elsewhere such as, publication, shipping, computing, equipment use charges, or other services. Provide breakdowns showing how the cost was estimated; for example, computer time should show the type of computer, estimated number of hours needed, and the established rates. For publication costs, we need a breakdown of cost per page (can base costs on submission of a standard article to an example journal). Provide as much detail as possible to fully describe how the total cost for Other Direct Costs was determined. Provide a detailed explanation and justification of each of the costs included in this category. **Use the table below and add additional rows as needed.**

Item:	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:	Breakdown of Costs (see instructions above):
	Cost:	Cost:	Cost:	Cost:	
Total Requested for Other Direct Costs for Named Recipient					

Explanation and justification for why the costs included in this category are necessary for the project: Add text

here.

Example 10. Other Direct Costs:

Item:	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:	Breakdown of Costs (<i>see instructions above</i>):
	Cost:	Cost:	Cost:	Cost:	
Publication fees for 1 article in Science Journal	-	-	\$2,250	-	Estimate is based on a 15-page publication at \$150 per page. Includes open access fees in addition to the standard publishing costs.
Shipping of poster and materials to ESA conference	-	\$30	-	-	Estimate based on current FedEx rate for a 2lb package (included rolled up poster)
Total Requested for Other Direct Costs for Named Recipient	-	\$30	\$2,250	-	

Explanation: Publication fees are necessary to publish the findings from the study. Publication costs are based on current costs per page from the target journal. The poster and materials will be shipped to the Ecological Society of America 2022 conference to allow the PI to communicate project findings. FedEx estimates are based on current weights for mailing 2lb package that includes a poster tube.

j. Modified Total Direct Costs (Non-Federal budgets only) for _____ (Recipient Institution Name)

Budget Form – Row 29

If applicable, use the table in this section to show the Modified Total Direct Costs (MTDC) that are used to calculate Indirect Costs in Section 12 below. Explain how the MTDC have been determined and what is or is not included in the calculation. Include any other useful information to justify the listed costs. Include a link to relevant university/organization policies made available online, if applicable. **Use the table below.**

Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:	How is MTDC determined? What is or is not included in MTDC?

Example 11. Modified Total Direct Costs:

Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:	How is MTDC determined? What is or is not included in MTDC?
\$150,567	\$187,789	\$55,008	-	MTDC includes all direct costs described in the budget except for: Participant Support Costs and Tuition

k. Indirect Costs for _____ (Recipient Institution Name)

Budget Form – Rows 31-33

Using the table below, show the proposed rate, cost base, and proposed amount for allowable indirect costs based on the cost principles for the recipient institution(s). General & Administration (G&A) IDC should not be calculated for any tuition remission. If the Applicant has separate rates for recovery of labor overhead and

G&A costs, each charge should be shown (add rows to the table as needed). Explain the distinction between items included in the two cost pools. Include any other useful information to justify the listed costs. Include a link to relevant university/organization policies made available online, if applicable.

NOTE: A copy of the indirect negotiated cost agreement with the Federal Government will be requested from all applicants recommended for an award. This request will be made at the time of recommendation notification. In the absence of a negotiated cost agreement or CPA certification, the applicant will be required to provide financial documentation to support the calculation of the proposed rates. If no documentation to support the calculation of indirect cost rates is provided, no award will be made.

Please double check your indirect cost (IDC) rates. Please make sure they reflect the most recent negotiated rate between your institution (or your sub-award) and the federal government. **Use the table below.**

	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:	Explanation of how calculations were made (Rates and base used, etc.). For Pass Through Costs name the collector of the pass through funds.
Overhead Collected by Recipient Institution:					
Pass Through Costs Collected by CASC Host or Other:					
Total Indirect Costs for Named Recipient:					

Example 12. Indirect Costs:

	Budget Year 1:	Budget Year 2:	Budget Year 3:	Budget Year 4:	Explanation of how calculations were made (Rates and base used, etc.). For Pass Through Costs name the collector of the pass through funds.
Overhead Collected by Recipient Institution:	\$70,766.49	\$88,260.83	-	-	University of Montana IDC rate is 47% of the Modified Total Direct Costs shown in the previous section. This rate is based on the current rate.
Pass Through Costs Collected by CASC Host or Other:	\$13,500	-	-	-	The pass-through costs collected by University of Colorado Boulder are 54% of the first \$25,000 of the award to UM. This rate is based on the negotiated IDC rate with UCB.
Total Indirect Costs for Named Recipient:	\$84,266.49	\$88,260.83	-	-	

Recipient:					
------------	--	--	--	--	--

3. Partner Contributions (Budget Form – Column AZ)

Provide a summary of any financial contributions from partners or in-kind support funds from the recipient institution(s). Any contributions from partners should be documented in a letter of support. Non-federal partner contributions should be included in the Excel Budget Form in Column AZ (last column in the spreadsheet).

Example 13. Partner Contributions:

The Nature Conservancy is contributing a total of \$20,000 to buy (\$9,950) and plant (\$10,050) ponderosa pine seedlings for the planting experiment.

APPENDIX F: CASC Science Approach

The National and Regional Climate Adaptation Science Centers (CASCs) seek to fund science projects that inform high-priority land, water, fish and wildlife, or cultural heritage resource management issues that can benefit from climate-informed adaptation planning. Science priority topics are identified by each CASC individually and discussed in the [Science Priorities & Details for Regional CASCs section](#). Project proposals must address at least one of the science priority topics listed for the region in which the proposal is being submitted to be considered for funding.

The CASC Network seeks to fund projects that create “actionable science.” Actionable science results from an intentional process of creating information and products that are useful and directly usable in supporting a resource management decision, action, or plan. Development of actionable science requires scientists to work iteratively with the intended end users of the scientific output and findings (stakeholders). The level of stakeholder engagement falls along a continuum, ranging from the communication of results (“inform”) to complete “co-production of knowledge,” whereby stakeholders are fully engaged in the scientific process from start to finish. The CASC Network recognizes that not every project can achieve complete co-production of knowledge, and regional CASCs often consider and fund pre-decisional or foundational climate research projects. However, all proposals submitted to the CASC Network should provide a clear explanation of how the research could produce information or lead to further scientific initiatives that would help managers make climate-informed decisions in the near future.

Investigators seeking more information on stakeholder-engaged actionable science are encouraged to contact their regional CASC staff and consult the following resources:

- Creating Actionable Science (5-minute video): https://youtu.be/5_OW0kAJzk.
- Actionable Science webinars developed by the Northwest CASC: <https://nwcasc.uw.edu/resources/actionable-science-webinars/>
- Beier, P., L. J. Hansen, L. Helbrecht, D. Behar. 2017. A how-to guide for coproduction of actionable science. *Conservation Letters* 103:288-296. Available at doi: 10.1111/conl.12300.
- Cross, M. S., E. S. Zavaleta, D. Bachelet, M. L. Brooks, C. A. F. Enquist, E. Fleishman, L. J. Graumlich, et al. 2012. The Adaptation for Conservation Targets (ACT) framework: a tool for incorporating climate change into natural resource management. *Environmental management* 50:341–51. Available at doi: 10.1007/s00267-012- 9893-7.
- Enquist, C. A. F., S. T. Jackson, G. M. Garfin, F. W. Davis, L. R. Gerber, J. A. Littell, J. L. Tank, A. J. Terando, T. U. Wall, B. Halpern, J. K. Hiers, T. Morelli, et al. 2017. Foundations of translational ecology. *Frontiers in Ecology and the Environment* 15:541-550. Available at doi:10.1002/fee.1733.
- Stein, B. A., P. Glick, N. A. Edelson, and A. Staudt, eds. 2014. *Climate-Smart Conservation: Putting Adaptation Principles into Practice*: Washington, D.C., National Wildlife Federation, 272 p. Available from NWF.
- Wall, T. U., E. McNie, and G. M. Garfin. 2017. Use-inspired science: making science usable by and useful to decision makers. *Frontiers in Ecology and the Environment* 15:551-559. Available at doi: 10.1002/fee.1735.
- Wall, T. U., A. M. Meadow, and A. Horangic. 2017. Developing evaluation indicators to improve the process of coproducing usable climate science. *Weather Climate and Society* 9:95–107. Available at doi: 10.1175/WCASD-16-0008.1.

APPENDIX G: Required Reporting for Funded Projects

Annual and Final Project Reports:

All funded projects are required to submit **Annual Progress Reports** (due 60 days prior to the end of the project's budget year) and a **Final Project Report** (due 90 days after the project completion date) to the Climate Adaptation Science Center (in addition to the Federal Financial Report required for external agreement administration, Form SF-425). Annual reports are typically internal documents that are reviewed by the CASC and not made public. Final project reports are made public and should go through necessary peer review procedures per USGS policy (i.e. USGS-authored final reports must go through IPDS). *Additional or more frequent reporting may be required by individual Climate Adaptation Science Centers. Please check with the CASC Directors to determine specific requirements.*

Failure to provide the required information may delay payments to your project and may jeopardize your ability to participate in future CASC funding opportunities.

These reports are:

- An essential component of CASC due diligence activities;
- A metric for gauging the impact of CASC funding programs;
- An opportunity for Principal Investigators (PIs) to suggest areas for improvement in the CASC funding program;
- A tool for the CASCs to gather information about publications, products, presentations and data to advance communications to resource managers, stakeholders and the general public;

Instructions and templates for annual and final reports can be found at: <https://www.usgs.gov/ecosystems/climate-adaptation-science-centers/project-tracking-policy-and-guidance>. CASC reporting requirements and templates are periodically updated. Please refer to this web page for the most up to date guidance.

Advanced Notice to CASC of Publications:

Funded researchers must also provide *advanced* notification to CASC Federal Directors of all anticipated manuscripts, videos, web tools, educational tools, etc. (any type of deliverable that will be made public) intended for publication/distribution that have been produced through the CASC-funded project (or where staff received funding through a CASC graduate fellowship).

Investigators should notify the CASC at the time a manuscript has been accepted for publication, and if possible when it has moved to "in press" status. USGS investigators should provide notice to the CASC Federal Director at the time of Bureau approval under the USGS Fundamental Science Practice (FSP) system (Information Products Data System, IPDS).

All manuscripts, press releases, and project products should include appropriate funding acknowledgements, per the instructions on the page linked below.

Additional information and instructions for Manuscripts and Publications, Press Releases, and Other Project Products can be found at <https://www.usgs.gov/ecosystems/climate-adaptation-science-centers/project-tracking-policy-and-guidance>.