ANNUAL FUNDING OPPORTUNITY
FISCAL YEAR 2013 and FISCAL YEAR 2014
U.S. Department of the Interior
U.S. Geological Survey
DOI Climate Science Centers

GENERAL INFORMATION AND INSTRUCTIONS

Background: This document provides information about funding opportunities from the eight Department of the Interior Climate Science Centers (CSC) for Fiscal Year 2013 and/or Fiscal year 2014, as appropriate.

Funding Opportunities In this Document: This document invites statements of intent for projects to be initiated in FY 2013 and/or FY2014, for the CSCs in the table below:

	Alaska	Southeast	North Central	Northwest	South Central	Southwest	Northeast	Pacific Islands
FY13	Not at this time	X	X	Not at this time	X	X	X	X
FY14	X	X	X	X	Not at this time	Not at this time	Not at this time	Not at this time

A future funding opportunity will solicit FY14 proposals for the South Central, Southwest, Northeast, and Pacific Islands CSCs.

Eligible Applicants: Only the following may submit proposals in response to this Funding Opportunity:

- institutions that are DOI CLIMATE SCIENCE CENTER Host institutions or members of a CSC consortium members and
- USGS centers, field stations and laboratories

Each proposal must have a Principal Investigator (PI) from an eligible entity. Parties from other organizations (Federal, State, Tribal, or other) are encouraged to establish working partnerships with one of the recognized eligible applicants to seek participation as part of a project lead by a CSC/university consortium or USGS PI.

Estimated Available Funds: Approximately $5,700,000 to $6,000,000 may be available to fund projects that support CSC science priorities in Fiscal Year 2013 and FY2014. See individual CSC sections for details. This funding opportunity is subject to the availability of funds and passage of a full Fiscal Year 2013 and FY 2014 budgets.

Funding Process: All funds will be transferred from a CSC to either a USGS entity through change of allocation or a CSC host institution through a cooperative agreement. These entities may then provide subawards to members of the CSC consortium or other parties.

Project funding amount: See individual CSC sections for details.

Project duration: See individual CSC sections for details.

Scientific topics to be funded:
A key component of the coordinated Funding Opportunity is the ability to work collaboratively across the CSC network. To that end the following are broad national topic headings under which individual CSCs have crafted specific detail guidance on the types of science they will support.

1. Collaboration, Communication and Translation of Science Results to Managers, Stakeholders and the Public interested in Climate Change Activity.
2. Assess and synthesize our state of knowledge about climate and land use change impacts to DOI natural and cultural resources.
3. Perform vulnerability assessments of species and ecosystems
4. Understand the social-ecological impacts of climate and land use change.
5. Understand the interactions between climate and the physical, biological, and chemical forces that influence the structure and functioning of ecosystems and the goods and services they provide.

See individual CSC sections for more specific details.

Schedule for Submission, Review, Awards:
Note: Submission deadlines for Statements of Interest and Proposals are "Midnight Mountain Standard Time"

Deadline for submission of Statements of Interest……February 1, 2013
Reviews with LCCs / Other Regional Partners and Technical Review……Week of February 11
Applicants Notified and Full Proposals Requested……February 25
Invited Full Proposals Due……..March 25
Technical and Other Reviews……Mar-Apr
Final Candidate Projects Identified ……..NLT May 1
Cross-Project and Cross-CSC Reviews……..May
Applicants Notified of Intent to Award……..NLT June 1
("Intent to Award" means a CSC has selected the project for funding, pending completion of all administrative reviews and processing to complete formal awards. See below for additional details.)

Application Process and Timeline

1. Submit a Statement of Interest. All parties interested in responding to this solicitation must first submit a Statement of Interest (SOI). An SOI application template is available in **Appendix A**. SOIs must be submitted via the portal at **HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS.** Failure to follow these guidelines may result in an SOI being removed from consideration. An acknowledgment receipt will be sent to the applicant within five business days.

2. Evaluation of Statements of Interest. SOIs will be reviewed by the relevant CSC, with input from regional partners, and by the National Climate Change and Wildlife Science Center (NCCWSC). Applicants may be contacted to provide additional or clarifying information. SOIs will be considered according to the following criteria.

- Applicability to a high priority need identified by the relevant CSC
- Scientific merit and quality of the research
- Engagement of stakeholders, decision makers, and other research entities
- Potential for cross CSC collaboration

Individual CSC sections below may include additional detail on how these criteria will be applied or may introduce additional ones (see individual CSC sections below). Applicants will also be evaluated based on past performance on USGS funded projects. Individuals or institutions with problems in timely or effective completion of projects will be eliminated from further consideration until the issues are addressed to the satisfaction of the CSC and NCCWSC.

3. Request for Full Proposal. Selected applicants will be invited by the CSC Director to develop full proposals. Proposals will not be accepted from investigators other than those invited as part of this process. Proposal format information is found in **Appendix B**. All proposals must comply with USGS requirements regarding data management, as specified in the USGS Science Data Sharing Policy found at

https://nccwsc.usgs.gov/content/data-policies-and-guidance

If the proposal is for a science support activity (e.g., workshop or literature review), a data management plan is not required.

The CSC Director reserves the right to contact applicants for clarification of technical elements of a proposal. Neither an invitation to submit a full proposal, nor a contact from the Director concerning proposal details necessarily mean that the project will be funded.

4. Proposal Review Criteria. The criteria listed below will be applied to all proposals. Each CSC will determine the weighting of these factors and the specifics of their application; see individual CSC sections for additional details.

- **Scientific merit and quality of the proposed research**: will address whether a project uses a credible scientific approach that reflects the current state of the science, has project

objectives, overall strategy, study design, methodology, and analyses that are well-reasoned and appropriate to accomplish the specific scientific objectives of the project, and includes a credible data management plan as described above.

- **Management Significance:** will address the degree to which a project addresses high priority items for regional Landscape Conservation Cooperatives (LCCs, http://www.fws.gov/landscape-conservation/lcc.html) and other management partners.
- **Coordination and Engagement with science beneficiaries:** will address two factors: (1) Degree of engagement and interaction between the study team and intended management beneficiaries, and (2) the degree to the project is coordinated or leveraged with other resources (including leveraging additional resources and complementing/integrating with existing work of the study team members).
- **Study Team qualifications:** will address applied and relevant past work, breadth of skill/knowledge to successfully perform the proposed research, and the integration, leadership, governance, and organizational approach of the investigator / study team. (As noted previously, applicants with significant issues regarding timely or effective completion of projects will be eliminated from further consideration until the issues are addressed to the satisfaction of the CSC and NCCWSC.)
- **Budget/work plan:** will address project budget and work plan in relation to the proposed level of work, expected benefits, complexity and/or scope of effort, and practicality and achievability of the proposed project.

5. Review and Selection Process: Project proposals will be evaluated as follows:

- Submissions will be screened by the relevant CSC upon receipt for eligibility and for conformance to the announcement provisions.
- Screened proposals will be reviewed against the criteria by a group of individuals with relevant technical expertise. Confidential information will be restricted to these reviewers, and they will be bound by confidentiality assurances. Further reviewers will follow standard conflict of interest approaches and will be excused from ranking proposals with which they are associated.
- Reviewer rankings and comments will be provided to the CSC Director. The CSC Director will develop a final list of candidate projects, based on the review rankings, modified as appropriate to ensure an overall portfolio of science activities at the CSC that is balanced 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.
- CSC Directors and the NCCWSC will review all proposed CSC projects to identify opportunities for cross-CSC and cross-agency leveraging opportunities. As noted, this may involve consultations with the applicant and proposal revision.
- Applicants will be notified of USGS intent to award. This is an informal notification, provided to applicants as a courtesy. Final awards are contingent upon all appropriate legal and

administrative reviews and processing. Final discretion on funding decisions for specific projects remains with the CSC Director and the NCCWSC.

Additional Considerations

Cross CSC collaboration: The regional CSCs are intended to operate as a network in which expertise at one CSC can/will be leveraged against expertise at other CSCs. Further, identification of projects that can be scaled up or combined with other projects to not only address the local science issue, but increase our understanding of regional and national implications of climate impacts will be important to assure we are making best use of our limited resources. To that end, we encourage projects to either form collaborations across CSC's in which expertise in each CSC is leveraged or develop projects that would have impacts beyond local scale to be developed.

Multiple Project Submissions: Applicants must state if they are listed on additional CSC proposals. CSCs and NCCWSC discourage applicants from submitting identical proposals to multiple CSCs. However, projects extending across multiple CSC regions are encouraged, and applicants considering such proposals should consult with the relevant CSC Directors.

Matching / Leveraging: While matching funds are not required, projects providing matching funds or leveraging other funding sources will be viewed favorably.

Multi-year Funding: (relevant especially to USGS proposers)**:** To address issues related to carry-over of federal funds between fiscal years, and to deal with the fact that this solicitation can only provide funds for the first fiscal year of the project, CSCs will work with successful applicants to plan funding for multi-year projects in the fiscal years needed by the project, within the limitations of knowledge about out-year funding.

Collaboration: Proposals with co-PIs from the USGS and a University consortium member are encouraged and will be evaluated more favorably. Likewise, proposals involving collaborations with other organizations (Federal, State, Tribal, or other), demonstrating the involvement and benefits of a collaborative effort will be evaluated more favorably.

Deliverables for Accepted Proposals: Principal Investigators for all invited proposals are required to prepare and submit to the funding CSC a *General Public Summary* that is written for a general public audience, does not exceed 200 words, and is suitable for sharing on public websites and other outreach methods. Key points to include:

- Why is the project important?
- Why should the public care?
- How will the results of the project improve aspects of climate change management, well-being, economic or other issues that resonate with stakeholders?

Execution of funding documents is contingent upon completing this step.

Annual and Final Project Reports: All projects are required to submit annual progress reports and a final project report. Each must be submitted within 90 days of the project award anniversary (for annual report) or project completion date (for final reports). In addition to the Federal Financial Report, Form SF-425, submitted via an on-line portal, each project must also complete annual or final reports according to the formats provided in **Appendix C** and **Appendix D**. Additional / more frequent reporting may be required by individual CSCs.

USGS Submission Portal
For All Statements of Interest (SOI) and Invited Proposals

(HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS)

Technical Assistance Contacts
For Portal Issues

Haylee Schweizer
schweizerh@usgs.gov
970-226-9160

Gail Montgomery
montgomeryg@usgs.gov
970-226-9253

For Substantive Issues Contact CSC Director/Staff (See CSC-Specific Sections)

CSC-specific Information:

(in the following order)

Following these CSC-specific sections are:

Statement of Interest format (Appendix A)

Invited Proposal Format (Appendix B)

Annual and Final Report Requirements (Appendix C and Appendix D)

ALASKA CLIMATE SCIENCE CENTER

This document addresses science planning for FY's 2013 and 2014, and new funding opportunities for FY 2014

Eligible Applicants:	Only members of the Alaska CSC host institution (University of Alaska Fairbanks) and USGS centers, field stations and laboratories may submit proposals in response to this Funding Opportunity. Other parties may participate on funded projects via subawards.
Funding process:	All funds will be transferred from the Alaska CSC to either a USGS entity or the University of Alaska Fairbanks. These entities may then provide subawards to other parties.
Estimated Available Funds:	Approximately $400,000 to $600,000 may be available to fund projects that support Alaska CSC science priorities in Fiscal Year 2014.
Project funding amount:	Individual project funds are not anticipated to exceed a total of $200,000 (inclusive of all indirect costs and overhead charges applied by all institutions involved).
Project Duration:	Not to exceed 24 months.
Alaska CSC Contact:	Dr. Stephen T. Gray, Director Alaska Climate Science Center 4210 University Dr. Anchorage, AK 99508 Office: 907-786-6780 Email: sgray@usgs.gov
Submission Portal:	**HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS Science needs:**

In fiscal years 2013 and 2014, the Alaska CSC will continue to address topics included in the Center's Strategic Plan (http://www.doi.gov/csc/alaska/upload/Alaska-Climate-Science-Center-Plan-FINAL-DRAFT-10-30-11.docx), which was developed in cooperation with the Alaska Climate Change Executive Roundtable (ACCER; http://www.doi.gov/csc/alaska/Stakeholder-Advisory-Council.cfm).

In Fiscal Year 2013, the Alaska CSC will provide continuing support to previously funded projects that address the following topical science needs:

1. Development and application of downscaled climate projections.
2. Integration of climate projections and ecological process and/or impact models.
3. Impact of glacier change on natural and cultural resources.

Additional information on specific science needs can be found in the Alaska CSC's 2012 Annual Action Plan (http://www.doi.gov/csc/alaska/upload/AK-CSC-annual-action-plan-2012.pdf). Relevant updates for 2013 and 2014 will be available at http://www.doi.gov/csc/alaska/science.cfm in late January 2013.

For Fiscal Year 2014, the Alaska CSC invites Statements of Intent (SOIs) that address the following topical science needs:

The Alaska Integrated Ecosystem Model project (AIEM; http://www.doi.gov/csc/alaska/upload/AlaskaIEM_Factsheet_April2012.pdf) is a multi-institutional and multi-disciplinary effort aimed at understanding potential landscape, habitat and ecosystem change in the Alaska region. We know that the physical and biotic components of high latitude ecosystems—hydrology, disturbance (e.g., fire), vegetation, and permafrost—are tightly linked and sensitive to climate. The AIEM provides a dynamical model framework that allows us to explore the impact of climate variability and change on these ecosystem components, while also addressing the interactions and feedbacks among components. The ultimate aim of the AIEM is to provide resource managers and decision makers with scenarios for potential changes in landscape structure and/or ecosystem structure and function. In turn, these scenarios are intended for use as inputs to resource- or sector-specific impact models and decision support tools.

Fiscal Year 2014 funding will be used to promote the initial development of AIEM-based resource impact models and decision support tools. SOIs are sought to address the following topics:

1. Use of AIEM output to assess the potential impact of permafrost change on existing infrastructure, infrastructure development, and access to land and resources over timeframes most relevant to the longer-term planning and strategic decision-making needs of the Alaska CSC's partners (http://www.doi.gov/csc/alaska/partners.cfm). A successful project will first identify areas with a moderate to high likelihood of permafrost loss or significant changes in permafrost dynamics over the next 10-50 yrs. In turn, a successful project will investigate the range of possible effects on infrastructure and access within these areas. Ideally proposals will consider a wide range of issues including the management of large natural areas (e.g., national parks), subsistence, community sustainability, tourism, industrial uses and development.

2. Use of AIEM output to assess the potential impacts of climate change on wildlife habitat within the Western Alaska LCC (http://www.arcus.org/western-alaska-lcc) and Northwest Boreal LCC (http://www.doi.gov/lcc/Northwestern-Interior-Forest.cfm). In particular, SOIs are sought to address transitions in forest ecosystems, including 1)

changes in forest species composition; 2) changes in forest structure, including conversion of forests to woodlands, shrublands or grasslands; and 3) expansion of forests into shrublands or grasslands. A successful project will first identify areas with a moderate to high likelihood of forest ecosystem change over 25, 50 and 75 year timeframes. In turn, a successful project will investigate the range of possible effects on wildlife habitats within these sensitive areas. Aspects of habitat quality or suitability to consider include structural characteristics (e.g., connectivity, availability of cover) and forage (e.g., nutritional content, spatial distribution). Successful projects will likely approach impacts to wildlife habitat from a mechanistic (e.g., models including complex dynamics and interactions) perspective. Proposals featuring correlative approaches (e.g., habitat envelope modeling) are discouraged. However, projects may use single species or a suite of species as model systems for understanding impacts at the regional-ecosystem level.

3. Use of AIEM output to assess the potential impacts of climate change on terrestrial and/or freshwater ecosystems within Southeastern Alaska, an area corresponding with the Alaska portion of the North Pacific LCC (http://www.fws.gov/pacific/Climatechange/nplcc/). The Alaska CSC will consider proposals on a range of topics including, but not necessarily limited to, implications of climate change for: water availability and runoff; forest ecosystem structure and function; carbon sequestration and biomass availability; non-native species; disturbance regimes, and; pathogens and insect outbreaks. Proposals that 1) provide information to guide additional AIEM development for Southeast Alaska, and/or 2) link AIEM output to the development of environmental monitoring networks are particularly encouraged. Ideally proposals will also demonstrate direct linkages to the human communities and unique cultural resources of Southeast Alaska.

In all cases, proposed work should be aimed at assessing climate change sensitivities at regional scales, but preference will be given to tools that are also applicable to planning and decision making at the local (e.g., community or resource management unit) level. Interactive tools that allow stakeholders to explore the impacts of multiple climate-change scenarios or to visualize potential changes over time are strongly encouraged. PI's will be expected to demonstrate the willingness and ability to work with Alaska CSC partners including state and federal resource management agencies and Alaska's Landscape Conservation Cooperatives.

Prospective investigators are strongly encouraged to contact the Alaska CSC Director (Dr. Steve Gray, sgray@usgs.gov) and AIEM Project Lead (Dr. Dave McGuire, admcguire@alaska.edu) for additional information on project timelines, model outputs, and stakeholder contacts. Please contact University Director Dr. Scott Rupp (tsrupp@alaska.edu) with any questions regarding University of Alaska Fairbanks policies and overhead.

Review Criteria:
The Alaska CSC will employ project review procedures as detailed in the Coordinated Funding

Opportunity (https://nccwsc.usgs.gov/ResearchFunds). Region-specific weighting of selection criteria and additional details follow.

Statements of Interest will be evaluated by the Alaska CSC using the following criteria and relative weightings:

- (30%) Engagement of stakeholders, decision makers, LCCs and other CSC partners. Preference will be given to investigators with either a strong history of partner engagement, or those demonstrating significant capacity for developing and maintaining these relationships, particularly as they may extend beyond the duration of project funding.
- (40%) Applicability to high-priority regional needs identified by the Alaska CSC and/or the CSC's regional partners. Projects that address needs across multiple partners are strongly encouraged. Additional information on scientific priorities and a list of partners can be found at:
    - http://www.doi.gov/csc/alaska/science.cfm
    - http://www.doi.gov/csc/alaska/partners.cfm
- (15%) Applicability to national, cross-cutting CSC program goals (See Coordinated Funding Opportunity, https://nccwsc.usgs.gov/ResearchFunds), and the goals of the National Climate Change and Wildlife Science Center (https://nccwsc.usgs.gov/).
- (15%) Scientific merit and quality of the research.

Full Proposals will be evaluated by the Alaska CSC using the following criteria and relative weightings:

- (25%) Scientific merit and quality of the proposed research.
- (20%) Management Significance. In addition to national standards discussed previously, projects will be evaluated based on their applicability to immediate, real-world planning and decision making needs as identified by resource management agencies in the Alaska Region.
- (30%) Coordination and Engagement. In addition to national standards discussed previously, potential investigators will be evaluated based on their capacity for engaging resource managers and decision makers during every phase of the project, and for a demonstrated commitment to continuing these relationships beyond the funded project's duration.
- (15%) Study Team qualifications.
- (10%) Budget/work plan.

Additional Information

- For additional information and updates on the Alaska CSC, please see:
    - http://www.doi.gov/csc/alaska/index.cfm
- Information Sessions:
    - The Alaska CSC will host a call-in session to address questions related to this solicitation on January 16, 2013 at 11:00 AM Alaska Standard Time. The call-in

number for this session will be 703-648-4848, Code 15405. Please RSVP to Steve Gray (sgray@usgs.gov) by COB January 14, 2013 if you wish to participate.
    - The Alaska CSC will present information on implementation of the Center's Strategic Plan and host an in-person Q&A session on this solicitation January 17, 2013 from 12:00 – 1:00 PM Alaska Standard Time at the USGS Alaska Science Center, Glenn Olds Hall Conference Room. Please contact Steve Gray (sgray@usgs.gov) for information on remote access.
- Contact information for Alaska region LCCs:

Aleutian and Bering Sea Islands LCC

Doug Burn	Coordinator	douglas_burn@fws.gov	907-786-3807
Aaron Poe	Science Coordinator	aaron_poe@fws.gov	907-786-3834

Arctic LCC

Greg Balogh	Coordinator	greg_balogh@fws.gov	907-786-3605
Philip Martin	Science Coordinator	philip_martin@fws.gov	907-456-0327

Northwest Boreal LCC

John DeLapp	Coordinator	john_delapp@fws.gov	907-786-3925
Amanda Robertson	Science Coordinator	amanda_robertson@fws.gov	907-456-0445

North Pacific LCC

John Mankowski	Coordinator	john_mankowski@fws.gov	360-534-9330
Mary Mahaffy	Science Coordinator	mary_mahaffy@fws.gov	360-753-7763

Western Alaska LCC

Karen Murphy	Coordinator	karen_a_murphy@fws.gov	907-786-3501
Joel Reynolds	Science Coordinator	joel_reynolds@fws.gov	907-786-3914

- NOTE RE: PASS THROUGH INDIRECT COSTS: Applicants at academic institutions other than the University of Alaska Fairbanks must include an amount to cover indirect costs at University of Alaska Fairbanks for this pass through. It is the policy of University of Alaska Fairbanks to apply indirect charges in the amount of 49.5% to the first $25,000 any funds passed through to a third institution. Please include the appropriate indirect charges on the budget sheets for your proposal. Contact University Dr. Scott Rupp (tsrupp@alaska.edu) for additional information.

NORTH CENTRAL CLIMATE SCIENCE CENTER

This Funding Opportunity addresses funding for both FY 2013 and FY 2014

Eligible Applicants: Only members of the NORTH CENTRAL CLIMATE SCIENCE CENTER (NC CSC) University Consortium (see table below) and USGS centers, field stations and laboratories may submit proposals in response to this Funding Opportunity. Consortium-initiated proposals must be submitted though Colorado State University (CSU). Other parties may participate on funded projects via subawards.

NC CSC University consortium (listed alphabetically):

Colorado School of Mines
Colorado State Univ.
Iowa State Univ.
Kansas State Univ.
Montana State Univ.
Univ. of Colorado
Univ. of Montana
Univ. of Nebraska-Lincoln
Univ. of Wyoming

Funding process: All funds will be transferred from NC CSC to either a USGS entity or CSU. These entities may then provide subawards to members of the CSC consortium or other parties.

Estimated Available Funds: Approximately $1,000,000 may be available to fund projects that support NC CSC science priorities, with funds being distributed in Fiscal Year 2013 and 2014.

Project funding amount: Total funding for individual projects will not exceed $450,000.

Project Duration: Not to exceed 36 months.

NC CSC Contact: Dr. Jeff Morisette, Director
NC Climate Science Center
Natural Resource Ecology Lab
Dept. 1499
Colorado State University
Ft. Collins, CO 80523-1499
Office: 303-968-8986
Email: morisettej@usgs.gov

Submission Portal: HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS

Science needs:
NC CSC is primarily looking to forge stronger connections with current management decision processes. The North Central Climate Science Center (NC CSC) believes the strongest need at this point is to demonstrate how climate science can be integrated into resource management decision making process. Thus, a primary consideration for this solicitation is a strong connection to and integration with a decision making process. Examples include a species or habitat conservation decision, dam releases and stream flow management, and location of energy development; additional examples are listed in the document link below.

Review Criteria: Detailed weighting for the criteria listed above for the NC CSC are given here, with details on each criteria given in the NC CSC specific NEED and CRITERIA document:

- **Scientific merit and quality of the proposed research: 20%**
- **Management Significance: 20%**
- **Coordination and Engagement: 25%**
- **Study Team qualifications: 20%**
- **Budget/work plan: 15%**

THE FOLLOWING LINK PROVIDES ACCESS TO A DOCUMENT WITH MORE DETAILS ON THE NC CSC-SPECIFIC NEEDS AND CRITERIA. IT IS CRITICAL THAT PROPOSER READ THE MORE DETAILED DOCUMENT TO PROPERLY RESPOND TO THIS SOLICITATION:
HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS

Additional Information

- Background information on the North Central Climate Science Center can be found at revampclimate.colostate.edu
- The North Central Climate Science Center will host two questions and answer sessions pertaining to this solicitation:
  Tuesday, January 15, 2013, 11:00 Mountain time:
  https://usgs.webex.com/usgs/j.php?ED=189306927&UID=482885877&RT=MiM2
  Teleconference: 703-648-4848, passcode: 67416#
  Thursday, January 17, 2013, 2:00pm Mountain time:
  https://usgs.webex.com/usgs/j.php?ED=189306957&UID=482885877&RT=MiM2
  Teleconference: 703-648-4848, passcode: 67416#
- NOTE RE: PASS THROUGH INDIRECT COSTS – FOR CONSORTIUM SUBMISSIONS ONLY:
  All proposals submitted by the CSC Consortium must be submitted by Colorado State University. Applicants at other consortium institutions must include an amount to cover indirect costs at CSU for this pass through. It is the policy of CSU to apply indirect charges (in the amount of 31.3% to be applied to the first $25,000 any funds passed through to a third institution. Please include the appropriate indirect charges on the budget sheets for your proposal.

For questions on charges applied by CSU, please contact:

Neil Shropshire
Colorado State University,
Research Coordinator, Natural Resource Ecology Lab
(970) 491-4933
Neil.Shropshire@ColoState.EDU

NORTHEAST CLIMATE SCIENCE CENTER

This Funding Opportunity addresses funding for FY 2013

Eligible Applicants: Only members of the Northeast Climate Science Center (NE CSC) Consortium [see table below] and USGS centers, field stations and laboratories may submit proposals in response to this Funding Opportunity. Other parties may participate on funded projects via subawards.

NE CSC Consortium Members and Lead Contacts:

NE CSC Consortium Member	Lead Contact
University of Massachusetts (Amherst)- host institution	**Richard Palmer;** http://necsc.umass.edu/people/richard-palmer
College of Menominee Nation	Chris Caldwell; http://necsc.umass.edu/people/chris-caldwell
Columbia University	Radley Horton; http://necsc.umass.edu/people/radley-horton
Marine Biological Laboratory	Linda Deegan, (contact Chris Neill at cneill@mbl.edu); http://necsc.umass.edu/people/linda-deegan
University of Minnesota (Twin Cities)	Anthony D'Amato; http://necsc.umass.edu/people/anthony-damato
University of Missouri (Columbia)	Frank Thompson; http://necsc.umass.edu/people/frank-thompson
University of Wisconsin (Madison)	Kenneth Potter; http://necsc.umass.edu/people/kenneth-potter

Funding process: All funds will be transferred from the NE CSC to either a USGS entity or University of Massachusetts Amherst (UMass Amherst). These entities may then provide subawards to members of the NE CSC Consortium or other parties.

Estimated Available Funds: Approximately $650,000 may be available to fund projects that support NE CSC science priorities in Fiscal Year 2013.

Project funding amount: Individual project funds will not exceed a total of $200,000.

Project Duration: Not to exceed 24 months.

NE CSC Contacts:

Dr. Mary J. Ratnaswamy
Federal Director, DOI Northeast Climate Science Center
Department of Geosciences
233 Morrill Science Center
611 North Pleasant Street
University of Massachusetts
Amherst, MA 01003-9297
Office: (413) 545-3424
Email: mratnaswamy@usgs.gov

Dr. Richard N. Palmer
University Director, DOI Northeast Climate Science Center
Department Head and Professor
Civil and Environmental Engineering
222 Marston Hall
University of Massachusetts
130 Natural Resources Road
Amherst, MA 01003-9293
Office: (413) 545-2508
Email: palmer@ecs.umass.edu

Submission Process:

HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS

All Statements of Interest (SOI) and Proposals are to be submitted via the U.S. Geological Survey proposal management portal (HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS above). University-based proposals must be submitted by UMass Amherst, the NE CSC host institution.

SCIENCE PRIORITIES

The NE CSCs objective is to address the regional challenges presented by climate change and variability in the NE CSC region. To view a map of the NE CSC region, go to: https://nccwsc.usgs.gov/sites/default/files/files/CSC_consortia_and_regions.pdf. The NE CSCs focus is to identify climate science needs that apply across the entirety of the NE CSC region and provide regional-scale science products that inform conservation management. The NE CSC will also build on previously funded research, complementary research efforts across the CSC and LCC network, and relevant climate science programs ongoing in the region.

In Fiscal Year 2013, the NE CSC is interested in inviting Statement of Intents (SOIs) that address the following eight topical science priorities within the overarching priority Science Themes identified in the NE CSC draft five-year Science Agenda (revision date 11.20.12):

Science Theme: Climate impacts on freshwater resources and ecosystems

Priority 1.--Effects of climate change and land-use patterns on stream and river flow, stream temperature, and environmental extremes with implications for aquatic and riparian biota

Priority 2.--Effects of climate change on limnology and ecology of the Great Lakes with implications for sustainable fisheries and adaptive management of Great Lakes ecosystems

Priority 3.--Effects of climate change and surrounding land-use practices on wetland biogeochemistry, hydrology, ecology, and vulnerability, including impacts to wetland-dependent biota and alterations to ecosystem services

Science Theme: Climate impacts on land-use and land-cover change

Priority 4.--Effects of climate change and land-use changes on forest distribution, composition, condition, vulnerability to disturbance, and resilience of forest ecological functions and ecosystem services

Science Theme: Ecosystem vulnerability and species response to climate variability and change

Priority 5.--Effects of climate change and environmental stressors on prairie ecosystems with implications for adaptive management of grassland bird communities and restoration of prairie ecosystems/landscapes

Priority 6.--Effects of climate change on forests and headwaters with implications for vulnerability and adaptive management of migratory bird communities, aquatic and riparian forest biota, migratory bats, or other forest-dependent biota

Science Theme: Impacts of climate variability and change on cultural resources

Priority 7.--Effects of climate change on the sustainability of natural and cultural resources, including approaches that utilize traditional ecological knowledge, human dimensions, and adaptation strategies

Science Theme: Decision frameworks for evaluating risk and managing natural resources under climate change

Priority 8.--Development of decision frameworks such as structured decision making to advance the understanding of climate change uncertainties and enhance planning and communication tools for climate adaptation strategies

Detailed information on the NE CSC and the NE CSC Fiscal Year 2013 Science Priority Needs listed above can be found in the NE CSC SCIENCE NEEDS and REVIEW CRITERIA document link below

STATEMENT OF INTEREST

Statement of Interest Evaluation Criteria: Detailed weighting for the Statement of Interest (SOI) evaluation criteria for the NE CSC are given here.

- Applicability to one or more NE CSC science priority needs (relevance/applicability): 30%
- Scientific merit and quality of the research (scientific design): 30%
- Engagement of stakeholders, decision makers, and research entities (partnerships): 30%
- Potential for cross CSC collaboration (national program applicability): 10%

The NE CSC will add or subtract from SOI scores for each criterion based on specific factors discussed in the NE CSC SCIENCE NEEDS and REVIEW CRITERIA document link below.

Additional SOI Evaluation Considerations: In addition to the evaluation criteria listed above, SOIs that include one or more of the elements listed below will be evaluated more favorably.

- Leveraging of science needs, funds, and/or science capacity and collaboration

More information on additional considerations for SOI evaluation by the NE CSC can be found in the NE CSC SCIENCE NEEDS and REVIEW CRITERIA document link below.

FULL PROPOSAL (by invitation only following SOI evaluation by the NE CSC)

Proposal Review Criteria: Detailed weighting for the proposal review criteria for the NE CSC are given here.

- Scientific merit and quality of proposed research (scientific design): 30%
- Management significance (relevance/applicability to management needs): 30%
- Coordination and engagement (working partnerships and knowledge transfer): 20%
- Study team qualifications (scientific expertise): 10%
- Budget/work plan (leveraging & capacity building): 10%

The NE CSC will add or subtract from proposal scores for each review criterion based on specific factors discussed in the NE CSC SCIENCE NEEDS and REVIEW CRITERIA document link below.

Additional Proposal Review Considerations: In addition to the review criteria listed above, proposals that include one or more of the elements listed below will be evaluated more favorably.

- Leveraged science needs
- Leveraged funds
- Leveraged science capacity and collaboration

More information on additional considerations for proposal review by the NE CSC can be found in the NE CSC SCIENCE NEEDS and REVIEW CRITERIA document link below.

Additional Information

- Background information on the NE CSC can be found at http://www.doi.gov/csc/northeast, https://nccwsc.usgs.gov, or at http://necsc.umass.edu.

- The NE CSC will host two Question-and-Answer Sessions pertaining to this solicitation on:
  Monday January 14, 2013, 11:00 AM Eastern Standard Time: https://usgs.webex.com/usgs
  Phone: (703-648-4848), code (17236#)
  Webinar Meeting: NE CSC FY13 SOI Solicitation
  Meeting number: 716 174 014
  Meeting password: This meeting does not require a password (leave this field blank)
  To register for this webinar meeting (registration is required) go to:
  https://usgs.webex.com/usgs/j.php?ED=190302412&UID=497986077&RT=MiMxMQ%3D%3D.

  Tuesday January 22, 2013, 10:00 AM Eastern Standard Time
  Phone: (703-648-4848), code (17236#)
  Webinar Meeting: NE CSC FY13 SOI Solicitation
  Meeting number: 713 664 539
  Meeting password: This meeting does not require a password (leave this field blank)
  To register for this webinar meeting (registration is required) go to:
  https://usgs.webex.com/usgs/j.php?ED=190302422&UID=497986077&RT=MiMxMQ%3D%3D

  Additional webinar instructions: Click on the meeting link provided. Once registration has been submitted, your name will be added to the registry for the webinar and you will receive an email with instructions on how to join the webinar via the WebEx platform. If you are having problems with the link, go to https://usgs.webex.com and search for the meeting by name and time. For questions or problems with the WebEx, please contact Dianna Crilley (dcrilley@usgs.gov)

- NOTE RE: PASS THROUGH INDIRECT COSTS – FOR CONSORTIUM SUBMISSIONS ONLY: All proposals submitted by the NE CSC Consortium must be submitted by UMass Amherst. Applicants at other consortium institutions must include an amount to cover indirect costs at UMass Amherst for this pass through. It is the policy of UMass Amherst to apply indirect charges (in the amount of 51.5% to be applied to the first $25,000 any funds passed through to a third institution). Please include the appropriate indirect charges on the budget sheets for your proposal.

- NOTE RE: MULTI-YEAR FUNDING (FOR CONSORTIUM SUBMISSIONS ONLY): To address issues related to carry-over of federal funds between fiscal years, and to deal with the fact that this solicitation can only provide funds for the first fiscal year of the project, CSCs will work with successful applicants to plan funding for multi-year projects in the fiscal years needed by the project, within the limitations of knowledge about out-year funding.

- Proposing teams are encouraged to consult or collaborate with one or more LCC in the NE CSC region in defining the problems and decisions to be addressed. For more information on LCCs in the NE CSC region, go to http://www.fws.gov/landscape-conservation/lcc.html or visit https://nccwsc.usgs.gov/?q=relationshipCSCs_LCCs for an explanation of how CSCs are related to LCCs.

  Landscape Conservation Cooperative partners in the NECSC Region (listed alphabetically)

Landscape Conservation Cooperative	Science Coordinator
Appalachian; http://www.applcc.org	Bridgett Costanzo; bridgett_costanzo@fws.gov
Eastern Tallgrass Prairie and Big Rivers; http://www.tallgrassprairielcc.org	Gwen White; gwen_white@fws.gov
Gulf Coastal Plains and Ozarks; http://gcpolcc.org	John Tirpak; john_tirpak@fws.gov
North Atlantic; http://www.northatlanticlcc.org	Scott Schwenk; william_schwenk@fws.gov
Plains and Prairie Potholes; http://www.plainsandprairiepotholeslcc.org	Mike Olson; michael_olson@fws.gov
South Atlantic; http://www.southatlanticlcc.org	Rua Mordecai; rua_mordecai@fws.gov
Upper Midwest and Great Lakes; http://www.greatlakeslcc.org	Bradly Potter; bradly_potter@fws.gov

- Proposing teams are encouraged to consult or collaborate with other Federal agencies having climate variability and change programs. These agencies include among others: U.S. Geological Survey (http://www.usgs.gov/climate_landuse); National Oceanic and Atmospheric Administration (http://www.climate.noaa.gov); U.S. Environmental Protection Agency http://www.epa.gov/climatechange); and U.S. Fish and Wildlife Service (http://www.fws.gov/home/climatechange).

- The U.S. Geological Survey and the NE CSC are currently developing consultation strategies with Native American Tribes in the NE CSC region. If interested in collaboration with Tribe(s) in the NE CSC region, please contact the NE CSC Director.

The following URL provides more detail on NE CSC SCIENCE NEEDS and REVIEW CRITERIA: HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS

NORTHWEST CLIMATE SCIENCE CENTER

This Funding Opportunity addresses funding for FY 2014

Eligible Applicants:	Only members of the Northwest Climate Science Center (NW CSC) consortium[1] and USGS centers, field stations and laboratories may submit proposals in response to this Funding Opportunity. Consortium-initiated proposals must be submitted through Oregon State University (OSU), the NW CSC host university. Other parties may participate on funded projects via subawards.
Funding process:	All funds will be transferred from the NW CSC to either a USGS entity or OSU. These entities may then provide subawards to members of the NW CSC consortium or other parties.
Estimated Available Funds:	The NW CSC budget depends on Congressional funding, making it difficult to anticipate the funds available to support NW CSC science priorities in FY 2014. Our best estimate at this time is that these funds may reach approximately $1 million.
Project Funding Amount:	Individual project funds will not exceed a total of $200,000 per year (inclusive of all indirect costs and overhead charges applied by all institutions involved).
Project Duration:	Not to exceed 24 months.
NW CSC Contact:	Dr. Gustavo Bisbal, Director Northwest Climate Science Center 326 Strand Hall, Oregon State University Corvallis, OR 97331 Phone: 541-737-2525 Email: gbisbal@usgs.gov
Submission Portal:	**HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS**

Science needs: Research funded by the Northwest Climate Science Center (NW CSC) focuses on the climate science needs of its partner Landscape Conservation Cooperatives (the Great Basin, Great Northern, and North Pacific LCCs), federal, state, and tribal natural and cultural resource managers, and other stakeholders in the Northwest. The science and management needs vary greatly across the region, as the NW CSC area extends across Washington, Oregon, Idaho, and western Montana and includes terrestrial, freshwater, and nearshore marine ecosystems.

[1] Institutions that participate in the NW CSC academic consortium include: Boise State University, Idaho National Laboratory, Idaho State University, Montana State University, Oregon Health and Science University, Oregon State University, Pacific Northwest National Laboratory, Portland State University, University of Idaho, University of Montana, University of Oregon, University of Washington, Washington State University, and Western Regional Climate Center.

With guidance from its Executive Stakeholder Advisory Committee (ESAC), the NW CSC is continuing to address the climate science needs described in the Science Agenda for 2012-2015 ("Agenda") (http://www.doi.gov/csc/northwest/Climate-Science-Agenda.cfm). In FY 2014, the NW CSC invites Statements of interest (SOI) that address one or more of the scientific topics below, which have been determined by the ESAC to be the highest priority research needs for the Northwest. Projects that aim to produce resource management-relevant information and products and/or actively engage with the intended users of the scientific output are highly encouraged and will be ranked higher in the SOI and proposal review process.

NW CSC FY 2014 Science Needs

Response of Physical Systems to Climate Change (Agenda theme 2)

1. Agenda sub-theme 2a: **Advance understanding of the response of hydrologic systems to future climate**, including changes in snow hydrology, alpine glaciers, streams (both perennial and intermittent), lakes (both lotic and lentic systems), groundwater systems, wetlands, water temperature, water quality, and extreme events. This need relates to effects on aquatic habitat, as well as the timing and amount of water available for agricultural and municipal use, recreation, wildlife and stock use, and power generation. The hydrologic response also affects understanding of drought, flood risk, reservoir operations, and land management. NW CSC partners are particularly interested in research on drought as it relates to ecosystem services and land management concerns, including, for example, changing vegetation patterns that alter water storage in forest and rangeland watersheds, increasing fire frequency or severity, and changing stream flows that might impact downstream water quantity and quality, management of watersheds, or municipal water delivery.

Response of Biological Systems to Climate Change (Agenda theme 3)

2. Agenda sub-theme 3b: **Improve understanding of threats to habitat connectivity and potential for fragmentation of terrestrial, aquatic, marine, and nearshore habitats.** This topic is of fundamental importance to resource managers and policy makers in the region, as they must understand and balance plant and animal habitat needs in relation to climate change and related stressors (e.g., extreme weather events, sea level rise, land use change). For freshwater systems, understanding, for example, how temperature, flow, bed scour, erosion, and elevated flood potential may be altered by climate change will be critical for maintaining habitat connectivity. For terrestrial systems, understanding climate change effects on the dispersal of keystone species (for example, big sagebrush) or on community level attributes, such as the distributions of co-evolved plant species that define vegetative cover and habitat for other species, may assist in incorporating connectivity into management planning for assisted migrations.

3. Agenda sub-theme 3c: **Continue to advance understanding and modeling of changes in fire regimes.** In light of recent severe fire seasons, understanding how fire regimes will change in a future climate has become increasingly urgent. Examples of information that

may be useful to Northwest resource managers include how fire frequency and severity will be altered or how fire regime changes will affect ecosystem processes, habitat quality and connectivity, or plant and animal species of concern. Further considerations include how future precipitation timing and form, snowmelt timing and rate, drought, and wind patterns will affect fuel moisture and contribute to patterns of fire initiation, extent, and severity. How will climate factors affect soil moisture and influence the effectiveness of post-fire revegetation (natural or management-driven), and how can managers use that information to design landscape-scale fire rehabilitation strategies?

4. Agenda sub-theme 3f: **Improve understanding of potential changes in phenology (relative timing of physical and biological cycles) and related monitoring needs.** Understanding changes in the timing of growth, pollination, reproduction, and migration is critical to managing plant and animal populations under future climate. Management applications may include, for example, examining if phenological changes within communities alter co-dependent species' fitness or ability to adapt to new conditions, understanding how species of concern will be affected by altered timings of predator and prey population events, and determining whether assisted migrations are feasible and warranted.

Vulnerability and Adaptation (Agenda theme 4)

5. Agenda sub-theme 4a: **Assess the vulnerabilities (as well as resiliencies) of terrestrial, aquatic, and near-shore marine ecosystems, as well as individual species and populations, to climate change and non-climate change stressors.** Vulnerability assessments are the first step in determining which habitats and populations are most threatened by climate change and developing mitigation and adaptation strategies. Examples of scientific outputs that may be valuable to resource managers and policy makers include vulnerability maps for species of concern, reviews of existing vulnerability assessments (including syntheses of what is known at species, community, and ecosystem levels), and assessments of what information is still needed.

Evaluation of Statements of Interest: the NW CSC will instruct the Expert Review Team to use the following criteria to evaluate SOIs, according to specific weights (in parentheses):

- (30%) Project clearly demonstrates its applicability to addressing the NW CSC Climate Science Agenda (http://www.doi.gov/csc/northwest/Climate-Science-Agenda.cfm) and helps us understand the interactions between climate and the physical, biological, and chemical forces that influence the structure and functioning of ecosystems and the goods and services they provide. Where possible, it makes connections to human dimensions of the project topic (i.e., safety, health, social, economic, etc.) to help us understand the social-ecological impacts of climate change.
- (30%) Project identifies relevancy of expected results to natural and cultural resource managers. Project describes plans to actively engage with the intended users of the

scientific output (e.g., inclusion of managers on study teams, periodic "check-in" meetings with stakeholders, creation of practitioner advisory teams, etc.) in order to provide resource management-relevant information and products.
- (20%) Scientific soundness of overall methodological approach of the project.
- (20%) Project builds upon existing work and capacity or complements related climate research underway in the Northwest and/or in other CSC regions, and describes applicability to national, cross-cutting CSC program goals (See Coordinated Funding Opportunity, HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS). Project establishes collaborations beyond local or regional scales and leverages expertise across CSCs, to help us understand regional and national implications of climate impacts.

Evaluation of Invited Proposals: The information that follows provides additional details for the application of the five proposal review criteria listed in Section 4 above and describes specific weights (in parentheses) that will be applied by the NW CSC Expert Review Team to each of them.

1. **(30%) Scientific Merit and Quality of Proposed Research (Scientific Design)**
   (See national standards discussed previously)

2. **(30%) Management Significance (Relevance/Applicability to Management Needs)**
   In addition to national standards discussed previously, projects will be evaluated based on their applicability to immediate, real-world planning and decision making needs as identified by resource management agencies in the Northwest Region. This evaluation criterion will also consider the following elements:
   - Proposal identifies relevancy of project results to land, fish, wildlife, habitat, or cultural resource management issues;
   - Project addresses management decisions or questions important to one or more LCC or Federal, State, or Tribal resource management organization;
   - Proposal demonstrates how the research to be conducted and scientific outcomes will bring value-added to resource questions and management decisions.

3. **(20%) Coordination and Engagement with science beneficiaries (Working Partnerships and Knowledge Transfer)**
   In addition to national standards discussed previously, this evaluation criterion will also consider the following elements:
   - Proposal identifies collaborative partners (Federal, State, Tribal, or other) that will participate meaningfully in the project;
   - Intended users of the scientific output of the project (e.g., resource managers and decision makers) are adequately engaged in the planning and administration of the proposed project;
   - Project study design includes outreach components to disseminate research findings and information;

4. **(10%) Study Team Qualifications (Scientific Expertise)**
   (See national standards discussed previously)
5. **(10%) Budget/Work Plan (Leveraging & Capacity Building)**
   In addition to national standards discussed previously, this evaluation criterion will also consider the following elements:
   - Proposed budget and requested resources are reasonable, work plan is practical and achievable for the proposed level of work and expected benefits;
   - Project work provides opportunities to young researchers and/or includes post-doctoral research participation;

Additional Information

- Background information on the Northwest Climate Science Center and useful contacts can be found at http://www.doi.gov/csc/northwest.
- The NW CSC will host two call-in sessions to address questions on this solicitation.
  - 16 January 2013, 2:00 to 3:00 pm Pacific Time
  - 18 January 2013, 9:00 to 10:00 am Pacific Time
  - Call-in number for both sessions: 703-648-4848 or 855-547-8255, Code 57166#
- Proposing teams are encouraged to consult with one or more Landscape Conservation Cooperatives (LCCs) or Tribes in the NW CSC region in defining the problems and decisions to be addressed.

Primary LCCs and LCC Science Coordinators in the NW CSC Domain

LCC	LCC Science Coordinator	Contact email address
North Pacific www.fws.gov/pacific/Climatechange/nplcc/	Mary Mahaffy	Mary_mahaffy@fws.gov
Great Basin www.greatbasinlcc.org	Todd Hopkins	Todd_hopkins@fws.gov
Great Northern greatnorthernlcc.org	Sean Finn	Sean_finn@fws.gov

- **FOR CONSORTIUM SUBMISSIONS ONLY**: PASS THROUGH INDIRECT COSTS –
  All proposals submitted by a member of the NW CSC Consortium must be submitted through and by OSU. Applicants at consortium institutions must include $11,500 to cover indirect costs at OSU for this pass through award. It is the policy of OSU to apply indirect charges on NW CSC Consortium awards that go to other Consortium entities. In order to accommodate this cost, other Consortium entities are limited to a maximum of $188,500 per individual project. Please include the appropriate indirect charges on the budget sheets for your proposal.

  For questions on charges applied by OSU, please contact:
  Patricia Hawk, Director
  Oregon State University, Office of Sponsored Programs
  Phone (541) 737-4933, email: Patricia.Hawk@oregonstate.edu

- **FOR USGS SUBMISSIONS ONLY**:
  For administrative and funding questions for project proposals submitted by a USGS PI, please contact:
  Robert (Bob) Spain, Administrative Officer
  Forest & Rangeland Ecosystem Science Center, U.S. Geological Survey
  Phone (541) 750-1034, email: rspain@usgs.gov

PACIFIC ISLANDS CLIMATE SCIENCE CENTER

This Funding Opportunity addresses funding for FY 2013

Eligible Applicants:	Only members of the Pacific Islands Climate Science Center (PI CSC) consortium, its institutional partners[2], and USGS centers, field stations and laboratories may submit proposals in response to this Funding Opportunity. Consortium-initiated proposals must be submitted through the University of Hawai'i (UH), the PI CSC host university. Other parties may participate on funded projects via subawards.
Funding process:	All funds will be transferred from the PI CSC to either a USGS entity or UH. These entities may then provide subawards to members of the PI CSC consortium or other parties.
Estimated Available Funds:	Approximately $900,000 may be available to fund projects that support PI CSC science priorities in Fiscal Year 2013.
Project Funding Amount:	Individual project funds will not exceed a total of $250,000 (inclusive of all indirect costs and overhead charges applied by all institutions involved).
Project Duration:	Not to exceed 24 months.
PI CSC Contact:	Dr. Gustavo Bisbal, Director Northwest Climate Science Center 326 Strand Hall, Oregon State University Corvallis, OR 97331 Phone: 541-737-2525 Email: gbisbal@usgs.gov
Submission Portal:	**HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS**

Science needs: Research funded by the Pacific Island Climate Science Center (PI CSC) focuses on the climate science needs of its partner Landscape Conservation Cooperative (the Pacific Islands Climate Change Cooperative), federal, state natural and cultural resource managers, and other stakeholders in the Pacific Islands. Projects that aim to produce resource management-relevant information and products and/or actively engage with the intended users of the

[2] The PI CSC academic consortium includes the University of Guam, University of Hawai'i – Hilo, and University of Hawai'i – Manoa; institutional partners include Carnegie Institution for Science, Pacific Regional Integrated Science and Assessment (Pacific RISA), Stanford University, University of California – Santa Barbara, Yale University, USDA Forest Service.

scientific output are highly encouraged and will be ranked higher in the proposal review process. In FY 2013, the PI CSC invites Statements of Interest (SOIs) addressing one or more of the following four science needs:

Responses of Dominant Ecosystem Elements to Change

Studies addressing this need should elucidate the responses of dominant ecosystem elements (such as native or invasive species, populations, and/or communities, as well as ecosystem functions, processes, and services) to large-scale anthropogenic drivers of change (such as changing temperatures, precipitation, drought, storm frequency and/or intensity, sea level rise, and ocean chemistry). Projects should demonstrate links between resource managers or policy makers and information resulting from the research. Ecosystem types of high interest include coastal, terrestrial, and freshwater. Projects focused on Guam, the Mariana Islands, and American Samoa are especially encouraged.

Examples of potential studies falling under this science information need include: empirical validation of ecological parameters used in current models or those under development, case studies of effects of aspects of climate change on dominant or other species important to managers (e.g., Endangered Species), studies estimating and addressing the implications of altered ecosystem services for use by managers in adaptation planning, models of effects of sea level rise on coastal water quality, and vulnerability assessments.

Because of efficiencies and insights that would be gained, it is anticipated and recommended that studies addressing this science need will incorporate elements of the next need (Ecosystem Characterization) into their design, information collected, results, and products.

Ecosystem Characterization

Understanding the responses of biota to climate change requires documenting shifts within ecosystems (e.g., ranges of species, populations, and communities; energy and nutrient cycling; and production) as well as shifts in the boundaries of ecosystems themselves. It would be useful, therefore, to describe and characterize Pacific Island ecosystems as they continue to respond to a changing climate.

Proposed projects addressing this science need might create or use data from field or experimental studies or available spatial environmental datasets to develop methods to characterize or visualize landscapes or ecosystems in the Pacific Islands, resulting in information relevant and useful to resource managers and policy makers. Examples of potential research questions include: How can Pacific Island ecosystems be delineated from functional, process, or services perspectives? How can landscapes be characterized as the climate changes? What are the limitations of remotely-sensed data in characterizing landscapes? Due to the natural link

between this science need and the one previous (Responses of Dominant Ecosystem Elements to Change), applicants may propose to address both needs in one proposal.

Regionalized Climate Modeling

Studies under this science need would aim to develop or consolidate foundational data, to document past changes and trends observed historically or revealed by proxy variables, or model such changes in the future under several climate change scenarios. Projects are encouraged that identify clear links between the research and management decision making, use state-of-the-art models and/or analytical methods (e.g., ensemble projections), use multiple emissions scenarios and time points, are as fine-scale as possible, and link with long-term monitoring systems.

Examples of potential studies falling under this science need include: downscaled (dynamical or statistical) climate models for the Pacific, especially for Oahu and the island of Hawai'i, regional models downscaled to a scale relevant to better understand and predict extreme weather events such as tropical cyclones, and developing a monitoring strategy for the Hawaiian or other island groups that assesses current monitoring efforts and proposes an integrated biological-climate monitoring system to support ecological response modeling and validation of future climate projections and the biological response projections.

Socio-ecological Modeling of the Dynamics between Human Communities and Climate Change in the Pacific Islands

Socio-ecological models are needed that reflect the dynamic interactions between human communities and the ecosystems they rely on and how these relationships are altered under different climate scenarios. For this solicitation, the PI CSC is particularly interested in studies examining the effects of one of the following climate related stressors on human communities in the Pacific Islands under different climate scenarios: (1) projected or ongoing sea level rise and (2) the severe degradation and/or loss of coral reefs.

Proposed projects for this science need should examine the interaction between human communities and either sea level rise or the severe degradation/loss of coral reefs in the Pacific Islands. Projects could be focused at the regional, archipelago, island, or community levels, should integrate projected futures from the most appropriate models, and include ecological (e.g., fish production, effect on shoreline, biodiversity, ecosystem function and services) and sociological (e.g., subsistence and commercial fishing, tourism, infrastructure, agriculture, cultural landscapes and practices, community relocation) components.

Evaluation of Statements of Interest: the PI CSC will instruct the Science Implementation Panel to use the following criteria to evaluate SOIs, according to specific weights (in parentheses):

- (30%) Project clearly demonstrates its applicability to addressing the PI CSC science needs as described above and helps us understand the interactions between climate and the physical, biological, and chemical forces that influence the structure and functioning of ecosystems and the goods and services they provide. Where possible, it makes connections to human dimensions of the project topic (i.e., safety, health, social, economic, etc.) to help us understand the social-ecological impacts of climate change.
- (30%) Project identifies relevancy of expected results to natural and cultural resource managers. Project describes plans to actively engage with the intended users of the scientific output (e.g., inclusion of managers on study teams, periodic "check-in" meetings with stakeholders, creation of practitioner advisory teams, etc.) in order to provide resource management-relevant information and products.
- (20%) Scientific soundness of overall methodological approach of the project.
- (20%) Project builds upon existing work or complements related climate research underway in the Pacific Islands and/or in other CSC regions, and describes applicability to national, cross-cutting CSC program goals (See Coordinated Funding Opportunity, **HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS**). Project establishes collaborations beyond local or regional scales and leverages expertise across CSCs, to help us understand regional and national implications of climate impacts.

Evaluation of Invited Proposals: The information that follows provides additional details for the application of the five proposal review criteria listed in Section 4 above and describes specific weights (in parentheses) that will be applied by the PI CSC Science Implementation Panel to each of them.

6. **(30%) Scientific Merit and Quality of Proposed Research (Scientific Design)**
   (See national standards discussed previously)

7. **(30%) Management Significance (Relevance/Applicability to Management Needs)**
   In addition to national standards discussed previously, projects will be evaluated based on their applicability to immediate, real-world planning and decision making needs as identified by resource management agencies in the Pacific Island Region. This evaluation criterion will also consider the following elements:
   - Proposal identifies relevancy of project results to land, fish, wildlife, habitat, or cultural resource management issues;
   - Project addresses management decisions or questions important to one or more LCC, Federal, or State resource management organization;
   - Proposal demonstrates how the research to be conducted and scientific outcomes will bring value-added to resource questions and management decisions.

8. **(20%) Coordination and Engagement (Working Partnerships and Knowledge Transfer)**
   In addition to national standards discussed previously, this evaluation criterion will also consider the following elements:

- Proposal identifies collaborative partners (Federal, State, or other) that will participate meaningfully in the project;
- Intended users of the scientific output of the project (e.g., resource managers and decision makers) are adequately engaged in the planning and administration of the proposed project;
- Project study design includes outreach components to disseminate research findings and information.

9. **(10%) Study Team Qualifications (Scientific Expertise)**
   (See national standards discussed previously)

10. **(10%) Budget/Work Plan (Leveraging & Capacity Building)**
    In addition to national standards discussed previously, this evaluation criterion will also consider the following elements:
    - Proposed budget and requested resources are reasonable, work plan is practical and achievable for the proposed level of work and expected benefits;
    - Project work provides opportunities to young researchers and/or includes post-doctoral research participation.

Additional Information

- Background information on the Pacific Islands Climate Science Center and useful contacts can be found at http://www.doi.gov/csc/pacific.

- The PI CSC will host two call-in sessions to address questions on this solicitation.
  - 14 January 2013, 14:00 to 15:00 pm Hawai'i Time
  - 16 January 2013, 14:00 to 15:00 am Hawai'i Time
  - Call-in number for both sessions: 703-648-4848 or 855-547-8255, Code 71487#

- Proposing teams are encouraged to consult with the PICCC in defining the problems and decisions to be addressed (Jeff Burgett, PICCC Science Coordinator, jeff.burgett@piccc.net, 808-687-6175)

- **FOR CONSORTIUM SUBMISSIONS ONLY**: NOTE PASS THROUGH INDIRECT COSTS –
  All proposals submitted by the PI CSC Consortium must be submitted through and by UH. Applicants at consortium institutions must include an amount to cover indirect costs at UH for this pass through. It is the policy of UH to apply indirect charges (in the amount of 36.7% applied to the first $25,000 of any funds passed through to a third institution). Please include the appropriate indirect charges on the budget sheets for your full proposal.

For questions on charges applied by UH, please contact:

Kevin Hamilton
Director, International Pacific Research Center (IPRC)
University Director, Pacific Islands Climate Science Center (PICSC)
Professor of Meteorology
Phone: (808) 956-8327
Email: kph@hawaii.edu

- **FOR USGS SUBMISSIONS ONLY:**
  For administrative and funding questions for project proposals submitted by a USGS PI, please contact:

  Dominique Horvath (Domo), Administrative Officer
  Pacific Islands Water Science Center
  Pacific Island Ecosystems Research Center
  Phone: 808-587-2410, email: dhorvath@usgs.gov

SOUTH CENTRAL CLIMATE SCIENCE CENTER

This Funding Opportunity addresses funding for FY 2013

Eligible Applicants:

- Federal funds administered by the South Central Climate Science Center (SC CSC) are only available to institutions participating in the affiliated academic consortium, and USGS centers, field stations and laboratories.
- SC CSC institutions include University of Oklahoma, Texas Tech University, Louisiana State University, The Chickasaw Nation, The Choctaw Nation of Oklahoma, Oklahoma State University, and NOAA's Geophysical Fluid Dynamic Laboratory. Partnering with, and across these groups is strongly encouraged.

Consortium Member	Principal Investigator/ Contact
University of Oklahoma	Dr. Berrien Moore, III (contact Aparna Bamzai, email: aparna@ou.edu)
Texas Tech University	Dr. John Zak john.zak@ttu.edu
Louisiana State University	Dr. Chris D'Elia cdelia@lsu.edu
Chickasaw Nation	Mr. Wayne Kellog, P.E. wayne.kellogg@chickasaw.net
Choctaw Nation	Mr. Brian McClain bmcclain@choctawnation.com
Oklahoma State University	Dr. M. Keith Owens keith.owens@okstate.edu
NOAA's Geophysical Fluid Dynamic Laboratory	Dr. Keith Dixon Keith.Dixon@noaa.gov

- It is not necessary for a university lead contact to be included on the proposal, but these contacts have a strong sense of the primary objectives of the SC CSC. As such, University PIs are advised to discuss proposal ideas with their respective institutional lead contact.
- Each proposal must have a Principal Investigator (PI) from an eligible entity. Partnerships between University consortium scientists and USGS researchers are strongly encouraged.
- Prospective PIs are advised to seek out and establish working partnerships with local or regional stakeholders from relevant organizations concerned with management of natural resources. These organizations may include agencies within the federal Department of the Interior, other federal agencies, state agencies, tribes, and private or non-governmental entities. The Landscape Conservation Cooperatives (http://www.doi.gov/lcc/index.cfm) are key stakeholders, partnering with, or soliciting input from them is advised. Proposals

that demonstrate clear engagement with stakeholders from such organizations, showing clear benefits through a collaborative process, will be evaluated more favorably.'

- Consortium-initiated proposals must be submitted though University of Oklahoma. Other parties may participate on funded projects via subawards. USGS researchers may receive funds directly.

Estimated Available Funds: Approximately $750,000 - $850,000 may be available to fund projects that support SC CSC science priorities in Fiscal Year 2013.

Project funding amount: Individual project funds will not exceed a total of $250,000 per year.

Project Duration: Not to exceed 24 months.

SC CSC Contact:
Dr. Kim Winton, Director
South Central Climate Science Center
301 David L. Boren Blvd, Suite 3030
Norman, OK 73072
Office: 405-325-1272
Cell: 405-833-5091
Email: kwinton@usgs.gov

Submission Portal: **HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS**

Science needs:
In Fiscal Year 2013, the SC CSC is interested in inviting Statement of Intents (SOIs) that address the following topical science needs:

The over-arching theme that threads through this RFP for SC CSC will be "Precipitation Variability." The South Central region exists in a zone of dramatic transition both in terms of eco-climate system diversity and in terms of occurrence of extreme events. This transition zone is the perfect natural laboratory for development of climate and ecological models, and decision support tools for land and water managers, and culture keepers. Precipitation variability should be a component of consideration in the proposals along with the science priorities listed below.

The science priorities for the 2013 funding are:

1. Regional physical climate variability and trends.
a. Develop tools to comprehensively assess strengths, weakness, and uncertainties associated with the understanding of the drivers of regional physical climate variability and trends in the South Central region. The project should incorporate observations, modeling and methods/techniques.
b. Development of methodology for cataloguing high-resolution regional climate data (both observational and modeled) that is already available and currently under development for the South Central region.

c. Establish variables and timescales of interest to stakeholders and identify ways to determine and communicate level of confidence for existing matching parameters in the catalogue of data.
d. Develop methods to close research gaps for variables of interest that do not exist in catalogue and for an integrated approach towards the development of regional projections.

Example for over-arching theme: Ability to understand and model drivers of convective precipitation and resulting consequences to variables of interest such as soil moisture.

2. Ecosystems and landscapes.
a. Identify major ecosystem drivers and disturbances across the South Central Region (extent of precipitation variability, temperature modification and extremes, impacts of fire, habitat fragmentation, land use change due to urbanization and agriculture, etc.) and assess the current level of understanding of each.
b. Develop a methodology for compiling, organizing and assessing available data in the South Central region and for integrating results across varying scales (spatial, species, time, etc.).
c. Establish priority landscape functions and services of concern to stakeholders and develop methods to close existing research gaps.
d. Determine priority, order, and structure for future data collection and research efforts in the South Central region.

Example for over-arching theme: Develop tools and methods to enhance the ability to understand and model the resilience of ecosystems and landscapes to drought, flood or temperature extremes, and the resulting consequences on local biota.

3. Human dimensions as they relate to climate change and precipitation variability.
a. Develop methods and approaches to studying coupled human and natural systems and determine whether an appropriate framework exists, or can be developed for examining the impacts of climate change on human populations and cultures on a regional scale.
b. Summarize research efforts undertaken so far in the South Central region, including both traditional populations and those especially vulnerable to climate changes such as Native American, coastal, low-income, etc. communities.
c. Evaluate opportunities for collaboration between participants and examine how to incorporate additional available data sources such as traditional ecological knowledge.
d. Develop a geospatial representation of evapotranspiration for use in the analysis of agricultural water use that is compatible with geospatial data for water use analysis needed for natural resources.
e. Using estimates of population growth and demographic data, predict future impacts on habitat fragmentation and on the ability of tribes to maintain cultural practices which rely on plant and animal species.
f. Identify best practices for valuing landscapes and evaluating impacts of landscape change on sacred sites (solar, wind, water withdrawal, recreation). Identify best practices for consultation and preserving sacred significance of landscapes.

g. Model analysis of predicted changes in ecosystem composition and distribution across the tribal lands to look at species abundance, distribution, habitat, and human impact. Consider the time between changes before, during, and after dramatic changes in climate; impacts of resource availability for animal and human consumption (e.g. grasses, shrubs, trees, and medicinal plants); and estimate when changes may occur (e.g. extinction events, increase in species list of being threatened and endangered).
h. Develop method to incorporate Gallons Per Capita Depletions per Day into global climate models to understand what is going to happen to depletions over time.

Example for over-arching theme: Ability to understand and describe the impact of sea level rise on coastal communities, their perceived risk, and the resulting individual and group actions.

Example for over-arching theme: Ecosystem services are a nexus between the ecosystem functionality, changing landscapes, and human decision making (conservation decisions, policy decisions, etc.). Develop research projects, tools or models that consider climate change and precipitation variability, specifically considering the human dimensions aspects in determining valuations of various ecosystem services, and how they might be applied to conservation and land management decisions.

4. Conservation and water governance
Water governance decisions are often characterized by conflicts over how to prioritize and balance diverse societal water uses with the needs of fish and wildlife resources (and the services they provide). This has been especially true in the Southeast, South Central and South West, CSC regions that have seen limited success reconciling conservation of fish and wildlife resources with other water use. Science and decision making tools have not fully met the challenge of incorporating fish and wildlife conservation into the larger context of water governance, which encompasses a broad range of social, economic, and aesthetic values.

LCC's thus face the challenge of developing conservation planning tools that are transparent in how they account for diverse stakeholder values concerning water quantity and quality within large river basins. This challenge is made more difficult by an incomplete understanding of the relationship between a changing climate, altered hydrologic regimes, and conditions in human and natural ecosystems. To develop effective strategies for adapting to change, decision-makers must understand (a) how their conservation activities are influenced (constrained) by water-management policies that are beyond their direct control; as well as (b) how to value fish and wildlife resources so tradeoffs with the broader suite of water-related uses can be analyzed; this can help ensure that fish and wildlife resources receive due consideration in the development of water-management policies by those that have the authority to do so.

Proposed research related to this topic should attempt to:
(Note: Consider this as an opportunity to develop a project across multiple CSC's. Please, notify the various CSC Directors that you intend to submit a cross-CSC proposal.)

1. Describe how fish and wildlife conservation decisions are situated within a broader context of water governance at the scale of one or more river basins in the SC CSC, or in addition to SE and/or SW CSC geographic areas;
2. Determine how existing water governance and stakeholder interests either limit or enable potential conservation strategies;
3. Develop methods to identify preferred conservation actions or strategies that conservation partners can implement to enhance fish and wildlife resources in the face of changing river hydrology;
4. Explore decision analysis and decision support modeling tools that can be used to aid decisions made in the face of uncertainty about water-resource dynamics and the impacts of water management; and
5. Develop and apply valuation methods that will (a) help identify tradeoffs among biological resources within existing or developing conservation partnerships (e.g., LCCs); (b) promote a more comprehensive assessment of competing values by those authorities charged with managing water quantity and quality in river basins; and (c) enable decision makers to understand and account for uncertainty in assessing tradeoffs.

Evaluation of Statements of Interest. SOIs will be reviewed by the SC CSC, with input from regional partners, and by the National Climate Change and Wildlife Science Center (NCCWSC). Applicants may be contacted to provide additional or clarifying information. SOIs will be considered according to the following criteria.

- 35% Applicability to a high priority need identified by the relevant CSC
- 20% Scientific merit and quality of the research
- 35% Engagement of stakeholders, decision makers, and other research entities
- 10% Potential for cross CSC collaboration

Review Criteria for Invited Full Proposals: In addition to the criteria listed above, this solicitation will add or subtract from proposal scores for the following factors:

- **20% Scientific merit and quality of the proposed research**: will address whether a project uses a credible scientific approach that reflects the current state of the science, has project objectives, overall strategy, study design, methodology, and analyses that are well-reasoned and appropriate to accomplish the specific scientific objectives of the project, and includes a credible data management plan as described above.
    - Also: Scientific Design
        - Scientific soundness of overall methodological approach to the project.
        - Project results have broad geographic application (regional and/or beyond).
        - Describes desired outcomes and indicates the type of data to be collected and special data service needs

- **30% Management Significance:** will address the degree to which a project addresses high priority items for regional Landscape Conservation Cooperatives and other management partners. Does this project help land managers make decisions regarding climate change and adaptation strategies?
    - Also: Knowledge Transfer
        - Engages targeted users in the study design and describes outreach components to disseminate research findings and information.
        - Identifies human dimension of project topic (i.e., safety, health, social, economic, etc.).
        - Identifies collaborative partners that will participate in the project.

    - Also: Applicability to Management Needs
        - Clearly demonstrates a connection to the SC CSC Climate Science Priorities listed above.
        - Identifies relevancy of project results to fish, wildlife, or habitat management needs.
        - Implements the shared science mission of the SC CSC across University and Federal Research agencies

- **25% Coordination and Engagement:** will address two factors: (1) Degree of engagement and interaction between the study team and intended management beneficiaries, and (2) the degree to the project is coordinated or leveraged with other resources (including leveraging additional resources and complementing/integrating with existing work of the study team members).
    - Also: Projects that extend across multiple CSC and/or LCC regions are encouraged where an expanded geographic range would enhance the scientific objective and scope of inference. Applicants considering such proposals should consult with the relevant CSC Directors. Applicants must state if they are listed on additional CSC proposals. CSCs and NCCWSC discourage applicants from submitting identical proposals to multiple CSCs.
    - Also: Proposals with co-PIs from the USGS and a University consortium member are encouraged and will be evaluated more favorably. Likewise, proposals involving collaborations with other organizations (Federal, State, Tribal, or other), demonstrating the involvement and benefits of a collaborative effort will be evaluated more favorably.
    - Also: While matching funds are not required, projects providing matching funds or leveraging other funding sources from organizations (Federal, State, Tribal, or other) will be viewed more favorably. Coordinates funding with other sources of funds and leverages additional resources to carry out the proposed project ("matching" funds are not required, but are encouraged).
    - Builds upon existing work and capacity or complements related research underway in other climate science projects in the region.

- Reaches across multiple LCCs to build upon common needs using a standard format for data and products.
- Provides opportunities for students, young researchers, and post-docs to participate.

- **15% Study Team qualifications:** will address applied and relevant past work, breadth of skill/knowledge to successfully perform the proposed research, and the integration, leadership, governance, and organizational approach of the investigator / study team. (As noted previously, applicants with significant issues regarding timely or effective completion of projects will be eliminated from further consideration until the issues are addressed to the satisfaction of the CSC and NCCWSC.)

- **10% Budget/work plan:** will address project budget and work plan in relation to the proposed level of work, expected benefits, complexity and/or scope of effort, and practicality and achievability of the proposed project.

Additional Information

Additional information and background on the SC CSC may be found at:

http://www.doi.gov/csc/southcentral/index.cfm

- SC CSC will hold a question and answer conference call:
  - A question and answer session will be held on January 17th.
  - Time: 2:00 Central Time
  - Call in information: 703-648-4848, Pass Code 74401 #
- Evaluation of SOI. Applicants may be contacted to provide additional or clarifying information. The evaluation of SOIs will be conducted with the assistance of an Evaluation Team comprised of LCC coordinators and independent experts who are not applying for funds.
- The SC CSC process has identified annual science priorities in consultation with, and taking into consideration comments from, the following sources:
  - USGS Leadership headquartered at the National Climate Change and Wildlife Science Center (NCCWSC) in Reston, Virginia;
  - Coordinators for the Desert, Eastern Tallgrass Prairie and Big Rivers, Great Plains, Gulf Coastal Plains and Ozarks, Gulf Coastal Prairie, and Southern Rockies LCC's:
  - Other USGS Climate Science Center Directors.

- Proposing teams are encouraged to consult with one or more Landscape Conservation Cooperatives (LCCs) or Tribes in the SC CSC region in defining the problems and decisions to be addressed.

Primary LCCs and LCC Science Coordinators in the SC CSC Domain

LCC	LCC Coordinator	Contact email address
Desert	Genevieve Johnson	gjohnson@usbr.gov
Eastern Tallgrass Prairie and Big Rivers	Glen Salmon - Coordinator	glen_salmon@fws.gov
Great Plains	Heather Whitlaw	Heather_whitlaw@fws.gov
Gulf Coastal Plains and Ozarks	Greg Wathen	Greg.wathen@tn.gov
Gulf Coast Prairie	Bill Bartush,	Bill_Bartush@fws.gov
Southern Rockies	Kevin Johnson	Kevin_m_johnson@fws.gov

- NOTE RE: PASS THROUGH INDIRECT COSTS: All proposals submitted by non-USGS entities must be submitted by University of Oklahoma. Full proposals that are invited will get further instruction on how to address indirect costs per their partnering institution so that the appropriate indirect charges on the budget sheets may be applied.
- Multi-year Funding (relevant to USGS proposers): To address issues related to carry-over of federal funds between fiscal years, and to deal with the fact that this solicitation can only provide funds for the first fiscal year of the project, CSCs will work with successful applicants to plan funding for multi-year projects in the fiscal years needed by the project, within the limitations of knowledge about out-year funding.
- It is strongly suggested that multi-year proposals have milestones for the end of each year with a product available for each year (i.e. year 1 literature review and data set compiled, year 2 model developed, year 3 model tested and published)

SOUTHEAST CLIMATE SCIENCE CENTER

This Funding Opportunity addresses funding for both FY 2013 and FY 2014

Eligible Applicants:	Only investigators from North Carolina State and USGS science centers, Cooperative Research Units, field stations and laboratories may submit proposals in response to this Funding Opportunity. Other parties may participate on funded projects via subawards from proposals with NCSU or USGS principal investigators.
Funding process:	All funds will be transferred from the Southeast Climate Science Center to either a USGS entity or North Carolina State University. These entities may then provide subawards to members of the CSC consortium or other parties.
Estimated Available Funds:	Approximately $300,000 may be available to fund projects that support Southeast CSC science priorities in Fiscal Year 2013. Approximately $300,000 may be available to fund projects that support Southeast CSC science priorities in Fiscal Year 2014.
Project funding amount:	Individual project funds will not exceed a total of $150,000 per year.
Project Duration:	Not to exceed 24 months.
SE CSC Contact:	Dr. Gerard McMahon, Director Southeast Climate Science Center 127 David Clark Labs, Department of Biology North Carolina State University Raleigh, NC 27695-7617 Office: 919-515-2229 Email: gmcmahon@usgs.gov
Submission Portal:	**HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS**

Science needs:

The Southeast Climate Science Center (SECSC) is soliciting proposals for projects that show evidence of a clear linkage between proposed science and climate change adaptation decisions that affect the sustainability of fish, wildlife, and other natural and cultural resources. Two types of climate-related management decision problems have been identified as priority SECSC concern in FY13/14.

1. Conservation and water governance

Water governance decisions are often characterized by conflicts over how to prioritize and balance diverse societal water uses with the needs of fish and wildlife resources (and the

services they provide). This has been especially true in the Southeast, a region that has seen limited success reconciling conservation of fish and wildlife resources with other water uses despite over four feet of annual rainfall. Proposed research should address the challenges of incorporating fish and wildlife conservation into the larger context of water governance at the river basin scale, which encompasses a broad range of social, economic, and aesthetic values.

2. Local-scale climate adaptation decision problem

The southeastern U.S. has an abundance of public properties devoted to the conservation of natural and cultural resources, such as National and State Parks, National Wildlife Refuges, State Wildlife Management Areas, and many others. Managers of these areas face the difficult challenge of understanding the potential impacts of climate change on the resources they are charged to protect, and of formulating effective mitigation and adaptation strategies. Proposed research should indicate how structured decision-making will be used to frame a *specific* decision problem, identify objectives, and define alternatives and tradeoffs necessary to identify effective mitigation or adaptation strategies. The research may be focused on a single conservation area or on a common problem shared by multiple preserves.

Complete details on the SECSC Specific Proposal Specifications and Criteria can be found at this URL: HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS

Additional Information

- Background information on the Southeast Climate Science Center can be found at http://www.theglobalchangeforum.org/se-csc/ .

- The Southeast Climate Science Center will host a question and answer session pertaining to this solicitation on:
  Wednesday, January 23, 2012, 11:00am Eastern time
  Thursday, January 24, 2012, 11:00am Eastern time

- NOTE ON SUBMISSIONS THAT INCLUDE PI'S FROM UNIVERSITIES OTHER THAN NC STATE: All proposals that include investigators at a university other than NC State must be submitted by a faculty member at NC State University who is a PI on the proposal. Applicants from other academic institutions must include an amount to cover indirect costs at NC State for this pass through. It is the policy of NC State to apply indirect charges (in the amount of 51.5%) to the first $25,000 any funds passed through to a another institution. Please include the appropriate indirect charges on the budget sheets for your proposal.

SOUTHWEST CLIMATE SCIENCE CENTER

NEEDS AND EVALUATION CRITERIA

This Funding Opportunity addresses funding for FY 2013

Eligible Applicants:

- Only members of the SOUTHWEST CLIMATE SCIENCE CENTER (SW CSC) University Consortium (see table below) and USGS centers, field stations and laboratories may submit proposals in response to this Funding Opportunity. The University Consortium members and lead contacts are provided in Table 1. It is not necessary for a university lead contact to be included on the proposal, but these contacts have a strong sense of the primary objectives of the SW CSC. As such, University PIs are advised to discuss proposal ideas with their respective institutional lead contact.
- Each proposal must have a Principal Investigator (PI) from an eligible entity. Partnerships between University consortium scientists and USGS researchers are strongly encouraged.
- Prospective PIs are advised to seek out and establish working partnerships with local or regional stakeholders from relevant organizations concerned with management of natural resources. These organizations may include agencies within the federal Department of the Interior, other federal agencies, state agencies, tribes, and private or non-governmental entities. Proposals that demonstrate clear engagement with stakeholders from such organizations, showing clear benefits through a collaborative process, will be evaluated more favorably. The Landscape Conservation Cooperatives (LCCs) in the region are good portals for establishing partnerships with management agencies. Contact information for relevant LCCs is provided in Table 2.
- Consortium-initiated proposals must be submitted though University of Arizona (UA). Other parties may participate on funded projects via subawards. USGS researchers may receive funds directly.

Funding Stream:	All funds will be transferred from SW CSC to either a USGS entity or UA. These entities may then provide subawards to members of the CSC consortium or other parties.
Estimated Available Funds:	Approximately $400,000 may be available to fund FY13-start projects that support SW CSC research priorities.
Project Funding Guidance:	The SW CSC intends to fund 2 to 4 projects through this RFP with budgets that collectively sum to approximately $400,000 (including both years of any two-year projects).
Project Duration:	Not to exceed 24 months.

SW CSC Contact: Dr. Stephen Jackson, Director
SW Climate Science Center
1955 E. Sixth Street
Tucson, AZ 85721
Office: 520-670-5591
Email: stjackson@usgs.gov

Submission Portal: **HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS**

Table 1. SW CSC University consortium members and lead contacts:

University of Arizona (Jonathan T. Overpeck)
Desert Research Institute (Kelly Redmond)
Scripps Institution of Oceanography (Alexander Gershunov)
University of California – Davis (Mark W. Schwartz)
University of California – Los Angeles (Glen M. MacDonald)
University of Colorado (Bradley H. Udall)

BACKGROUND:
The U.S. Department of the Interior (DOI) established the Southwest Climate Science Center (SW CSC) in 2010 to address the challenges presented by climate change and variability in the Southwestern United States (http://www.doi.gov/csc/southwest). The SW CSC'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 SW CSC operates using advice and guidance from a Stakeholder Advisory Committee (SAC). The SAC is chaired by the U.S. Geological Survey (USGS) Regional Director for the Pacific Region. The SW CSC also works closely with Landscape Conservation Cooperatives located wholly or partially within the SWCSC boundaries.
The SW CSC maintains two key documents that describe its geographic scope, mission, goals, guiding principles, and research priorities – a 3 to 5 year Strategic Agenda and an annual Workplan. The research priorities delineated in this RFP have been guided by the long-term and annual plans in the Strategic Agenda and annual Workplan. Proposal authors are encouraged to review these documents, available at the SW CSC website: http://www.doi.gov/csc/southwest.

In keeping with its mission, the SW CSC identifies research priorities that are tied closely to the needs of natural-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 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. The FY13 research priorities are described in the next section.

RESEARCH PRIORITIES:

1. **Anticipating climate change and variability at intermediate timescales**. Current forecasting ability is concentrated on short time spans of weeks to months, and long time spans of a few decades, with a major gap at intermediate time spans. Yet the strong variability and changes that occur at annual to decadal frequencies in the Southwest will modulate longer-term trends, and profoundly affect hydrological and ecological realizations in the coming decades. Intermediate-scale climate variability poses challenges and opportunities for resource managers. Assessments of how annual to decadal climate variability might influence climate extremes and long-term trends are needed. These assessments may include original research or reviews of the state of the science and prospects for intermediate-scale forecasting.

2. **Linking climatic, hydrological and ecological changes at intermediate timescales.** Climate variation at annual to decadal timescales has a large influence on hydrological and ecological systems. Hydrological extremes, both high and low, pose challenges for managers of water and other natural resources. Composition and structure of terrestrial ecosystems are strongly influenced by annual to decadal variability in spatially extensive disturbances (wildfires, mass mortality of trees) and recruitment, which in turn reflect climatic variability. Effects of such variation in disturbances and recruitment can persist for decades or longer in terrestrial ecosystems across the Southwest. Furthermore, geographic ranges and population sizes of many species are highly sensitive to interannual to decadal climate variability, which will affect their responses to longer-term climate trends. Hydrological and ecological responses to intermediate-scale climate variability need careful study. These dynamics will occur regardless of climate change, and they will influence ecological trajectories during the longer-term changes in climate over the next century. An important scientific challenge is to anticipate the array of intermediate-scale hydrological and ecological outcomes. That will in turn help resource managers identify threats and opportunities posed by alternative intermediate-scale scenarios.

3. **Hydrological effects of climate change in the Southwest.** Projections of 21st-century hydrological changes represent a critical need for stakeholders in the Southwest. The most recent results from the Coupled Model Intercomparison Project (CMIP5) provide an opportunity to update and improve forecasts of long-term trends in precipitation, snowpack, runoff, soil moisture, and groundwater in the region. The long-term projections (circa 2035 – 2100 CE) can be integrated and validated using observational and paleohydrological data. Projections of future hydroclimate and hydrology, with accompanying specifications of uncertainties, will be invaluable for stakeholder planning and decision-making, particularly if closely coordinated with one or more groups of stakeholders.

STATEMENT OF INTEREST REVIEW CRITERIA:

Statements of Interest will be ranked and evaluated according to the following criteria (see Section 2 above):

1. Engagement of stakeholders, decision-makers, LCCs, or other SW CSC partners (30%)
2. Applicability to regional scientific priorities as described above (40%)
3. Applicability to national, cross-cutting CSC program goals (see Section 5 above) and the goals of the National Climate Change and Wildlife Science Center, including the potential for cross-CSC collaboration (http://nccwsc.usgs.gov) (10%)
4. Scientific merit and quality of the proposed research (20%)

INVITED PROPOSAL REVIEW CRITERIA:

The Director of the SW CSC will assemble a Scientific Review Team (SRT) to assist in the evaluation of invited proposal submissions. With advice from the SRT, the Director will review and rank proposals according to the criteria described in Section 4 above and summarized below. Additional factors described in Section 5 "Additional Considerations" will evaluated for each proposal.

1. Scientific Merit and Quality of Proposed Research (Scientific Design) (30%)
2. Management Significance (Relevance/Applicability to Management Needs) (20%)
3. Coordination and Engagement (Working Partnerships and Knowledge Transfer) (20%)
4. Study Team Qualifications (Scientific Expertise) (20%)
5. Budget/Work Plan (Leveraging & Capacity Building) (10%)

ADDITIONAL INFORMATION:

- Background information on the Southwest Climate Science Center can be found at ***http://www.doi.gov/csc/southwest/index.cfm***

- The Southwest Climate Science Center will host two questions and answer sessions pertaining to this solicitation:

Tuesday, January 15, 2013, 2:00 Mountain Standard time:
Call in number: 605-475-3200
Access code:1060491#
WebEx link:
https://usgs.webex.com/usgs/j.php?ED=190241417&UID=481979867&RT=MiM1

Friday, January 18, 2013, 11:00pm Mountain Standard time:
Call in number: 605-475-3200
Access code:1060491#
WebEx link:
https://usgs.webex.com/usgs/j.php?ED=190241517&UID=481979867&RT=MiM1

- NOTE RE: PASS-THROUGH INDIRECT COSTS: All proposals submitted by non-USGS entities will be funded through a cooperative agreement with the host institution, which, for the SW CSC, is the University of Arizona (UA). UA applies indirect charges (51.5% of total direct costs) to the first $25,000 of any funds passed through to another institution. Accordingly, the maximum UA indirect charge amounts to $12,875. Please include the appropriate indirect charges, for both UA and other institutions, on the budget sheets for your proposal.

- All proposals are expected to have a clear breakdown of annual costs requested of the SW CSC for each participating institution for the duration of the project. Matching funds, in-kind contributions, and other sources beyond the request to the SW CSC should also be summarized.

- Multi-year Funding (relevant to USGS proposers): To address issues related to carry-over of federal funds between fiscal years, and to deal with the fact that this solicitation can only provide funds for the first fiscal year of the project, CSCs will work with successful applicants to plan funding for multi-year projects in the fiscal years needed by the project, within the limitations of knowledge about out-year funding.

Table 2. Southwestern Landscape Conservation Cooperatives and Contacts:

California LCC		
Debra Schlafmann	Coordinator	debra_schlafmann@fws.gov
Rebecca Fris	Science Coordinator	Rebecca_Fris@fws.gov
Desert LCC		
Genevieve Johnson	Coordinator	gjohnson@usbr.gov
Aimee Roberson	Science Coordinator	Aimee_Roberson@fws.gov
Great Basin LCC		
Linda Kelly	Coordinator	ljkelly@blm.gov
Todd Hopkins	Science Coordinator	Todd_Hopkins@fws.gov
North Pacific LCC		
John Mankowski	Coordinator	John_Mankowski@fws.gov
Mary Mahaffy	Science Coordinator	Mary_Mahaffy@fws.gov
Southern Rockies LCC		
Kevin Johnson	Coordinator	kevin_m_johnson@fws.gov
John Rice	Science Coordinator	JRice@usbr.gov

APPENDIX A
FORMAT FOR STATEMENTS OF INTEREST

Two pages total (with a standard font at 10 point or larger with one-inch margins). Statements of Interest must be submitted to the proposal submission portal [HTTPS://NCCWSC.USGS.GOV/RESEARCHFUNDS] in Portable Document Format (PDF).

SECTION 1. PROJECT ADMINISTRATIVE INFORMATION (roughly ½ page)

- Project title
- Short description (generally one sentence)
- Region to which the proposal is responding
- Name of Lead Agency/Institution/Organization requesting funding
- Project Lead Contact or Principal Investigator
- Mailing Address
- City, State, Zip
- Telephone, Fax, and E-mail

SECTION 2. PARTNERSHIPS & COMMUNICATION (roughly ½ page)

- Description of any collaborative partnerships involved in this project.
- List of additional investigators & affiliations involved in project.
- Potential links to LCC and other DOI Partner Strategic Science needs.
- Opportunities provided to young researchers and post-docs.

SECTION 3. PROJECT SUMMARY (roughly 1 page)

Please provide a brief narrative summary of the project based on the "Needs and Evaluation Criteria" specific to your region to which the proposal applies.

SECTION 4: ESTIMATED BUDGET

Please provide an estimated budget, including relevant indirect costs (including pass through costs, if any, at CSC host institution).

APPENDIX B
FORMAT for *INVITED* PROPOSALS

Proposal Structure: Include in the full proposal as a **single PDF document**:

A. Cover page information and summary (max. 1 page)
B. Proposal body (max. 7 pages)
C. Budget information (web-form based; submitted to Proposal Portal)
D. Budget justification (max. 1 page)
E. Curriculum vitae (max. 2 pages per investigator)
F. Literature cited (no page limit)
G. Data management plan (web-form based; submitted to Proposal Portal)
H. Letters of support (optional, as needed)

****

A. Proposal Cover Page and Summary Format (max. 1 page)

Project title: Brief but descriptive title of proposed project

Principal investigator (PI): List the name of the 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 if USGS PI):

Name of project fiscal contact: List the name of the fiscal contact. All communications and notifications will be directed to this individual and to the PI.

Phone number of fiscal contact:

Email of fiscal contact:

Names/Affiliations of other cooperators and partners (no contact information required):

Proposed start date and estimated duration of project (e.g., Start Date: 1 June 2012, 12 months):

Total project funding requested from the CSC:

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 unnecessary to include climate or climate change as a keyword)

Summary: The summary should provide a synopsis of the overall proposal. Key sections from the full proposal that *must* be summarized are: (1) Objectives/Justification, (2) Background, (3) Procedures/Methods, (4) Expected Products and Information/Technology Transfer, and (5) Personnel/Cooperators/Partners. **NOTE: this summary does not replace the required "general public" summary, as noted above.**

B. 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.

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 USGS or LCCs should be described, including their relation to the currently proposed work.

PROCEDURES/METHODS: Describe the procedures and methods to be followed in sufficient 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. If standard methods are used, a reference for the methods is sufficient.

GEOGRAPHIC SCOPE: Unless otherwise noted proposals should address information needs of the CSC region they are applying to.

EXPECTED RESULTS AND PRODUCTS: Describe expected products to be generated from the project (e.g., models, data sets, associated products and metadata, written reports, scientific publications, maps, software, etc.). Specifically identify products to be developed within period of one to three years and key milestones for producing those products.

TECHNOLOGY/INFORMATION TRANSFER: Identify intended users of project results or products and describe how results or products will be made available for application by clients and customers (e.g., DOI resource- and land-management agencies, other federal agencies, tribes, state and local governments, universities, and non-government organizations). Describe plans for digital integration and dissemination of data and products resulting from the project.

DOCUMENTATION OF MANAGEMENT APPLICATION / RELEVANCE: Describe what will be done at the start of the project to ensure project deliverables will respond to management information needs in the CSC REGION, including how LCCs will be involved in planning and implementing the project. Describe how project approach will ensure that expected products meet the needs of resource managers, including LCCs. Describe the interactions between investigators and the intended users of the scientific output of the project.

COOPERATORS/PARTNERS: Indicate all cooperators or partners making significant contributions to the success of the proposed project. 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 and execution of partnerships. Describe any arrangements to include natural and cultural resource managers in the study design team. 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 achievement of milestones, other accomplishments, and completion of the project.

QUALIFICATIONS OF PROJECT PERSONNEL: Summarize briefly 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.

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 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, as necessary, but they must be within the seven-page limit.

C. DATA MANAGEMENT PLAN: Please see (https://nccwsc.usgs.gov/content/data-policies-and-guidance) for guidance and instructions on how to develop the required data management plan. The Data Management Plan will be submitted via a web-form on the proposal submission portal.

If the proposal is selected for funding, the Data Management Plan must be updated within three months of project initiation and reviewed periodically until project completion. A CSC Data Steward will work with research teams to answer any questions and assist in the

development and review of the Data Management Plan for funded projects. If there are any questions, please contact Emily Fort (efort@usgs.gov), the Data and Information Coordinator for the National Climate Change and Wildlife Science Center.

D. BUDGET SUMMARY SHEET: Budget information will be submitted via an online webform on the proposal submission portal. Below is a listing of the categories of budget information that will be required. This information will be broken out by institution and by fiscal year. Insert additional lines or columns as needed.

- **A. Principal Investigator Salary & Benefits (provide both salary amounts and benefit rates)**
- **B. Other Personnel Salary & Benefits**
- **C. Equipment**
- **D. Travel**
- **E. Participant/Conference Support Costs**
  - **a.** Fees/Registration
  - *b. {other}*
- **F. Other Direct Costs**
  - a. Materials and Supplies
  - b. Publication Costs
  - c. Consultant Services
  - d. Computer Services
  - e. Subawards/Contracts
  - f. Equipment of Facility Rental/User Fees
  - g. Laboratory fees
  - h. Student tuition
  - *i. {other}*
- **G. Total Direct Costs**
- **H. Modified Total Direct Costs** *(University/CSC proposals only)*
- **I. Indirect Costs (Overhead/Burden)**
- **J. Project Funds Requested (Total Direct + Indirect)**
- *K. **PASS THROUGH INDIRECT COSTS** (For university/CSC proposals only)*
- **L. TOTAL REQUESTED FUNDS**
- **M. Partner Contribution {itemize activities and purchases}**

NOTE RE: PASS THROUGH INDIRECT COSTS – FOR CONSORTIUM PROPOSALS ONLY: All proposals submitted by the CSC Consortium must be submitted by a CSC Host University. Applicants at other consortium institutions may be required to include an amount to cover indirect costs at the Host University for this pass through Please include the appropriate indirect charges on the budget sheets for your proposal. Please review carefully the specific CSC section describing required indirect charges that must be included in such proposals.

E. BUDGET JUSTIFICATION (1 page)

A budget justification must be included to explain project costs in the categories outlined below. Detail should be sufficient to allow evaluation by reviewers of the costs proposed. Explain requests in each category:

Salaries, wages, and fringe benefits: Include estimated commitment to the project (by hours, months, percent of time or other clear metric) and rate of compensation proposed for each named individual (e.g., the PI) or category (e.g., graduate student). Fringe benefits: Give and explain the proposed rates/amounts in conformance with policies of the investigator(s) institution(s).

Equipment: Itemize any proposed permanent equipment acquisitions ($5,000 or more) and show the estimated cost of each item.

Travel: Specify travel requirements for field work, project meetings, and/or conference attendance for presenting project results. Itemize estimated travel costs to show the number of trips required, destinations, the number of people traveling and per diem rates, cost of transportation, and miscellaneous expenses for each trip. Calculations of other special transportation costs (such as vehicle rental costs) should also be shown.

Participant/Conference Support Costs: If the proposed work includes hosting a conference or workshop, explain all costs here.

Other direct costs: Explain direct costs listed in Section F of the budget form ("Other Costs"), such as materials and supplies, publication costs, subcontracts, graduate student tuition or fixed costs.

Modified Total Direct Costs (MTDC): Explain what is not included in direct costs for the purposes of calculation indirect costs.

Indirect costs: Provide indirect cost rate and amount approved for each institution.

Partner contribution: provide summary of any financial contributions from partners or match from your institution. Any contributions from partners should be documented in a letter of support.

F. CURRICULUM VITAE (max. 2 pages per investigator)

G. LITERATURE CITED (optional)
Include full citations at the end of the proposal body. The seven-page maximum does not apply to citations.

H. LETTERS OF SUPPORT (optional as needed, max. 1 page each)

APPENDIX C
ANNUAL REPORT INSTRUCTIONS FOR CSC-FUNDED PROJECTS

This document contains instructions for completing an **annual report** for projects funded by the Climate Science Center (CSC). Annual reports of your project activities provide a record of your study and preliminary results. Annual reports serve several important functions to the CSC and are used as:

- An essential component of the CSC due diligence activities;
- A means for PIs to communicate significant preliminary research findings or reasons for project delays;
- A metric for gauging the impact of CSC funding programs;
- Presentations and website communication services to advance CSC's mission and activities.

Please note that annual reports are due within ninety (90) days of the anniversary of the effective date of the Cooperative Agreement. Failure to provide the required information may delay payments of your Agreement and may jeopardize your ability to participate in future CSC funding opportunities. Please submit completed reports electronically to the Director of the CSC from which funds were received. Additional questions, comments, and supplemental information may also be sent to this address.

Annual reports do not need to be lengthy, but we ask that you include the following information:

1. ADMINISTRATIVE: Please include name and contact information of the award recipient, agency or institution, project title, agreement number, date of report, and period of time covered by the report.

2. PURPPOSE AND OBJECTIVES: Describe the project goals and objectives, with particular emphasis on changes made to the objectives as stated in the original proposal. If the objectives have been added to, eliminated, or modified, please explain why these changes have been made.

3. ORGANIZATION AND APPROACH: Explain how each research task is being conducted. Briefly list which research methods are being used to achieve results, including new methods that were not described in the original proposal. Please also discuss any problems or delays encountered in conducting the research during the reporting period.

4. RESULTS: Present your preliminary project results if possible. Both quantitative and qualitative results (descriptions of how well or poorly something worked) are useful. Of

particular interest are major discoveries, innovative approaches and solutions, and accomplishments made by the project team to date.

5. NEXT STEPS: State and describe the next steps in the research, including an updated project timeline and anticipated completion date.

6. OUTREACH: Describe all project-related outreach opportunities to date. Include a list of articles that are in preparation, under review, accepted, or published in peer reviewed journals and other non-peer reviewed journals. Also list project-related conference presentations, seminars, webinars, workshops, or other presentations to the public made by research team members. Please also report on any communications with decision-makers, including their name and agency and the date(s) and frequency of your communications. Information on whether the decision-makers were involved in the design of the project plan or if the research has been tailored to address a specifically-stated management need is also helpful.

7. BUDGET: Briefly describe the budget, with particular emphasis on changes to the budget that was submitted in the original proposal. Please discuss reasons for substantial budget modifications or why funds have not been spent as expected.

APPENDIX D
FINAL REPORT INSTRUCTIONS FOR CSC-FUNDED PROJECTS

This document contains information and instructions necessary to complete the **final report** for projects funded by a Climate Science Center (CSC). The final report of your CSC-funded research project provides a record of your study and its results. Your report will serve as a resource for others: copies of project reports are available to the public upon request. The final report serves several important functions to the CSC and is used as:

- An essential component of CSC due diligence activities;
- A metric for gauging the impact of CSC funding programs;
- An opportunity for Principal Investigators (PIs) to suggest areas for improvement;
- Presentations and website communication services to advance the CSC's mission and activities.

Please note that final reports are due within ninety (90) days after the close of the performance period covered by the Agreement. Failure to provide the required information may delay final payments of your Cooperative Agreement and may jeopardize your ability to participate in future CSC funding opportunities. Please submit completed reports electronically the Director of the CSC from which funds were received. Additional questions, comments, and supplemental information may also be sent to this address.

The final report shall include the following sections:

1. ADMINISTRATIVE: Please include name and contact information of the Recipient, Agency or Institution, project title, agreement number, date of report, period of time covered by the report, and actual total cost.

2. PUBLIC SUMMARY: The public summary should be concise and informative, and should be self-contained and intelligible to a layperson. In less than 300 words please describe your major scientific achievements to a non-scientific community (i.e., in non-scientific language) including major benefits of your research to society at large. Highlight the findings and significance of your research to expanding general knowledge in your scientific discipline, and the application of the results of your research to address significant societal problems. The CSC may use the public summary in publicly-distributed documents and other materials.

3. TECHNICAL SUMMARY: The technical summary should outline the goals of the original research project and provide a technical description of how these goals were or were not met, highlighting specific achievements. Please state major research accomplishments made possible by receiving CSC funding. Please indicate how your research results contributed to the advancement of scientific knowledge regionally and/or nationally.

4. PURPOSE AND OBJECTIVES: This section should include information about the issue(s) the project addressed, and the community it serves. What were the original objectives identified during project initiation? Were they met? Have changes eliminated, added to, or modified the original objectives? Please describe any differences from the original proposal and why these changes were made. This is valuable information for others who are studying the same topic and essential for our evaluation of the project.

5. ORGANIZATION AND APPROACH: This section of the report explains in task orientated terms how the research activities of the project were conducted. Briefly list which research methods were used to achieve results and why they were chosen by the team.

6. PROJECT RESULTS: Present your project results. Quantitative results (numerical and/or statistical data) and qualitative results (descriptions of how well or poorly something worked) are both important. Tables, graphs and other figures representing your data are excellent ways to summarize data and present them in an accessible way.

7. ANALYSIS AND FINDINGS: In this section, describe research findings and list major discoveries, innovative approaches and solutions, and accomplishments made by the project team. Please describe the corresponding management applications relevant to these scientific findings.

8. CONCLUSIONS AND RECOMMENDATIONS: In this section, discuss the results of the project and what you found out. Did you encounter any problems during the project? What project tasks were not completed and why? What would you do differently if you did this project again? Also state and describe the recommended next steps. Based on what you've learned, what do you think should be studied next?

9. OUTREACH: List the type of outreach that you did, or expect to do, including any publications or other presentations of your project to the public. Include a list of articles that emerged from this research. The list should include articles in preparation, under review, accepted, or published in peer reviewed journals and other non-peer reviewed journals. List any project-related conference presentations made by any team members.