

PNW CESU Membership List for Renewal 2020

Federal Agencies

- Bureau of Indian Affairs (BIA)
- Bureau of Land Management (BLM)
- Bureau of Ocean Energy Management (BOEM)
- Bureau of Reclamation (USBR)*
- Department of Defense (DOD)
- National Oceanic & Atmospheric Administration (NOAA)
- National Park Service (NPS)
- National Resources Conservation Service* (NRCS)
- US Army Corps of Engineers (USACE)
- US Fish and Wildlife Service (USFWS)
- US Forest Service (USFS)
- US Geological Survey (USGS)

University Partners

- Central Washington University (CWU)
- Eastern Washington University (EWU)
- Heritage University (HU)
- Oregon Institute of Technology (OIT)
- Oregon State University (OSU)
- Portland State University (PSU)
- Seattle University
- Southern Oregon University
- St. Mary's University of Minnesota (SMUMN)
- University of Alaska Anchorage (UAA)
- University of Alaska Southeast (UAS)
- University of British Columbia (UBC)
- University of Idaho (UID)
- University of Oregon (UO)
- University of Vermont *(UVM)
- University of Washington, host (UW)
- Washington State University (WSU)
- Western Washington University (WWU)

State Agencies

- Alaska Department of Fish & Game (ADF&G)

Non-Government Organizations

- Western Association of Fish & Wildlife Agencies (WAFA)

Non-Profit Organizations

- Center for Natural Lands Management (CNLM)
- Institute for Applied Ecology (IAE)

Vote 12/21/2016

Seattle University

	YES
BIA	YES
BLM	YES
BOEM	YES
DOD	YES
NOAA	YES
NPS	YES
NRCS	YES
USACE	YES
USBR	YES
USFWS	YES
USFS - sub	YES
USGS	YES
12	12
100%	

Seattle University

UW	YES
ADFG	
CWU	YES
EWU	
HU	YES
OIT	YES
OSU	YES
PSU	YES
SMUMN	YES
SOU	
UAA	YES
UAS	YES
UBC	YES
UI	YES
UO	
UV	YES
WSU	YES
WWU	YES
18	14
	30 26
77.8%	

11/6/2017

WAFWA

	YES
BIA	YES
BLM	YES
BOEM	YES
DOD	YES
NOAA	YES
NPS	YES
NRCS	YES
USACE	YES
USBR	YES
USFWS	YES
USFS	
USGS	YES
12	11
91.7%	

WAFWA

UW	YES
ADFG	
CWU	YES
EWU	YES
HU	YES
OIT	YES
OSU	YES
PSU	YES
SMUMN	YES
SOU	YES
SU	
UAA	YES
UAS	
UBC	
UI	YES
UO	
UV	
WSU	YES
WWU	YES
19	13
31	25
15.50	
68.4%	

2/23/2018

CNLM

	YES
BIA	YES
BLM	YES
BOEM	NO
DOD	YES
NOAA	YES
NPS	YES
NRCS	YES
USACE	YES
USBR	
USFWS	YES
USFS	YES
USGS	
12	10
83.3%	

CNLM

UW	YES
ADFG	
CWU	YES
EWU	YES
HU	
OIT	YES
OSU	
PSU	YES
SMUMN	YES
SOU	
SU	
UAA	YES
UAS	
UBC	
UI	
UO	
UV	
WSU	YES
WWU	YES
WAFWA	YES
20	10
32	21
16.00	
50.0%	

6/4/2018

IAE

	YES
BIA	YES
BLM	YES
BOEM	YES
DOD	YES
NOAA	YES
NPS	YES
NRCS	YES
USACE	YES
USBR	YES
USFWS	YES
USFS	YES
USGS	YES
12	12
100%	

IAE

UW	YES
ADFG	
CNLM	YES
CWU	
EWU	YES
HU	YES
OIT	YES
OSU	YES
PSU	YES
SMUMN	YES
SOU	
SU	YES
UAA	YES
UAS	
UBC	YES
UI	
UO	
UV	
WSU	YES
WWU	YES
WAFWA	YES
21	14
33	27
16.50	
66.7%	

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Pacific Northwest Cooperative Ecosystem Studies Unit News. Please share our newsletter!

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Cooperative Ventures

News from the [Pacific Northwest Cooperative Ecosystem Studies Unit](#)

The Pacific Northwest Cooperative Ecosystem Studies Unit (PNW CESU), hosted by the University of Washington, is a partnership for research, technical assistance, and education to enhance understanding and management of natural and cultural resources.

January 2016 Issue

- News from the Host
- New Member
- Partner Updates
- Funding Opportunities
- Upcoming Events
- PNW FY15 Funding
- Project Highlights

Previous issues are available online at [Cooperative Ventures](#).

News from the Host

We are pleased to start 2016 under a new five-year [master cooperative agreement](#). The National CESU Council reviewed our renewal packet (self-assessment, host letter of intent, peer feedback) and voted to approve the PNW CESU for its fourth term.

We are excited to welcome the Bureau of Indian Affairs as our newest federal agency member. See below for their current funding opportunities.

We held the PNW CESU Annual Meeting on December 14th, 2015. The meeting minutes are available [here](#).

New Member

Bureau of Indian Affairs



The Bureau of Indian Affairs (BIA) is joining the PNW CESU under Amendment 1 to our new master agreement. The BIA states that high importance is placed upon future work on climate change adaptation including the unique impacts to traditional cultural uses. Of particular interest for future work is the potential for shared benefits from integration of traditional ecological knowledge and current adaptive management to address ecosystem resilience. Find out more on our [BIA page](#) and see their current funding opportunities below.

Partner Updates

National Oceanic and Atmospheric Administration

NOAA has started its first project under the PNW CESU. They are partnering with the University of Alaska Anchorage and have supplied \$594,000 in funding towards the *Kachemak Bay National Estuarine Research Reserve* project.

Bureau of Ocean Energy Management

The Bureau of Ocean Energy Management (BOEM) recently shared a [Fact Sheet](#) which includes some interesting project highlights. The Environmental Studies Program (ESP) at BOEM designs, funds, and manages scientific research on the marine, coastal, and human environments to inform the Federal offshore energy leasing program. The ESP currently manages more than 50 ongoing study projects in Alaska, in topical areas such as protected and endangered species; physical oceanography; fate and effects of pollutants; wildlife biology; food security; traditional knowledge; and economic forecasting. Completed study reports are available at <http://www.boem.gov/akstudies>.

National Park Service

The National Park Service is celebrating it's Centennial Year! The centennial will kick off a second century of stewardship of America's national parks and engaging communities through recreation, conservation, and historic preservation programs.

We invite you to find your park and discover the national parks and programs in your own backyard: <http://www.nps.gov/subjects/centennial/index.htm>

Heritage University

Heritage University has recently welcomed Alex Alexiades, PhD, Natural Resources. He will be developing a new Aquatic and Fisheries Science program and curriculum which will incorporate Traditional Ecological Knowledge into Environmental Science Education. He will also focus on developing GIS and Program R courses, outreach with Yakama Nation Fisheries and area K-12 students, and EnvironMentor for high school students on Yakama Indian Reservation, and is interested in developing a local fisheries and aquatic research program (focusing on salmond population dynamics and ecosystem function) and continuing research in tropical Andean rivers. You can learn more about HU and Alex [here](#). Any PNW CESU members who wish to collaborate are encouraged to contact him at Alexiades_A@heritage.edu.

Funding Opportunities

Please visit our [Announcements](#) webpage for full details on these opportunities.

Internship/Fellowship Announcements

National Park Service Mosaics In Science Diversity Internship

The Mosaics In Science Diversity Internship Program provides college students and recent graduates with an opportunity to work with the National Park Service in positions in science, technology and engineering. The Interns are paid a \$4,800 stipend, all travel costs to and from the job are covered and, the Interns provided with housing (or a housing allowance.) More information on the Mosaics In Science Internship Program can be found at:

<http://www.mosaicsinscience.org/> and <http://www.nature.nps.gov/geology/mosaics/>

[George Melendez Wright Initiative for Young Leaders in Climate Change](#)

The National Park Service Climate Change Response Program and the University of Washington are pleased to announce paid summer internship positions to address climate change in national parks! The George Melendez Wright Initiative for Young Leaders in Climate Change (YLCC) offers twelve positions for the summer of 2016 in national parks and program offices all around the country. Applications will be accepted until 12:00 PM PST on January 28, 2016. For further information, list of available internships, and application directions please visit the program website: parksclimateinterns.org

See the PNW CESU Project Highlights below to find the Climate Change Response Newsletter featuring previous George Melendez Wright Initiative internship projects.

[Schoodic Institute Research Fellowship Request for Proposals 2016](#)

Schoodic Institute at Acadia National Park announces the availability of grants to support science research in or near Acadia National Park. Schoodic Institute has particular interests in bird ecology, forest ecology, and freshwater and ocean ecology, especially as they relate to environmental change, conservation, and resource stewardship. Each proposal may request up to \$5,000 for research, including stipend, supplies, and travel. Deadline: Proposals must be submitted by February 15, 2016. [Please see full details here.](#)

[University of Washington Climate Change video contest 2016](#)

The first-ever UW Climate Change Video Contest was such a hit last year that we're hosting it again this year! Last year's winners set a high bar—but let's see what you can do to top it! Check out the [winning videos](#) and get inspired to tell your story. Submissions are due on April 4, 2016, by 5 p.m. (PST). Complete details are available here: <https://apps.sefs.uw.edu/video/>

[Bureau of Indian Affairs, 2016 Tribal Student Climate Change Photo Contest](#)

Using a classroom or cell phone camera, take a picture of things of value in your community that climate change might affect, include a climate caption, and submit the photo or questions by e-mail to: bia_climate_photo_contest@bia.gov. DUE April 30th (2016 Spring Contest).

Funding Announcements

[National Park Service Scholars-in-the-Park Program Request for Letter of Research Interest \(LOI\), Sitka National Historical Park \(SITK\)](#)

In preparation for the 150th anniversary of the Alaska Purchase in 2017, Sitka National Historical Park would like to gain a better understanding of how both Native Alaskan and Russian cultures have contributed to the history of Alaska. This project requires that the principal investigator(s) have deep knowledge and experience in the study of Russian History or the colonial history of the North

Pacific, as well as knowledge about historic preservation and planning, and knowledge and experience with completing actionable planning documents at either the state or federal level. Deadline for responding to this letter of interest is January 30, 2016. More information is available [here](#).

[Bureau of Indian Affairs, A Program to Identify and Address Climate Science Needs for Improved Climate Change Adaptation](#)

[Funding Opportunity Number: BIA-climate-16-0001 at <http://www.grants.gov>](#)

BIA's Tribal Climate Resilience Program is pleased to announce a new Solicitation of Proposals for cooperative agreements between BIA and tribal organizations to hire 5-7 tribal climate science liaisons to address tribal climate science needs through extension work with tribes, research, and coordination. Please choose the direct access solicitation link above this description for further information and to apply. DUE Feb. 12, 2016, 5PM EST.

[National Park Service Letter of Research Interest \(LOI\) Roger Williams National Historic Site Ethnographic Study](#)

The Northeast Region Archeology and Ethnography Program is interested in conducting an Ethnographic Overview and Assessment (EOA) for Roger Williams National Memorial (ROWI). Partners of the national Cooperative Ecosystem Studies Unit Network (CESU: <http://www.cesu.psu.edu>) are invited to respond to this request for [Letters of Research Interest](#). Project funds available are \$90,000 that includes the CESU overhead rate of 17.5 percent. The project will be funded by the National Park Service. Only non-federal partners within the national CESU network are eligible to apply. Responses of interest should be directed before the closing date to Erik Kreusch (Erik_S_Kreusch@nps.gov). Additional questions can be answered by contacting Erik Kreusch, Cultural Anthropologist, Northeast Region Ethnography Program, National Park Service (978-970-5144). Deadline for responding to this letter of interest is March 25, 2016.

Employment Announcements

[USGS Permanent Supv. Research Ecologist GS-0408-12/13](#)

The Forest and Rangeland Ecosystem Science Center of the US Geological Survey will be hiring a full-time, permanent appointment to be responsible for designing, executing, and publishing results of research and monitoring with a primary focus on direct and indirect effect of natural and human disturbance on shrub steppe landscapes across western North America. All applicants must apply at www.usajobs.gov. Opens 01/13/2016 Closes 02/10/2016.

[Schoodic Institute Forest Ecology Program Director](#)

This is a new position contributing to the growth and development of Schoodic Institute. It is fully funded for the first year and expected to be a permanent role. Forest ecology and the response of forests to rapid environmental changes are priority research areas at the Institute. We seek a program director with academic qualifications, research interests, and skills and ambitions in building partnerships and connections between science, education, and resource management. Please send resume & cover letter as a .pdf attachment, using "Forest Ecology" in the subject line, to search@schoodicinstitute.org. Applications will be accepted until the position is filled. Schoodic Institute is an Equal Opportunity Employer. Please see full details about this position here.

Events

February 8 - 12, 2016: [Alaska Forum on the Environment](#), Anchorage, AK, [Website](#)

The Alaska Forum on the Environment (AFE) is Alaska's largest statewide gathering of environmental professionals from government agencies, non-profit and for-profit businesses, community leaders, Alaskan youth, conservationists, biologists and community elders. The diversity of attendees and comprehensive agenda sets this conference apart from any other. [Read more & register](#)

February 24 - 25, 2016: Sagebrush Ecosystem Conservation: All Lands, All Hands Conference, Salt Lake City, UT

The Great Basin Consortium, the Western Association of Fish and Wildlife Agencies, and Utah State University are co-sponsoring this conference to continue sharing the latest information and to plan for the conservation, restoration, and maintenance of resilient sagebrush ecosystems. Website: <http://sagebrushconference2016.org/>

March 8 - 10, 2016: Climate Science Leadership Conference

<http://www.climateleadershipconference.org/>

The annual Climate Leadership Conference convenes a global audience of climate, energy, and sustainability professionals to address climate change through policy, innovation, and business solutions. Now in its fifth year, the 2016 event will host the first U.S. climate conference post-Paris to further accelerate climate solutions and a low-carbon economy.

PNW CESU Funding

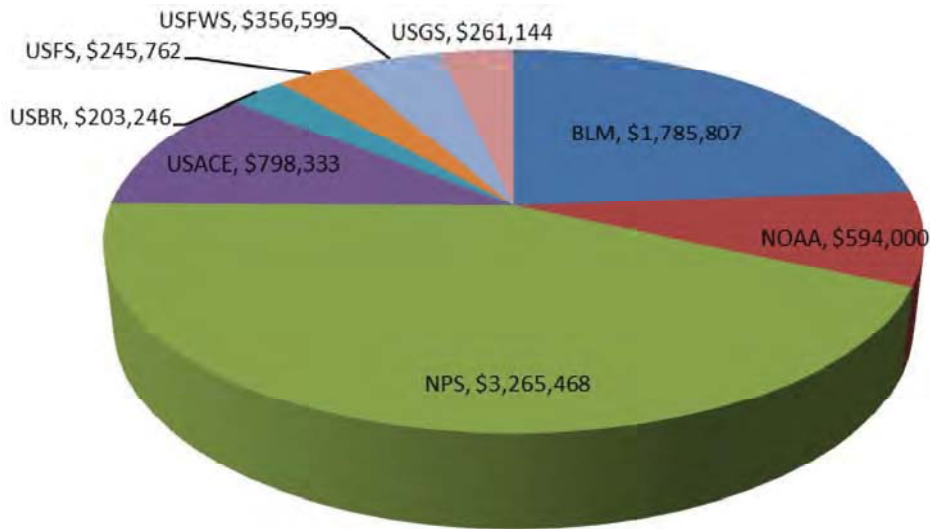
Since inception (2000) the PNW CESU has facilitated the collaboration of our university partners with our federal agency members to produce **764 projects** with over **\$90 million** of funding.

Fiscal Year 2015

- **\$7.5 million** in funding
- **8** Federal Agencies participated
- **15** University or State Partners received project funding
- **62** New projects were created
- **59** Existing projects received additional funding

The National Park Service (NPS) was the largest contributor, followed by the Bureau of Land Management (BLM). The chart below displays the amount of funding per federal agency.

FY15 Agency Funding



PNW CESU Project Highlights

Please visit our [Project Library](#) for more information about these projects.

George Melendez Wright Initiative for Young Leaders in Climate Change



The National Park Service showcased this PNW CESU project in their [Climate Change Response Program Newsletter](#). The George Melendez Wright Initiative for Young Leaders in Climate Change project is a partnership between the NPS with Melanie Wood as Agreement Technical Rep and the University of Washington, College of the Environment, with Dean Lisa Graumlich as PI. The NPS has supplied almost \$1.5 million over the past five years to support the George Melendez Wright internships. (Project # P14AC01396).

Pikas in Peril: A Multi-Regional Vulnerability Assessment of a Climate-Sensitive Sentinel Species

The North Pacific Landscape Conservation Cooperative (NPLCC) recently held a [webinar](#) based in part on this PNW CESU project to study the genetic connectivity of pika populations in five NPS units. The National Park Service, with Gordon Dicus as Agreement Technical Representative, partnered with Oregon State University, with Clinton Epps, PhD, as PI (Project # J8W07100025).



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Cooperative Ventures

News from the [Pacific Northwest Cooperative Ecosystem Studies Unit](#)

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- News from the Host
- News from the CESU National Network
- Partner Updates
- Funding Opportunities
- Project Highlights

Previous issues are available online at [Cooperative Ventures](#).



News from the Host

The PNW CESU has a new [website!](#)

We are excited to share our new site and encourage you to check it out to learn more about the PNW CESU's work, members, and funding opportunities.

<http://depts.washington.edu/pnwcesu/>

You can find over 350 project reports in our website's [Project Library](#), which allows searches by agency, partner, project type, or keyword.



News from the CESU National Network

2016 CESU Network Biennial National Meeting

The 2016 CESU Network National Meeting will be held June 14th-16th at the [National Conservation Training Center](#).

The CESU National Meeting brings together the CESU Network Council, CESU Directors and partners from across the nation. This year's sessions include discussions about partnerships that cross international and agency boundaries, presentations about successful CESU projects conducted at multiple geographic scales, and meetings focused on programmatic needs and future strategic directions of the CESU Network. Please visit the CESU National Website for a complete outline of the meeting as well as a

link to register on-line and further instruction on lodging. This meeting is open to all partners! We encourage our members to consider sending representatives to attend the meeting to network with federal and non-federal partners.

[2016 CESU National Awards - Call for Nominations](#)

The CESU Network National Awards recognize individuals, groups of individuals, institutions, and/or projects within the CESU Network that have contributed substantially to the development, implementation, or accomplishments of the CESU Network. Awards highlight the collaborative structure of CESUs and reflect the achievements of federal and nonfederal partners working together. Awards will be announced and presented at the CESU Network National Meeting.

Eligibility

Any representative of a CESU Network partner organization (federal or nonfederal) is eligible for a CESU Network National Award. Nominations can represent any of the following categories:

- A group of individuals
- One or more CESU-affiliated institutions
- One or more CESU projects
- An individual – e.g., student, faculty, staff, administrator, unit or program manager

Award Criteria

Awards recognize the collaborative structure of CESUs, and reflect the achievement of federal and nonfederal partners working together. The criteria used to select recipients are intended to be broad and flexible, reflecting the range of activities involved in the CESU concept, and fall into one or more of the following general categories:

- Significant contribution to the development of the CESU concept and/or CESU Network.
- Innovative use of the CESU Network through development of new and valuable collaboration.
- Application of CESU-affiliated research, technical assistance, and education efforts or outputs to inform decision-making or stewardship activities.

Nomination Procedure

Any federal or nonfederal representative of a CESU partner organization may submit an award nomination. A complete award nomination package must include all of the required elements listed below. Nomination packages must be submitted via email to the CESU Network National Office (c/o Tom_Fish@nps.gov) and include “2016 CESU Award” in the subject line. [A downloadable PDF version of the call for nominations is available here.](#) The deadline for submissions is Tuesday, 31 May 2016.

Partner Updates

Visit our [Membership](#) page to learn about our partners and how to join the PNW CESU.

National Park Service

The National Park Service is celebrating it's Centennial Year!

The centennial will kick off a second century of stewardship of America's national parks and engaging communities through recreation, conservation, and historic preservation programs.

The [Klondike Gold Rush National Historical Park](#) - Seattle Unit (KLSE) recently opened a new exhibit, A Century of Service: The National Park Service Story. This exhibit highlights the NPS Centennial and park service history through the eyes of the park ranger. Visitors are invited to join the Find Your Park adventure at the trailhead and follow a career of green



and gray—learning about 100 years of service along the way. This exhibit was designed by KLSE museum staff and University of Washington Museology graduate students. It specifically highlights NPS units in the North Coast and Cascades Network, with rotating artifacts on display from these parks throughout the duration of the exhibit. For more information about the park's partnership with the U of Washington's Museology Program and this exhibit contact: Tarin Erickson, Museum Technician Klondike Gold Rush National Historical Park - Seattle Unit, tarin_erickson@nps.gov.



U.S. Forest Service

The [Pacific Northwest Forest Service Center](#)'s main scientific goal is to provide robust scientific information supporting the effective management of marine, coastal and diadromous living marine resources. The Center conducts a wide range of research that includes scientific disciplines from physiology to stock assessment to geomorphology. Addition of these research scientists to the staff helps PNW research station remain the pillar of cutting edge research that its known for and assures continuity into the future.

The USFS has 16 new beginning career research scientists. Find out more about them [here](#).

Funding Opportunities

Visit our [Announcements](#) page for more information about these funding opportunities.



National Park Service: Midwest NNL Gap Analysis

The National Natural Landmarks (NNL) program is interested in cooperating with CESU partners to systematically identify potential NNLs (PNNL) in the midwestern states of Illinois, Indiana, Iowa, Minnesota, Michigan, Missouri, Ohio, and Wisconsin. Project components will include a gap analysis of the biological and geological features (natural history themes) not yet represented by current designated NNLs, development of criteria to prioritize gaps in representation utilizing elements of landscape scale conservation, and identification and description of the top 2-3 sites to potentially fill these gaps. [Read more](#)



U.S. Geological Survey: Host Climate Science Centers

The U.S. Geological Survey has released a Program Announcement via Grants.gov to request applications to host Climate Science Centers (CSCs) in four regions. Access the announcement [here](#). Closing Date for Applications: July 19, 2016. [Read more](#)

National Park Service: Hampton National Historic Site

National Park Service, Letter of Research Intent for Ethnographic Study for the Hampton National Historic Site Please see this notice for an opportunity to partner with the NPS for an Ethnographic Study for the Hampton National Historic Site. Approximately \$90,000 is available for this project and the deadline for inquiry is May 26, 2016. Please respond... [Read more](#)



PNW CESU Project Highlights

Visit our [Project Library](#) for more information about these and other PNW CESU projects.



Bureau of Land Management

Climate Data: Identifying Tools Based on What Users Do

The **Oregon/Washington BLM** funded an undergraduate student, Melanie Brown, at **Oregon State University** who worked with the Conservation Biology Institute. Melanie conducted one-on-one interviews over the phone with 30 managers from eastern Oregon and southern Idaho to understand what they did with respect to sagebrush ecosystem management and restoration and what climate and weather data they used to conduct their analyses and work.

She walked the managers through a series of climate and weather websites covering snow cover, longer range weather forecasts, drought, and climate change. The feedback received resulted in changes to web-based tools provided by the Conservation Biology Institute to better serve land managers and the blueprint for a new tool to focus on potential climate change impacts on vegetation, as requested by the managers.

Melanie completed her undergraduate thesis based on this project, and presented her findings at three conferences and in two webinars. Interest in further development of the climate impacts delivery tool is high. The BLM plans to provide additional funds to support further development of the climate impacts delivery tool as part of Melanie's graduate studies in 2016. The BLM Agreement Technical Representative for this project was Louisa Evers and the OSU PI was Dominique Bachelet (Project # L14AC00103).



U.S. Fish & Wildlife Service

Routed Streamflow Projections for the Western U.S.

The **U.S. Fish & Wildlife Service** and the **University of Washington's Climate Impacts Group** (CIG), partnered to produce historical and projected daily stream flow data for select 4th level Hydrologic Unit Code (HUC8) basins in the Western U.S. with averaged, routed, and/or biased-corrected flows:

1. An observationally-based historical dataset for the period 1915-2011.
2. For a set of 10 CMIP5 model projections spanning the historical period of 1950-2005 as well as the 21st century for both a low and a high greenhouse gas scenario.

The result is a single observationally-based time series for each HUC8, along with a set of 10CMIPS historical simulations and 20 CMIPS projections for each site. The USFWS will clip climate change model projection grid cells with the watershed boundaries of interest to produce

fractional coverage masks. These masks will be used to determine routed average daily flows.

Dr. Guillaume Mauger served as the UW PI and David Hines of the USFWS Columbia River Fisheries Program as the Agreement Technical Representative. Dr. Mauger presented related work related assessing the impacts of climate change on flooding at the last PNW Climate Center Conference.



National Park Service

Developing Implementation Plan and Curriculum for the Mount Rainier Institute at the Center for Sustainable Forestry at Pack Forest

This collaborative project between the **National Park Service Mount Rainier National Park (MORA)** and the **University of Washington, School of Environmental and Forest Services (SEFS)** launched [The Mount Rainier Institute](#).

The Institute, located at the UW Center for Sustainable Forestry at Pack Forest, provided residential environmental education programs and services for school children during the school year and emphasized programming and services designed to address two key societal issues:

- 1) engaging diverse youth in outdoor and environmental education potentially leading to higher education and career pathways in related fields
- 2) increasing youth competency in math and science, particularly among traditionally underrepresented students.



The MORA team included the Chief of Interpretation and Education, the Education Program Manager, the Park's Education Specialists, along with park subject matter experts in the natural, physical and social sciences. Working with the UW SEFS PI Dr. Greg Ettl and UW personnel, they established a clear philosophy for the Mount Rainier Institute's curriculum and help create a basic framework that will direct the program. This project's final reports can be found [here](#) (Project # P12AC10608).

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- New Members
- Partner Events
- PNW CESU Funding
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- Project Highlight

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News from the Host

The University of Washington, School of Environmental and Forest Sciences, has appreciated the support of **Director Tom DeLuca** who has served as Co-Leader of the PNW CESU for the past three years. Dr. DeLuca has accepted the position of dean of the College of Forestry and Conservation at the University of Montana and will now be involved in the Rocky Mountains CESU.

We are pleased to welcome our **new PNW CESU Co-Leader, Dr. Elizabeth Van Volkenburgh**, who will be acting as Interim Director of the School of Environmental and Forest Sciences.

Dr. Van Volkenburgh has, from the beginning, been interested in how plants work, focusing on physiology and adaptation. In her career as a plant biologist, her research has focused on the physiological regulation of leaf expansion in crop plants, including beans, corn, poplar and tomato. She is most known for her work on leaf growth with respect to photobiology and drought stress, and has explored how genetic variation in activity of growth control affects yield. After more than 30 years as a professor of biology at the University of Washington, we are excited to have her lead the School of Environmental and Forest Sciences and act as Co-Leader of the Pacific Northwest CESU.

New Members

Visit our [Membership](#) page to learn about our partners and how to join the PNW CESU.



New PNW CESU Member: Seattle University

We are excited to welcome our newest partner, **Seattle University**.

Seattle University, founded in 1891, is a Jesuit Catholic university located on 50 acres in Seattle's Capitol Hill neighborhood. More than 7,000 students are enrolled in undergraduate and graduate programs within eight schools and colleges.

Seattle University is one of the top universities in the West, according to U.S. News & World Report: Best Colleges 2016. The university ranks #6 for its full range of undergraduate, master's and select doctoral degree programs. The university consistently has held a spot in the West's top 10 for more than a dozen years. In addition, Seattle U is a top-ranked university in the West for military veterans, ranking #6 for offering benefits for veterans and active-duty service members.

Dr. Teodora Rutar Shuman, Associate Professor and Department Chair of Mechanical Engineering, will be serving as the SU Technical Representative for the PNW CESU. She teaches in the areas of energy, fluid mechanics, thermodynamics, and design. Her research is in sustainable dewatering of microalgae and in pollutant reduction from lean-premixed combustion. teodora@seattleu.edu

The College of Science and Engineering has the following Areas of Study:

Undergraduate

- Civil and Environmental Engineering
- Environmental Science
- Computer Science
- Electrical and Computer Engineering
- Mechanical Engineering

Graduate

- Computer Science
- Software Engineering

For more information on the areas of study in the College of Science and Engineering please refer to our web site at <https://www.seattleu.edu/scieng/>

Partner Events



National Park Service

The NPS in Seattle and across the nation is supporting communities and organizations to commemorate the 75th anniversary of the issuance of Executive Order 9066 and the resulting incarceration of Japanese Americans during World War II through events, educational programs, and service opportunities.

Year of Remembrance: Glimpses of a Forever Foreigner

Featuring poems by Lawrence Matsuda and artwork by Roger Shimomura

Opening reception: Thursday, February 16, 2017, 6pm

RSVPs encouraged – rsvp@wingluke.org

On display February 17, 2017 – February 11, 2018

On February 19, 1942, President Franklin D. Roosevelt issued Executive Order 9066, which resulted in the forced removal and incarceration of 120,000 Japanese and Japanese Americans. They were charged with no crime. The cause of their imprisonment was their ancestry.

This exhibition recognizes the 75th Anniversary of Executive Order 9066,

and explores historic and contemporary issues of racism, discrimination and human rights.

Artist Talk and Poetry Reading

With Roger Shimomura and Lawrence Matsuda
Sat, February 18, 2017, 4-5:30pm

Meet Roger Shimomura and Lawrence Matsuda as they examine their works that interpret and reflect on the incarceration of Japanese American during WWII, and relate them to contemporary times.

Both will be available for book signing after the event. Select books of Roger and Lawrence's works will be available for purchase in the Marketplace. Tickets \$15/general public; \$10/members.

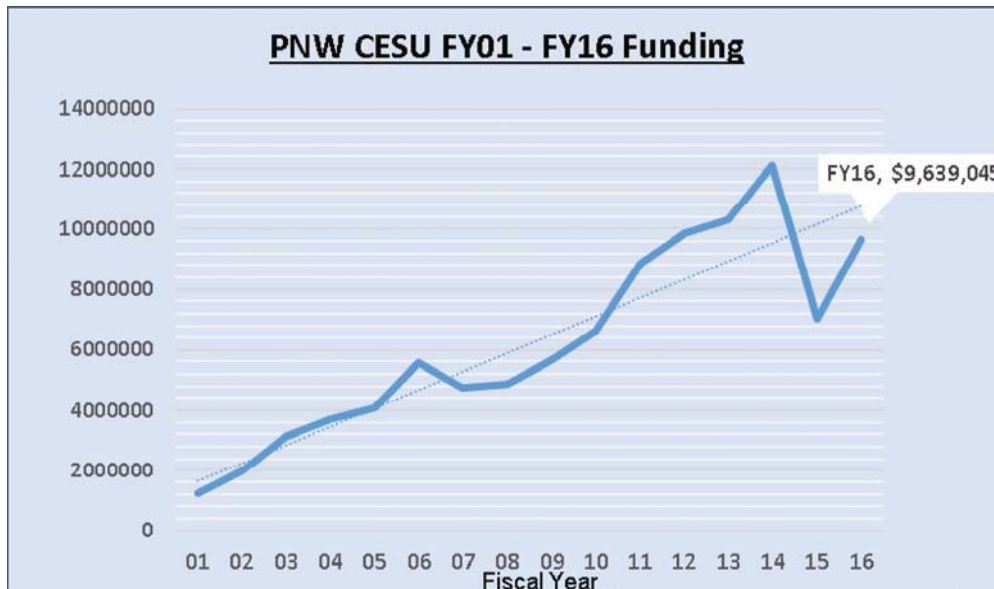
Purchase tickets online: <https://community.winqluke.org/2017-pages/artist-talk-and-poetry-reading-2017>

PNW CESU Funding Update

The PNW CESU's federal agencies have supplied **\$99.3 million** to our partners to fund **816 projects** since inception in 2001.

In fiscal year 2016, nine federal agencies supplied over **\$9.6 million** to 14 of our partners to fund **101 project** (51 new and 51 existing projects).

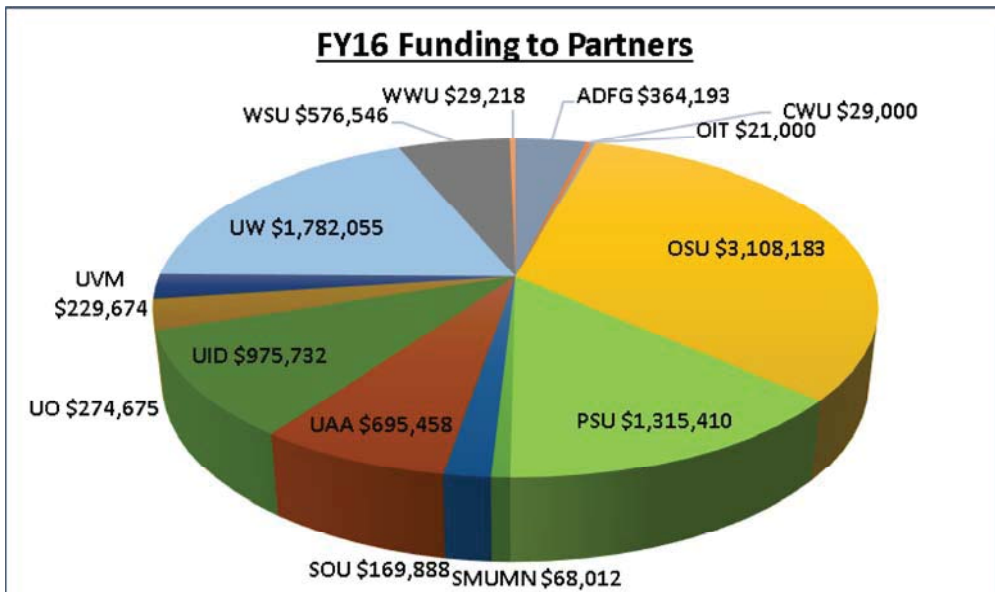
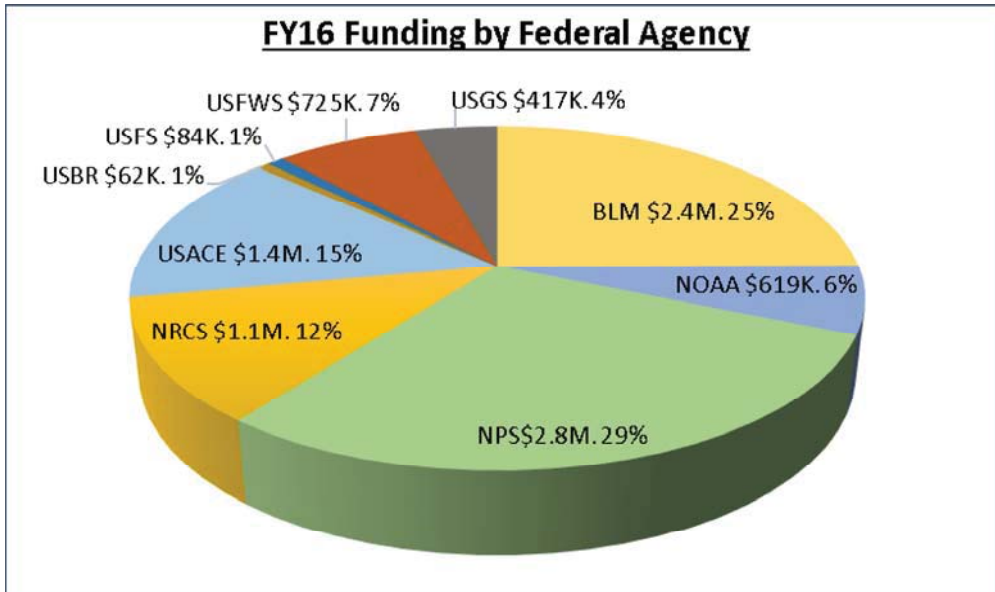
You can find the list of our new projects [here](#). Further information about these and other projects can be found in our searchable [Project Library](#).



Federal Agencies supplying FY16 Funding:

- [Bureau of Land Management \(BLM\)](#)
- [National Oceanic and Atmospheric Administration \(NOAA\)](#)
- [National Park Service \(NPS\)](#)
- [Natural Resources Conservation Service \(NRCS\)](#)
- [U.S. Army Corps of Engineers \(USACE\)](#)
- [U.S. Bureau of Reclamation \(USBR\)](#)
- [U.S. Fish and Wildlife Service \(USFWS\)](#)

- [U.S. Forest Service \(USFS\)](#) – Pacific Northwest Research Station
- [U.S. Geological Survey \(USGS\)](#)



Funding Opportunities

Visit our [Announcements](#) page for more information about these funding opportunities.

Department of Defense Request for Statements of Interest

Project Title: Passive Acoustic Monitoring of Marine Mammals in the Gulf of Alaska Range Complex



#N62473-17-2-0002, Approximately \$250,000.00 is expected to be available to support the base requirements of this project.

The Department of the Navy (DoN) is seeking statements of interest that address the Navy's passive acoustic monitoring requirements for marine mammals in the GOA Range Complex. Generally, the Navy's passive acoustic monitoring requirements include: (1) collect and analyze passive acoustic monitoring data for one year; (2) evaluate the potential impact of sonar on marine mammals; (3) produce a report of each effort; (4) attend the Acoustical Society of America Annual meeting. Please find the full RSOI and enclosures 1-6 [here](#).

Project Title: Humpback Whale Tagging in Support of Marine Mammal Monitoring Across Multiple Navy Training Areas in the Pacific Ocean

#N62473-17-2-0001, Approximately \$ 230,000.00 is expected to be available to support the base option requirements of this project.

The Department of the Navy (DoN) is seeking statements of interest that address the Navy's monitoring requirements for humpback whales across multiple training ranges in the Pacific Ocean. Generally, the Navy's BASE monitoring requirements include: (1) deployment of deep-implant satellite tags on humpback whales in Hawaii during the winter/spring 2017; (2) collect tissue samples simultaneously during tagging efforts; and (3) prepare a preliminary summary. Six OPTIONAL requirements include: (1) perform tissue sample genetic analyses; (2) conduct a technical analysis of tag data and compile that information in a draft and final report; (3) procure additional satellite tags; (4) deploy additional deep-implant satellite tags on humpback whales off Oregon during the summer/fall and collect tissue samples; (5) perform tissue sample genetic analyses on summer/fall collections; and (6) conduct a technical analysis of summer/fall tag data and compile that information into the report from the OPTIONAL reporting task. Please find the full RSOI announcement and 6 enclosures [here](#).



**US Army Corps
of Engineers®**

**U.S. ARMY CORPS OF ENGINEERS
Omaha District, Legacy Resource Management
Program, Funding Opportunity Announcements**

**NWO-CESU-17-13, MANAGEMENT, SPECIES, HAWAIIAN PETREL;
KOEKEE AFS, \$92,500, Closing Date: Mar 13, 2017**

The 611th Civil Engineer Squadron (CES) is the real property owner of an Air Force Station on the island Kauai. This project will support the 611th CES and its tenants at Kokee AFS complete requirements depicted within Biological Opinions issued by the USFWS, specifically avian monitoring and predator control. More information is available [here](#).

**NWO-CESU-17-10, CLIMATE CHANGE BASELINE ANALYSIS FORT
WAINWRIGHT, AK, \$181,190, Closing Date: Mar 06, 2017**

The U.S. Army Garrison, Fort Wainwright, Alaska (USAG FWA) owns and manages approximately 1.6 million acres in Interior Alaska. The USAG FWA is requesting assistance to facilitate a climate change baseline analysis with requirements to analyze climate change effects and management strategies for Fort Wainwright and its Training Lands. More information is available [here](#).

**NWO-CESU-17-9, VANDENBERG AIR FORCE BASE NATURAL
RESOURCE SUPPORT, \$101,421, Closing Date: Mar 06, 2017**

The objectives of the work are to conduct natural resource tasks on the federal lands belonging to Vandenberg AFB, and to prepare reports detailing the results of this work for submission to the USACE Omaha District POC, AFCEC Edwards Installation Support Team (IST) POC, and Vandenberg Natural Resource Manager. More information is available [here](#).

**NWO-CESU-17-6, NELLIS AFB NATURAL RESOURCES SUPPORT,
\$2,091,942, Closing Date: Mar 06, 2017**

The objectives of the work to be performed under this task order are to conduct natural resource tasks on the federal lands belonging to Nellis AFB, and to prepare reports detailing the results of this work for submission to the USACE Omaha District POC, AFCEC Nellis Installation Support Team (IST) POC, and Nellis AFB Natural Resource POC. More information is available [here](#).



U.S. Bureau of Reclamation Request for Statements of Interest

Project Title: Peer Review: Three Lakes Water Quality and Hydrologic Models. Grand Lake, Colorado

Responses to the Request for Statements of Interest (SOI) will be used to identify a potential lead to carry out a reviewer selection process to form two peer review panels to conduct review of a water quality model and hydrologic model (2 separate models), provide responses relative to aspects and issues provided by Reclamation, facilitate conversation amongst individual peer reviewers and panels prior to preparation of a single report of the expert peer review comments. More information is available [here](#).

PNW CESU Project Highlight

Visit our [Project Library](#) for more information about these and other PNW CESU projects.



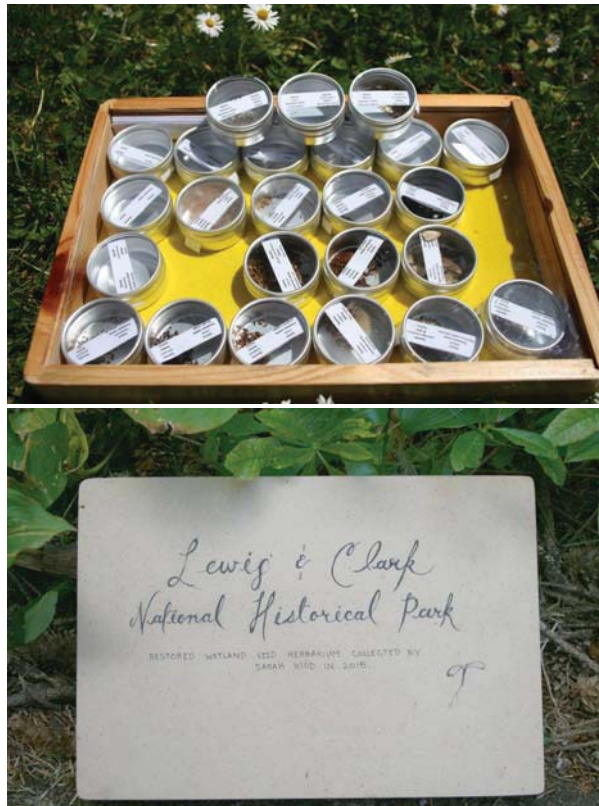
National Park Service and Portland State University

Oligohaline Tidal Wetland Plant Community Restoration and Response to Changes in Tidal Flooding and Salinity

The National Park Service's **Chris Clatterbuck**, Chief of Resources, Lewis and Clark National Historical Park, and Portland State University's **Sarah Kidd**, PhD student and National Science Foundation Fellow, and **Dr. Alan Yeakley**, Director of the School of the Environment collaborated on this project. They examined the composition of seed banks and seed bank emergence among common native and non-native dominant plant communities from tidally reconnected oligohaline wetlands in Lewis & Clark National Historical Park. The ability of native plants (*Carex lyngbyei*, *Schoenoplectus lacustris*) and non-native plants (*Phalaris arundinacea*, *Juncus effusus* subsp. *effusus*) to dominate different areas within a wetland is hypothesized to be related to their abundance in the seed bank and germination responses to soil conditions created by the restored frequency and duration of tidal flooding and salinity. To identify how seed bank viability changes in response to these abiotic conditions, seed bank emergence was examined under a gradient of tidal flooding and salinity treatments in the greenhouse. These data help determine the role of dominant native and non-native plant communities in defining restored tidal wetland seed bank compositions and how these seed banks may respond to changes in tidal flooding and salinity. This project produced this [Final Report](#).

Watch the YouTube video of this project in action!
https://www.youtube.com/watch?v=EHEKzh_HQtE

Pictured below is a seed herbarium prepared by Sarah Kidd for PSU's education programs. (Project ID: P15AC00582).



You are receiving this email because you are a PNW CESU project participant, affiliate, or have expressed interest in the PNW CESU.

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PNW CESU · University of Washington · School of Environmental and Forest Sciences · Seattle, WA 98195 · USA

MailChimp

Pacific Northwest

Cooperative Ecosystem Studies Unit

Strategic Plan

December 2019

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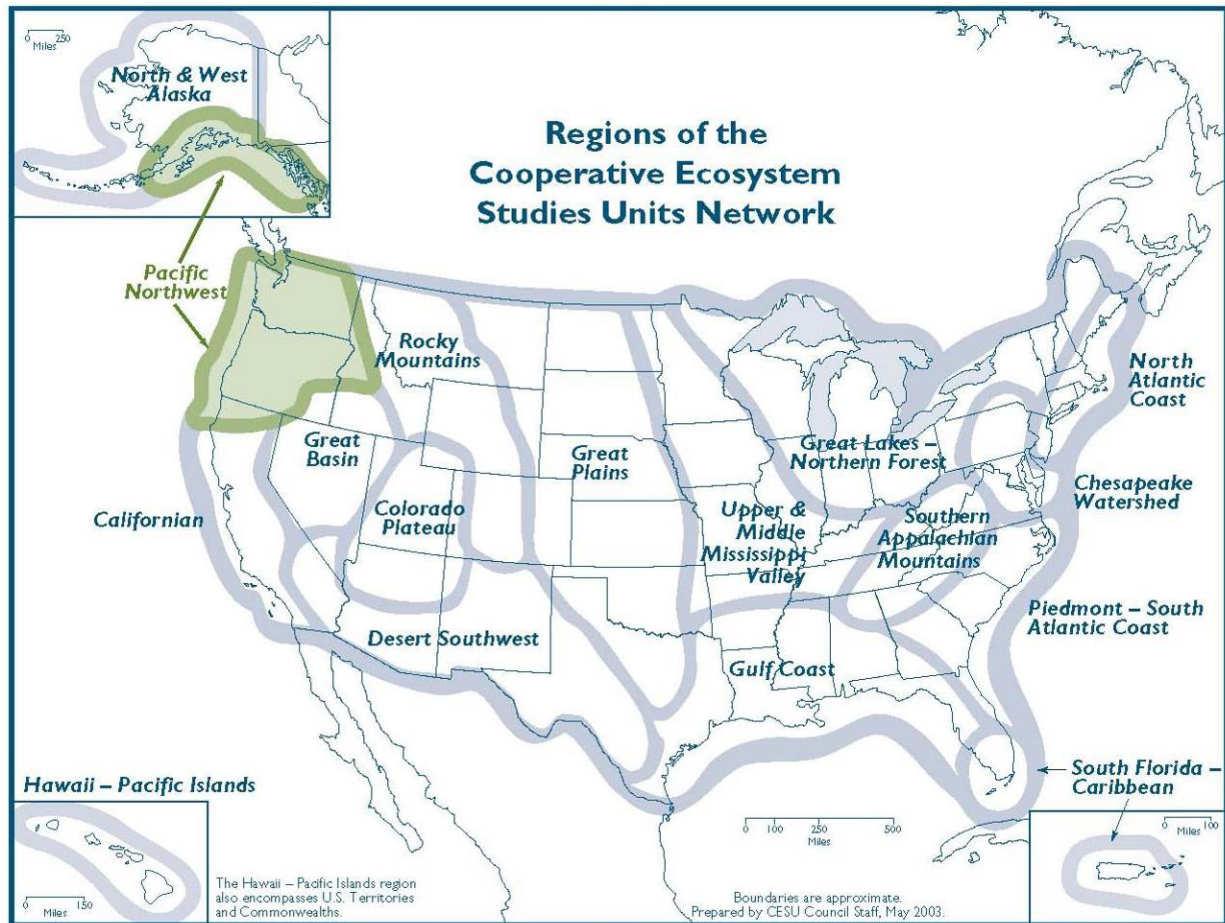


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Introduction to the CESU National Network and the Pacific Northwest Region

Cooperative Ecosystem Studies Units (CESUs) are working partnerships among leading academic institutions, federal, state, and non-governmental organizations. A National Network of seventeen CESUs has been established, with each unit serving a separate bioregion. The goal of the CESU National Network is to improve the scientific base for managing federal lands by providing resource managers with high quality scientific research, technical assistance and education through their working partnerships.



The **Pacific Northwest Cooperative Ecosystem Studies Unit (PNW CESU)** encompasses a region extending across five states: Washington, Oregon, Northern California, Western Idaho and Southeastern Alaska. It is hosted by the University of Washington in Seattle. The PNW CESU operates as a clearinghouse to promote and conduct interagency and interdisciplinary research. The strength of the PNW CESU is its ability to bring together diverse groups from participating institutions and agencies, including minority institutions, to address common natural and cultural resource management issues. The CESU adapts to meet the changing needs of resource managers and institutions, and to reflect developments occurring in the Pacific Northwest region.

The PNW CESU Structure: A virtual organization

The PNW CESU is a virtual organization originally established in the fall of 2000 by cooperative agreement. Since 2000 the agreement has been renewed three times (for five-year terms) and amended fourteen times for the addition of new federal and university partners.

All member agencies and institutions have representatives who serve on an executive committee to help shape the organization's goals and direction. The PNW CESU executive committee meets yearly to update the strategic plan, explore opportunities for project collaboration, and review past year project activity.

PNW CESU Partners

Federal Agencies

- Bureau of Indian Affairs
- Bureau of Land Management
- Bureau of Ocean Energy Management
- Bureau of Reclamation
- Department of Defense
- National Oceanic & Atmospheric Administration
- National Park Service
- National Resources Conservation Service
- US Army Corps of Engineers
- US Fish and Wildlife Service
- US Forest Service
- US Geological Survey

University Partners

- Central Washington University
- Eastern Washington University
- Heritage University
- Oregon Institute of Technology
- Oregon State University
- Portland State University
- Seattle University
- Southern Oregon University
- St. Mary's University of Minnesota
- University of Alaska Anchorage
- University of Alaska Southeast
- University of British Columbia
- University of Idaho
- University of Oregon
- University of Vermont
- University of Washington, host
- Washington State University
- Western Washington University

State Agencies

- Alaska Department of Fish & Game

Non-Government Organizations

- Western Association of Fish & Wildlife Agencies

Non-Profit Organizations

- Center for Natural Lands Management
- Institute for Applied Ecology

Mission Statement

The Pacific Northwest Cooperative Ecosystem Studies Unit is a partnership for research, technical assistance and education to enhance understanding and management of natural and cultural resources.

Key Issues of the Pacific Northwest Biogeographic Region

- Evaluation and management of species and habitats at risk
- Climate change and its impacts on valued resources
- Adaptation guidelines for changing environmental conditions
- Ecological disturbances, drought, and fire
- Landscape and river restoration
- Development of effective resource inventory and monitoring protocols
- Pacific Northwest Native cultural resource documentation and knowledge preservation
- Sustainable resource management
- Conserving biodiversity
- Human dimensions in public lands management, including urban and rural issues
- Invasive species
- Influence of hydropower projects on endangered species and the removal of migration barriers
- Wind and wave energy development and analysis

Projects through the PNW CESU are distributed across the campuses of our partner institutions. Federal agencies work with university and state agency partners in disciplines as varied as landscape architecture, environmental studies, oceanography, biology, and anthropology.

Sample of PNW CESU Projects

Biological

- Ecology of Upper Klamath Lake Shortnose and Lost River Suckers (BOR)
- Riparian Area Vegetation Monitoring in the Sprague River Valley (NRCS)
- Northern Spotted Owl Disturbance Study (FWS)

Social

- Illegal Dumping on Public Lands Database Project (BLM)
- Visitor Management and Carrying Capacity at Cumberland Island National Seashore (NPS)

Physical

- Climate Impacts on Burn Severity in Three Forest Ecoregions of the United States (USGS)
- Development of the Remote Area Soil Proxy Modeling Technique (NRCS)

Cultural

- Rehabilitation of Cedar Mesa Archaeological Collection (BLM)
- Inupiaq Landscapes and Architecture: Preserving Alaska Native Community Histories (NPS)

Interdisciplinary

- Protocols for Assessing Community Quality of Life for Land Management Planning (USFS)
- Continued Development of a National Biological Information Infrastructure Node for the Pacific Northwest (USGS)
- Human and Environmental Dynamics at Cape Krusenstern National Monument (NPS)

*Visit the PNW CESU web site project library
For complete information on all PNW CESU projects
http://depts.washington.edu/pnwcesu/search/project_library.php*

Goals and Objectives

1	<p>Establish effective ongoing communication among all partners</p> <ul style="list-style-type: none"> • develop and maintain web site • publish PNW CESU newsletter • convene annual meeting of PNW CESU partners
2	<p>Demonstrate success in research, technical assistance & education</p> <ul style="list-style-type: none"> • develop research, technical assistance and education projects that: <ul style="list-style-type: none"> (a) provide well rounded participation across research, technical assistance and education arenas (b) have robust levels of involvement by partners and agencies (c) fulfill and enhance the collaborative ideal of the PNW CESU
3	<p>Increase minority involvement</p> <ul style="list-style-type: none"> • identify minority-institution partner strengths in the areas of research, technical assistance and education • link minority institutions with PNW CESU agencies
4	<p>Match agency needs with partner expertise</p> <ul style="list-style-type: none"> • regularly post agency needs and partner expertise on the web site • convene regular meetings of agency representatives to discuss training needs and ways of fulfilling these needs using the CESU structure • on an ongoing basis, develop mechanisms and explore opportunities for multi-agency collaboration
5	<p>Establish an effective and efficient organization</p> <ul style="list-style-type: none"> • develop executive committee operating principles and guidelines for: <ul style="list-style-type: none"> (a) addition of new members to the PNW CESU (b) composition of the managers committee (c) expected level of agency/partner participation (d) responsibilities of member agencies and institutions • meet yearly as an executive and managers committee • post information to the web site regarding cooperative agreement financial and administrative procedures specific to each agency or institution

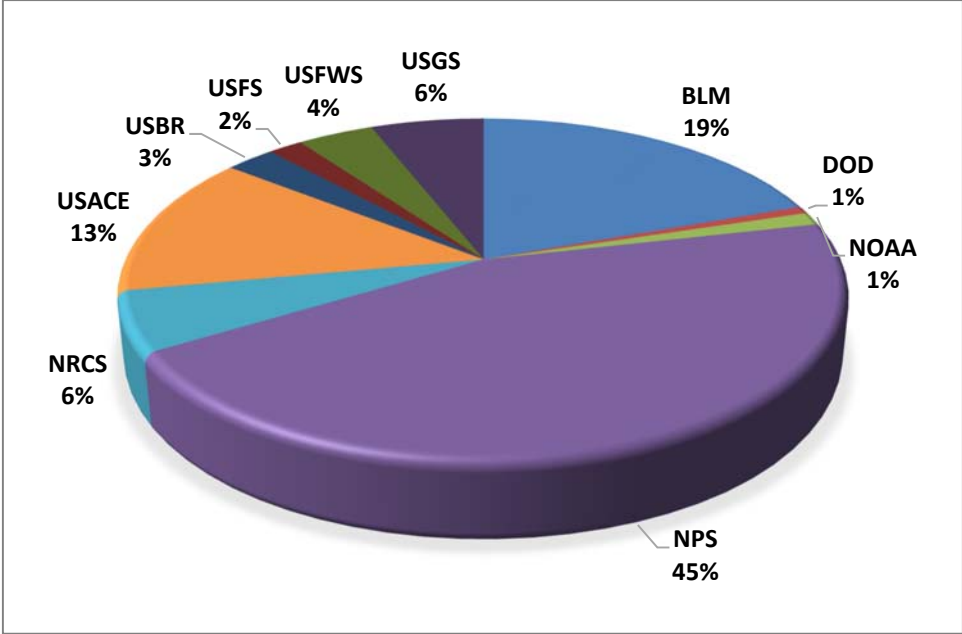
Milestones 2015 – 2019

- Since program inception (FY'01) over \$127 million in project funding has been distributed to twenty partners to support 960 projects
- January 2015 PNW CESU *Cooperative Ventures* e-newsletter
- Improved PNW CESU database and project tracking procedures to provide current and comprehensive data
- Revised and approved Strategic Plan
- January 2015 New Co-Leader SEFS Director Dr. Tom DeLuca
- January 2015 PNW CESU Renewal Self-Assessment submitted
- October 2015 PNW CESU Master Agreement 2015 - 2020 (10/21/2015 – 8/15/2020)
- December 2015 Fall Partners Webinar Meeting
- February 2016 Addition of new agency Bureau of Indian Affairs
- May 2016 PNW CESU launched new website <http://depts.washington.edu/pnwcesu/>
- December 2016 Host Support Task Agreement issued
- January 2017 New Co-Leader Interim SEFS Director Dr. Elizabeth Van Volkenburgh
- February 2017 PNW CESU *Cooperative Ventures* e-newsletter
- May 2017 Addition of new partner Seattle University
- December 2017 Addition of new partner Western Association of Fish and Wildlife Agencies
- January 2018 New Co-Leader SEFS Director Dr. Dan Brown
- May 2018 Addition of new partner Center for Natural Lands Management
- November 2018 Addition of new partner Institute for Applied Ecology
- May 2019 Spring Partners Teleconference Meeting
- December 2019 Fall Partners Teleconference Meeting

Project Activity FY 01-16: \$99,859,783

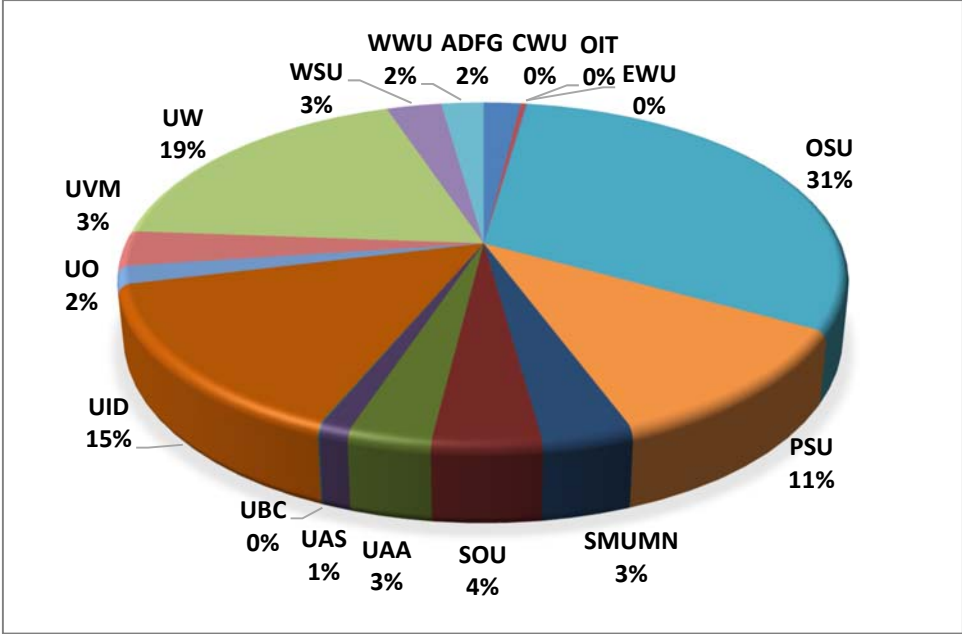
Activity by Agency

Agency	Total Funding
BLM	\$19,518,260
DOD	\$693,179
NOAA	\$1,213,331
NPS	\$44,906,941
NRCS	\$5,683,846
USACE	\$13,474,834
USBR	\$2,608,377
USFS	\$1,826,988
USFWS	\$4,022,256
USGS	\$5,975,555



Activity by Partner

Partner	Total Funding
ADFG	\$1,959,550
CWU	\$252,405
EWU	\$7,245
OIT	\$64,590
OSU	\$30,779,529
PSU	\$11,234,621
SMUMN	\$3,473,638
SOU	\$4,140,540
UAA	\$3,186,516
UAS	\$1,143,525
UBC	\$64,437
UID	\$14,798,236
UO	\$1,699,770
UVM	\$3,325,335
UW	\$18,657,117
WSU	\$2,901,750
WWU	\$2,234,762



Executive Committee Operating Principles

Purpose/Structure

- The purpose of the Executive Committee is to guide the work of the PNW CESU.
- The Executive Committee consists of one representative from each agency member and one representative from each partner institution member.
- The Executive Committee will meet at least yearly.

Responsibilities

- Agency members of the Executive Committee are responsible for ascertaining and coalescing research needs from within their agency and bringing these needs, as appropriate, to the PNW CESU. All research, education and technical assistance conducted under the auspices of the PNW CESU must be handled through the appropriate agency executive committee member or designated agency staff.
- Partner institution members of the Executive Committee are responsible for ascertaining and coalescing research, education and technical assistance expertise within their institution and making this information available to the PNW CESU.
- The PNW CESU co-leaders (one agency Research Coordinator resident at the Host University and one academic representative from the Host University) are responsible for the day-to-day management of the PNW CESU.
- All members of the Executive Committee commit to keeping pertinent information about their organizations' needs and expertise current on the PNW CESU web site.
- All members of the Executive Committee will attend the committee's annual meeting or send an appropriate representative to the meeting.

Decision Making

- The Executive Committee is responsible for bringing recommendations to the co-leaders regarding overall management of the PNW CESU. The committee will: a. Determine criteria for membership in the PNW CESU, b. Guide and refine processes for keeping members informed and up-to-date, c. Introduce other topics as appropriate.
- The co-leaders are members of the Executive Committee. In addition to their membership on the committee, the co-leaders are responsible for convening meetings, preparing meeting agendas and materials and keeping committee members informed.
- The Executive Committee will, whenever possible, operate on a consensus basis. If consensus is not possible, a simple majority can carry a decision or recommendation forward. Any decision or recommendation carried forward without consensus will include information about the dissenting arguments.
- All PNW CESU members must approve admission of new partners or agencies to the cooperative agreement. This means that all members of the Executive Committee either support, or will not object to, decisions on new membership applications.

Composition of the Managers Committee

Every CESU is required to organize a Managers Committee to provide general advice and guidance and to assist in its evaluation from the viewpoint of the federal agency members. In the PNW CESU proposal submitted by the Host University and its partners, it was stated that the federal agency members of the Executive Committee should also serve as members of the Managers Committee. The proposal is silent on any additional participation in the Managers Committee.

Draft approved by agency members present at June 2002 executive committee meeting.

Federal agency members of the Executive Committee will also serve as members of the Managers Committee. Each federal agency member will also have the option of inviting one additional representative from that agency to the Managers Committee meetings, which will be held annually, immediately following the Executive Committee meeting.

Expected Level of Agency/Partner Participation

Each agency and partner member will identify a broker. The broker may be the same individual serving as the member representative on the Executive Committee.

Each agency and partner member must demonstrate long-term commitment to the PNW CESU.

Each agency and partner member must provide timely response (within 2 weeks) to PNW CESU administrative communications.

Each agency and partner member must participate in meetings. If an Executive Committee member cannot attend a meeting, an appropriate representative must be designated to attend the meeting.

Addition of New Members *(update with revisions 2020)*

CESU New Member Application and Approval Process



1849 C Street NW, Room 2737 | Washington DC 20240 | 202.208.5872 | cesu.org

Memorandum

To: CESU Directors and
Partners Through: CESU Network
National Coordinator From: CESU
Network Council
Subject: CESU New Member Application and Approval Process
Date: 30 November 2012

As of November 2012, the CESU Network includes 13 federal agencies, more than 240 academic institutions (including 56 minority serving institutions), and over 70 other nonfederal partners (e.g., tribal, state, and local government agencies; museums, aquariums, zoos, and arboretums; nongovernmental conservation organizations). The CESU Network Council welcomes the addition of new partners to the network. Periodic announcements may be issued (e.g., Federal Register notice) to enhance program awareness and direct interested parties to additional information.

As allowed under the CESU Memorandum of Understanding, the CESU Network Council may establish policies guiding the activities of the Network. This memo, therefore, establishes a standard new member application and approval process that is applicable to all Units. Each CESU is expected to implement these steps from this date forward.

Step 1: New Member Application

Interested parties are welcome to contact the CESU Network National Office and individual CESU director at any time with inquiries. The CESU director sets the deadline(s) for receiving an application (e.g., accepts new member applications throughout the year or on a semi-annual or annual basis). Additionally, the CESU director may invite an applicant to attend the annual CESU partner meeting for an in-person presentation and interview as part of the application process.

The following outlines the required elements for the application for enrollment in a particular CESU.

Federal Agency Partners

Federal agency applicants must be members of the CESU Network Council and signatories on the national CESU Network Federal Agency Memorandum of Understanding. These federal agency partners are eligible for enrollment in any individual CESU, to support collaborative activities aligned with the mission and goals of the CESU Network and individual CESU. The steps for the federal agency partner application process are:

1. Notify the CESU Network National Coordinator of intent to enroll in a particular CESU.
2. Establish initial contact with the host university CESU director to begin dialog regarding enrollment as a new federal agency partner.
3. Submit a formal letter of interest and application (e.g., no more than 10 pages) to the host university CESU director including:
 - Expression of desire to enroll in the CESU as a new federal agency partner.
 - Confirmation that the agency is a member of the CESU Network Council.
 - Confirmation that the agency has read the CESU agreement and agrees to support the CESU mission and goals and fulfill the roles and responsibilities of a federal partner, as described in the CESU agreement.
 - Description of the federal agency, its mission, and the primary focus of collaborative activities to be supported through the CESU in the context of the CESU mission.
 - Description or list of the primary agency programs, departments, or other institutional divisions that will likely be engaged in CESU activities. Include website addresses for further information, as appropriate.
 - Agreement to pay the required one-time \$10,000 enrollment fee to support host university CESU administration (e.g., hosting annual meetings, maintaining website, facilitating communications among partners, coordinating periodic reporting).
 - Designation of a technical representative (with full contact information – name, title, full address, phone, fax, email) to serve on the CESU’s federal managers committee, participate in CESU annual/semi-annual partner meetings, and facilitate internal and external communication, promotion, and response to CESU correspondence and administrative actions (e.g., announcements, new member applications, processing agreements/amendments, five-year reviews).
 - Designation of an administrative or grants and agreements representative (with full contact information – name, title, full address, phone, fax, email) to serve as financial assistance point of contact.
 - Agreement to relay agency-specific research, technical assistance, and educational needs among CESU partners.
 - Signature (or endorsement) from an appropriate agency official, with authority to commit agency resources in a binding multi-year federal cooperative and joint venture agreement (e.g., agency administrator, regional director, division or branch chief).

Nonfederal Partners

Tribal, state, and local governments, academic institutions, nongovernmental conservation organizations, and other nonfederal organizations are eligible to apply for enrollment in any individual CESU, to participate in collaborative activities aligned with the mission and goals of the CESU Network and individual CESU. (Note: Some CESUs do not currently include nonacademic nonfederal partners.) The steps for the nonfederal partner application process are:

1. Establish initial contact with the host university CESU director to begin dialog regarding enrollment as a new partner institution.
2. Submit a formal letter of interest and application (e.g., no more than 20 pages) to the CESU director including:
 - Expression of desire to enroll in the CESU as a new partner institution/organization.
 - Confirmation that the institution/organization has read the CESU agreement and agrees to support the CESU mission and goals and fulfill the roles and responsibilities of a nonfederal partner, as described in the CESU agreement.
 - Description of the institution/organization, its mission, and the primary focus of collaborative activities to be supported through the CESU in the context of the CESU mission.
 - Description or list of the primary programs, departments, or other institutional divisions of relevance to federal land management, environmental, and research agencies that will likely be engaged in CESU activities. Include website addresses for further information, as appropriate.
 - A list of and brief description of the staff or faculty with expertise in disciplines and subject areas of relevance to federal land management, environmental, and research agencies (do not submit CVs).
 - For academic institutions, include a description of student demographics and the institution's status as a minority-serving institution (e.g., as defined by the U.S. Department of Education).
 - Description or list of facilities, equipment, centers, or institutes that would provide support to the research, technical assistance, or educational activities of relevance to federal land management, environmental, and research agencies that will be engaged in CESU activities.
 - Description or list of past research, technical assistance, and educational services supported through federal financial assistance awards that are of relevance to federal land management, environmental, and research agencies that will be engaged in CESU activities.
 - Description or list of current formal agreements and informal relationships with federal agencies that are of relevance to federal land management, environmental, and research agencies that will be engaged in CESU activities.
 - Confirmation of the institution's/organization's willingness to accept a limited overhead rate of 17.5% and cost items to which the rate is applicable for activities conducted through the CESU, including research, technical assistance, and educational services (this overhead rate applies to the entire institution/organization for CESU activities).
 - Designation of a technical representative (with full contact information – name, title,

full address, phone, fax, email) to serve on the CESU steering committee, participate in CESU annual/semi-annual partner meetings, and facilitate internal and external communication, promotion, and response to CESU correspondence and administrative actions (e.g., announcements, new member applications, processing agreements/amendments, five-year reviews).

- Agreement to relay agency-specific research, technical assistance, and educational needs and associated funding opportunities to other institutional/organizational members (e.g., faculty, students).
- Signature (or endorsement) from an appropriate official, with authority to commit institutional resources in a binding multi-year federal cooperative and joint venture agreement (e.g., president, executive director, chief financial officer, vice president for research, director of sponsored programs).
- Letter(s) of support from one or more CESU federal agency partners sponsoring the new partner's application, including a description of successful past collaborative work supported through federal financial assistance awards.

Step 2: New Member Application Review

Following submission of an application for enrollment, the CESU director distributes the application package (via email) to all existing partner technical representatives for consideration. The CESU director determines the timeline and method for review (e.g., comments via email or in person at the annual meeting).

Step 3: New Member Approval (Nonfederal Applicants only)

Once existing partners have reviewed the new member application, the CESU director solicits a vote in favor/not in favor of selection of the applicant for membership. The CESU director shall determine the timeline and method of voting (e.g., via email or in person at the annual meeting). Voting requires a minimum of a quorum of 50 percent of partners. Approval is determined by a super majority (i.e., two thirds or greater) of returned votes in favor of selection for membership. The CESU director informs the applicant of the outcome of the review and approval process.

Step 4: Amending the Cooperative and Joint Venture Agreement

Upon enrollment of a new federal member or approval of a new non-federal member applicant for enrollment, the CESU director sends the application materials (via email) to the CESU Network National Coordinator with instructions to prepare an amendment to the CESU's master agreement. The CESU Network National Office prepares a draft amendment to the CESU master agreement, formally adding the applicant as a new partner. The draft amendment shall be prepared within four weeks of receipt of materials from the CESU director.

Step 5: Amendment Review and Signature Process

The CESU Network National Office sends the draft amendment to the new partner for review and signature. The new partner reviews and processes the amendment, returning the completed signature page by email to the CESU Network National Office. The amendment must be signed by an appropriate official, with authority to commit institutional resources in a binding multi-year federal cooperative and joint venture agreement (e.g., president, executive director, chief financial officer, vice president for research, director of sponsored programs).

Once the completed signature page has been received from the new partner, the CESU Network National Office works with the CESU director to circulate the amendment to existing partners for signatures. Existing partners shall have forty-five (45) days from receipt of the amendment to sign the amendment or provide comments in writing. The amendment is in effect upon receipt of the host institution's signature and 100% of partner signatures or after the 45-day signature period has expired, whichever occurs first. If a partner has not responded within the 45-day signature period, its signature will not be required.

Once the amendment is in effect, the CESU Network National Office works with the CESU director to distribute a digital copy of the fully executed amendment to all existing partners for their files and posts the amendment to the CESU Network national website.

Step 6: New Member Actively Participates

Once the amendment is in effect, the new partner is expected to actively participate in the CESU and CESU Network activities (e.g., support/conduct collaborative projects, respond to CESU correspondence and administrative actions, share announcements/funding opportunities with colleagues, participate in annual/semi-annual partner meetings, disseminate project outputs).

PNW CESU Funded Projects FY15-FY19

Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
BLM	OSU	15	\$6,000	8_/5_/2010	8_/4_/2015		Climate Change Technical Assistance, Oregon
BLM	OSU	15	\$15,000	7_/6_/2012	9_/30/2012	9/6/2015	CESU Youth Initiative - Environmental Education Opportunities, Latino 4-H Camp, Salem District
BLM	OSU	15	\$118,934	6_/6_/2011	6_/5_/2016	9/9/2016	Fire Regimes, Forest Change and Restoration of Forested Plant Associations in the Middle Applegate Watershed, Medford District
BLM	PSU	15	\$71,323	6_/22/2011	6_/21/2016		NP Consensus Center Pilot Project Facilitation, Roseburg District
BLM	PSU	15	\$15,619	6_/29/2011	6/30/2016	9/30/2016	Renewable Energy Partnership Facilitation and Collaboration
BLM	SOU	15	\$17,991				Environmental Education Program - Cascade-Siskiyou National Monument
BLM	PSU	15	\$146,804	9_/6_/2011	9_/5_/2016	10/3/2016	Oregon Biodiversity Information Coordination: Relating landscape attributes to changes in lek attendance at multiple scales in Oregon
BLM	UW	15	\$63,000	10/1_/2011	9_/5_/2016		Plant Conservation, Oregon State Office - Rare Care
BLM	PSU	15	\$267,358	8_/22/2012	8_/21/2017		Northwest Forest Plan Evaluation Model
BLM	OSU	15	\$20,000	9_/17/2012	9_/19/2017		CESU-CCS Yaquina Seabird Study
BLM	WSU	16	\$8,000	2_/14/2013	2_/13/2018		RMP Alternatives on Connectivity for Fender's Blue Butterfly
BLM	UID	15	\$193,000	9_/18/2013	9_/17/2018		Biological Control Agent Evaluation and Development
BLM	OSU	15	\$295,000	9_/9_/2013	9_/8_/2018		Oregon Flora Project
BLM	UW	15	\$55,000	4_/1_/2014	3_/31/2019		BLM OR/WA CESU Flora of the Pacific Northwest Revision
BLM	OSU	16	\$92,994	7_/15/2014	7_/14/2019		BLM OR-WA CESU Identifying Tools Based on What Users Do.
BLM	WSU	15	\$86,000	7_/21/2014	7_/20/2019		WEW Fender's Blue Butterfly Research and Habitat Project
BLM	PSU	15	\$240,283	7_/1_/2014	6_/30/2019		BLM OR/WA CESU Oregon Consensus Facilitation for Resource Management Plans
BLM	OSU	16	\$35,000	8_/19/2014	8_/18/2019		BLM OR-WA Cooperative Ecosystems Studies Unit (CESU) Panther Creek Weather Modeling
BLM	WSU	15	\$16,500	8_/29/2014	8_/28/2019		CESU-Environmental DNA for Inventory and Monitoring Aquatic Species
BLM	OSU	15	\$89,137	9_/18/2014	9_/17/2019		Inner City Youth Institute Program, Oregon State Office
BLM	OSU	15	\$147,025	5_/1_/2015	6/30/2017		BLM OR/WA PNW CESU Managing Understories for Climate Change
BLM	OSU	15	\$99,998	6/15/2015	6/30/2017		Westside Mature Forest Study
BLM	WSU	15	\$34,106	6/26/2015	6/25/2020		Sage-Grouse Movement Analysis, Spokane District
BLM	PSU	15	\$336,500	7/1/2015	6/30/2020		ORBIC Western Snowy Plover Monitoring and Nest Protection
BLM	PSU	15	\$51,983	5/1/2016	4/30/2021		CCSP Western Lily Studies

PNW CESU Funded Projects FY15-FY19

Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
BLM	WSU	15	\$195,000	4 /15/2014	4 /30/2017		Social Science Research, Recreation Visitor Satisfaction Surveys
BLM	OSU	15	\$42,063	10/1 /2015	9 /30/2020		Wild horse and burro contraceptive techniques and protocols
BLM	OSU	15	\$315,189	10/1 /2015	9 /30/2020		WILD HORSE AND BURRO CONTRACEPTIVE TECHNIQUES AND PROTOCOLS: Evaluation of Minimally Invasive Methods of Contraception in Wild Horse and Burro Mares:Tubal Ligation and Hysteroscopically-Guided Oviduct Papilla Laser Ablation
BLM	OSU	16	\$45,000	6 /1 /2016	12/31/2020		BLM OR/WA 4-H International Summer Camp
BLM	OSU	16	\$1,711,110	6 /15/2016	3 /30/2021		BLM OR/WA CESU Sage Grouse Habitat Monitoring and Assessment
BLM	WSU	16	\$30,000	7 /6 /2016			Chaco Frontier Communities Project
BLM	PSU	16	\$19,853	7 /1 /2016	6 /30/2021		Plant Conservation - Citizen Science
BLM	PSU	16	\$223,479	7 /1 /2016	6 /30/2021		OR Biodiversity Information Center and Biological Conservation
BLM	OSU	16	\$20,908	7 /21/2016	7 /20/2021		Central Oregon Live Fules Moisture Monitoring Project
BLM	UW	16	\$93,150	7 /1 /2016	6 /30/2021		Rare Care and Plant Conservation
BLM	SOU	16	\$79,129	8 /23/2016	8 /22/2021		O&C Railroad Buck Rock Tunnel
BLM	UO	16	\$55,000	8 /19/2016	5 /31/2020		CCS Cultural Rimrock Draw Rockshelter
BLM	OSU	16	\$320,000	8 /15/2016	8 /14/2021		BLM OR/WA Pollinators, Western Oregon
BLM	UO	16	\$45,000	8 /29/2016	8 /31/2018		BLM OR/WA CESU Potential Fossil Yield Classification and Curation
BLM	UO	16	\$26,000	8 /29/2016	8 /31/2017		BLM OR/WA CESU Connley Caves Curation
BLM	UO	16	\$30,000	8 /29/2016	8 /31/2018		BLM OR/WA CESU Analysis of Fish Remains in the Paisley Caves Collection
BLM	UO	16	\$25,000	8 /29/2016	8 /31/2018		BLM OR/WA CESU Digitization of Artifacts from Northern Great Basin
BLM	OIT	16	\$45,000	8 /31/2016	8 /30/2021		CESU Drought and Sage Brush: Management Implications
BLM	CWU	16	\$20,000	10/1 /2016	9 /30/2021		Iceberg Point Cultural Field School
BLM	UW	16	\$370,100	9 /15/2016	9 /18/2021		BLM OR/WA PNW CESU Cooperative Research
BLM	OSU	16	\$618,269	9 /20/2016	9 /18/2021		BLM OR/WA PNW CESU Cooperative Research Oregon State University Cooperative Science
BLM	UID	16	\$36,343	9 /19/2016	9 /18/2021		BLM OR/WA PNW CESU COOPERATIVE RESEARCH
BLM	OIT	17	\$10,238	2 /1 /2017	10/31/2017		BLM OR/WA, Inventory of Vernal Pool Suitable Habitat, Klamath Falls Resource Area
BLM	PSU	17	\$157,908	8 /28/2017	8 /27/2022		BLM OR/WA Watershed Assessment Model Development
BLM	UO	17	\$5,600	9 /15/2017	9 /14/2022		BLM OR/WA CESU Archaeological Studies Dry Bones Complex

PNW CESU Funded Projects FY15-FY19

Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
BLM	OSU	17	\$25,000				BLM OR/WA Yaquina Head Outstanding Natural Area (YHONA) Seabird Study
BLM	OSU	17	\$268,500	9 /8 /2017	9 /7 /2022		BLM OR/WA CESU Assessment of Sage-grouse Response to Wildfire and Juniper Removal in SE OR
BLM	OSU	17	\$173,500				BLM OR/WA CESU Oregon Sagegrouse and Sagebrush Obligate Songbird Conservation Research
BLM	SOU	17	\$14,000				BLM OR/WA CESU Acoustic Old Growth Monitoring 1
BLM	PSU	18	\$36,000	9 /18/2018	9 /17/2021		BLM ORWA Recovery Efforts for Western Lily
BLM	OSU	18	\$48,000	9 /14/2018	9 /14/2021		BLM OR/WA CESU Oregon Flora
BLM	OSU	18	\$49,992	9 /21/2018	9 /20/2021		BLM OR/WA Using Applied Science to Identify Best Practices in Sagebrush Ecosystems
BLM	WSU	18	\$28,300	9 /21/2018	9 /20/2021		BLM OR WA West Eugene Wetlands Fender's Blue Butterfly & other Endemic Butterfly Research
BLM	SOU	18	\$16,466	9 /22/2018	9 /21/2021		BLM OR/WA Oregon Spotted Frog Distribution and Movement Study for Parsnip Lakes Habitat Restoration
BLM	OSU	18	\$12,000	10/1 /2018	10/1 /2019		BLM OR/WA All Lands Collaborative Planning Map
BLM	UW	19	\$48,588	4 /1 /2019	3 /31/2022		BLM OR/WA Rare Care: Rare Care Plant Conservation Citizen Science Project
BLM	OSU	19	\$200,000	4 /1 /2019	5 /29/2022		BLM OR/WA Snag Creation Effectiveness Monitoring
BLM	OSU	19	\$37,672	6 /26/2019	6 /25/2022		ORWA CESU Conservation Assessment Guide for Sensitive Fungi
BLM	UO	19	\$50,505	7 /10/2019	7 /10/2022		OR/WA Conserving Oregon's Fossil Heritage through Fossil Preparation
BLM	OSU	19	\$48,094				OR/WA Grazing Season of Use Effects on Sagebrush-obligate Avian Habitat
BLM	OSU	19	\$49,391	7 /25/2019	8 /31/2022		ORWA CESU Year-round Monitoring of Bat Populations in Oregon
BLM	OSU	19	\$100,000	7 /29/2019	9 /30/2022		ORWA CESU SageCon Partnership Technical Support
BLM	WSU	19	\$24,966	8 /2 /2019	8 /1 /2022		ORWA CESU Cultural Resources & Heritage Management Field School
BLM	WSU	19	\$20,000	8 /6 /2019	8 /6 /2022		OR/WA Curation and Stewardship of Archaeological Materials from the Inland Northwest
BLM	PSU	19	\$26,316	8 /22/2019			ORWA CESU Priorizing Seeds for Restoration
BLM	OSU	19	\$7,996	8 /30/2019	8 /30/2022		OR/WA Cascade Siskiyou National Monument (CSNM) Long Term Invertebrate Monitoring
BLM	UO	19	\$49,939	8 /30/2019	9 /30/2022		ORWA CESU Writing and Publication of the Paisley Caves Archaeology Report
NOAA	UAA	15	\$3,307,131				Kachemak Bay National Estuarine Research Reserve (KBNERR)
NPS	SOU	15	\$98,000	9 /1 /2011	9 /1 /2014	8 /31/2016	Vegetation Classification and Mapping at Lava Beds National Monument and Crater Lake National Park
NPS	PSU	15	\$10,892	8 /15/2011	1 /30/2014	8/15/2016	Providing Cultural Research Assistance to Lewis and Clark National Historical Park
NPS	PSU	15	\$248,657	5 /24/2012	7 /30/2016	5 /23/2017	Vegetation Mapping at North Cascades National Park
NPS	OSU	15	\$21,250	8 /30/2012	8/30/2015	8/30/2017	Lichen Inventory for the Southwest Alaska Network

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Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
NPS	UW	15	\$36,942	7_/15/2012	3_/1_/2016	7_/14/2017	Program Support for the Pacific Northwest Cooperative Ecosystem Studies Unit and the Great Basin Cooperative Ecosystem Studies Unit
NPS	OSU	15	\$103,833	4_/1_/2013	12/31/2016	2_/28/2015	Enhanced Monitoring and Data Synthesis of Sagebrush Steppe Communities in Upper Columbia Basin Network Parks
NPS	SOU	15		7_/15/2013	10/21/2015	1_/30/2018	Administrative Support for the Klamath Network-Southern Oregon University Inventory, Monitoring, and Research Partnership
NPS	UID	15	\$28,795	8_/15/2013	8_/14/2018		Administrative Support for the Upper Columbia Basin Network Inventory and Monitoring Program
NPS	PSU	15		8_/1_/2013	8_/29/2015		Investigating the Nisqually Glacier Outburst Flood Potential
NPS	PSU	16		8_/1_/2013	5_/30/2015	8_/31/2016	Northern Alaska National Historic Landmark Condition and Vulnerability Assessment
NPS	SMUMN	15	\$49,900	8_/15/2013	7_/31/2015	9/30/2016	Natural Resource Condition Assessment for Glacier Bay National Park
NPS	PSU	15	\$167,721	8_/1_/2013	10/1_/2014	8_/1_/2018	Yakutat Tlingit Traditional Cultural Property Study, Glacier Bay National Park and Preserve
NPS	SMUMN	15	\$3,003	9_/1_/2013	12/30/2015	2_/29/2016	Natural Resource Condition Assessment for Colorado National Monument
NPS	ADFG	15		9_/1_/2014	12/31/2016		Upper Tanana Community Harvest Assessment
NPS	SMUMN	15		9_/1_/2014	12/31/2016		Natural Resource Condition Assessment for Carlsbad Caverns National Park
NPS	PSU	15	\$81,247	9_/1_/2014	9_/1_/2019		An Ethnohistory Study for John Day Fossil Beds National Monument
NPS	UW	15	\$697,149	9_/14/2014	3/9/2019	3_/9_/2019	George Melendez Wright Initiative For Young Leaders in Climate Change
NPS	PSU	16		8_/15/2014	8_/1_/2016	12/31/2016	A Stable Isotope Approach to Understanding Contaminant Distribution in Food Webs of Stocked versus Fishless Montane Lakes
NPS	UO	15	\$112,750	9_/1_/2014	1_/30/2017	8_/30/2019	Dissemination Strategies for Honoring Tribal Legacies in the Studies of Lewis and Clark: An Epic Journey of Healing
NPS	CWU	15	\$34,558	8_/15/2014	6_/1_/2016	8_/14/2019	Monitoring and Studying the Effects of Atmospheric Deposition and Other Water Quality Threats to Parks In the North Coast and Cascades Network
NPS	OSU	15		8_/15/2014	12/31/2017	12/31/2018	Evaluating Impacts of a Pneumonia Epizootic and Potential for Disease Transmission Among Desert Bighorn Sheep Herds in and near Mojave National Preserve
NPS	UAA	15		9_/15/2014	8_/30/2015	9_/30/2020	Document Expressive Culture of Area Dena'ina
NPS	UAA	15		8_/4_/2014	7_/31/2015		Economic Assessment of the Ambler Mining District Road Access through Gates of the Arctic National Park and Preserve on Subsistence Users
NPS	OSU	15	\$63,584	9_/15/2014	9_/1_/2015	8_/30/2019	Landscape Change Detection in North Coast and Cascades Network (NCCN) Parks in Support of NCCN Landscape Dynamics Monitoring
NPS	PSU	15		9_/15/2014	11/30/2017	9_/15/2020	A Telaquana Trail Cultural Landscape Report within Lake Clark National Park and Preserve
NPS	UID	15		9_/1_/2014	9_/30/2017	8_/31/2019	Technical Assistance (GIS, Database, Science Communication) for the Upper Columbia Basin Network
NPS	ADFG	15		9_/1_/2014	12/31/2018		Energetics, Survival, and Dispersal of Dall's Sheep Rams Under Differing Harvest Management Strategies

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Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
NPS	ADFG	15	\$96,508	3 /1 /2015	9_/30/2016	12/31/2016	Hughes Subsistence Harvest Survey
NPS	OSU	15		4 /1 /2015	1_/31/2018	9 /30/2018	Investigating the Effects of Vessel Traffic on Marine Mammal Vocalizations in Glacier Bay National Park and Preserve
NPS	SMUMN	15	\$605,374	7 /13/2015	9_/30/2017	7 /10/2020	Extending Alaska Region National Hydrography Dataset Editing Protocols and Data Production to Accommodate Wetlands and other Value Added Attributes
NPS	PSU	15		4 /30/2015	6_/30/2016	12/31/2016	Oligohaline Tidal Wetland Plant Community Restoration and Response to Changes in Tidal Flooding and Salinity
NPS	WSU	15		5 /5 /2015	9 /1 /2018		Nutritional Ecology of Brown Bears on the Coast of Katmai National Park
NPS	OSU	15		8 /1 /2015	9 /30/2017		Modeling the Effects of Heavy Metals on Vegetation in Cape Krusenstern National Monument and Noatak National Preserve
NPS	UID	15	\$66,126	6 /25/2015	8 /1 /2016	12/31/2018	Long-term Monitoring of Quaking Aspen (<i>Populus tremuloides</i>) in the Upper Columbia Basin Network
NPS	WWU	15		7 /10/2015	4_/1_/2017	4/1/2018	Plant-Pollinator Interactions in Montane Meadows at Mount Rainier National Park: Assessing Butterfly Distributions, Phenological Relationships, and Climatic Responses
NPS	UW	15	\$55,000	7 /2 /2015	5_/1_/2017	8 /1 /2018	Using Satellite Data to Detect Changes in Glaciers in the Washington Cascades
NPS	PSU	15	\$265,448	7 /20/2015	1 /31/2017	3/31/2020	Olympic National Park Vegetation Inventory Map Product Development
NPS	UW	15	\$86,534	9 /21/2015	7 /31/2019		Population Dynamics of Forest Carnivores in Denali
NPS	OSU	15		6 /1 /2015	8_/1_/2018	8 /1 /2019	"Qamani: Up the Coast, in My Mind, in My Heart" Iflupiaq Place Names, Vol. 2
NPS	UID	15	\$102,864	8 /30/2015	10/30/2017	6 /30/2018	Identify Vulnerable Populations of Dall's Sheep in Alaska's National Parks Using Climate Models
NPS	SMUMN	15		8 /25/2015	9 /30/2017		Natural Resource Condition Assessment for Chickamauga and Chattanooga National Military Park
NPS	OSU	15		9 /11/2015	12/1_/2016	6 /30/2017	High-resolution hydrologic modeling of Glacier Bay National Park
NPS	UW	15	\$214,918	7 /15/2015	1_/31/2017	6 /30/2020	Strategic Approaches for Climate Change Vulnerability Assessment across the National Park System
NPS	WSU	15		7 /20/2015	12/31/2015	9 /30/2016	An Evaluation of eDNA Technology to Detect Clandestine Human Activity at Sequoia and Kings Canyon National Parks
NPS	PSU	15	\$104,951	9 /1 /2015	9 /1 /2020		Fort Vancouver National Historic Site Traditional Use Study
NPS	PSU	15		9 /1 /2015	4 /1 /2017		Analysis, Summary, and Public Archaeology Outreach of Artifacts from an Archaeological Field School at Fort Vancouver National Historic Site
NPS	CWU	15		9 /10/2015	8 /20/2016		Sitka NHP Scholars-in-Parks Program
NPS	PSU	15	\$164,430	9 /15/2015	7_/1_/2017	3 /31/2019	Historic Resource Study of Vancouver Barracks at Fort Vancouver National Historic Site
NPS	PSU	15		9 /1 /2015	9 /1 /2020		An Ethnohistory Study for Pinnacles National Park
NPS	UVM	15		9 /15/2015	3_/31/2017	12/31/2019	Develop Technical Engineering Solutions to address Structural Deficiencies in Significant Traditionally-Built Structures
NPS	OIT	15		9 /1 /2015	9_/15/2016	9 /30/2017	Climate Change Scenario Planning for Montane and Subalpine Species

PNW CESU Funded Projects FY15-FY19

Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
NPS	UO	15	\$79,358	9 /1 /2015	12/31/2016	12/31/2017	Study of Climate Change Impacts on Cultural Landscapes in the Pacific West Region
NPS	OSU	15	\$767,924	9 /1 /2015	12/1/2018	8 /31/2020	Development of a National Parks and Protected Areas Cooperative Studies Program on the Oregon State University Cascades Campus
NPS	WSU	15		9 /1 /2015	11/30/2018		Using eDNA Technology to Detect Amphibians in Yosemite National Park
NPS	UW	15		9 /1 /2015	8 /31/2017		Using LiDAR Data to Assess Forest Structure and Fuels at Oregon Caves National Monument and Preserve and at Whiskeytown National Recreation Area
NPS	WWU	15	\$370,926	9 /10/2015	4 /1 /2018	4 /1 /2019	Preparing National Park Service Records for Improved Public Access
NPS	UO	15	\$55,517	9 /20/2015	12/31/2018	12/31/2018	Technical Assistance in Cultural Landscape Climate Change Adaptation Approaches for the National Park System
NPS	UID	15		9 /23/2015	12/31/2016		Air Quality for Land Managers
NPS	PSU	15		9 /10/2015	9 /9 /2020		An Ethnohistory of Native American Land and Resource Use at Whiskeytown National Recreation Area
NPS	UVM	15		9 /20/2015	10/30/2017		Conducting Historic Preservation Field Schools to Assess and Stabilize the Silver Bell and Golden Bell Mines, Joshua Tree National Park
NPS	UO	15		9 /10/2015	12/15/2017	12/31/2019	Historic Structure Report of the Oregon Caves Chalet
NPS	UW	16	\$179,005	5 /1 /2016	4 /30/2020		Evaluate displacement of birds by recreational activities in Denali National Park
NPS	UVM	16	\$49,674	2 /16/2016	12/31/2016	6 /30/2018	Integration and Synthesis of the Scientific and Professional Literature on Soundscapes and Night Skies and Their Relationship to Outdoor Recreation
NPS	OSU	16	\$100,364	4 /26/2016	12/31/2020		Supporting the Ocean Noise Reference Station Network with Underwater Acoustic Monitoring at Buck Island Reef National Monument
NPS	OSU	16	\$181,981	9 /1 /2016	9 /30/2020		Re-measuring the Effects of Heavy Metals on Vegetation in Cape Krusenstern National Monument
NPS	UW	16		4 /18/2016	7 /11/2016		Development of a Strategic Marketing Plan to Improve Concession Opportunities
NPS	SOU	16	\$374,679	6 /12/2016	5 /31/2017	10/31/2018	Completing Vegetation Mapping Products of Crater Lake National Park and Updating Vegetation Maps of Oregon Caves National Monument
NPS	ADFG	16	\$319,462	7 /21/2016	6 /30/2019	6 /30/2021	Yukon-Charley Rivers National Preserve Harvest Surveys
NPS	WWU	16		7 /20/2016	9 /1 /2017		Assessing the Ecological Condition of Lakes in the North Cascades National Park Service Complex
NPS	UVM	16		9 /16/2016	6 /30/2018	6 /30/2019	Stabilization and Repair of the Bartlett Cabin, Pecos National Historical Park
NPS	UW	16	\$167,208	8 /17/2017	12/30/2019		Impacts of Tour Boat Shore Excursions on Terrestrial Wildlife in Glacier Bay National Park
NPS	OSU	16	\$31,476	9 /1 /2016	12/31/2017	8 /31/2021	Determining Status of Surface Water Quality in Parks of the Pacific West Region
NPS	UID	16	\$99,737	9 /9 /2016	8 /3 /2019		Avian Inventory and Habitat Analysis of the Weippe Prairie, Nez Perce National Historical Park

PNW CESU Funded Projects FY15-FY19

Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
NPS	UID	16	\$104,017	9 /1 /2016	6 /30/2019	8 /31/2020	Technical Assistance in Developing Vegetation Monitoring Protocols for the Upper Columbia Basin Network
NPS	PSU	16	\$191,193	9 /1 /2016	9 /1 /2019	9 /1 /2021	Traditional Cultural Properties and Planning at Yosemite National Park
NPS	UO	16	\$144,986	9 /14/2017	9 /30/2021		Historic Resources Inventory and Documentation for the Skagway and White Pass District National Historic Landmark
NPS	UID	16	\$82,555	8 /22/2016	12/30/2019		Camas Propagation Research for Restoration of Weippe Prairie, Nez Perce National Historical Park
NPS	SMUMN	16	\$130,019	9 /13/2016	3 /31/2018	4 /30/2019	Natural Resource Condition Assessments for Cumberland Island and Cape Hatteras
NPS	UW	16		9 /21/2016	10/31/2018		Natural Resource Condition Assessment and Climate Change Vulnerability Assessment for Oregon Caves National Monument and Preserve
NPS	UW	16	\$178,135	9 /20/2016	9 /19/2021		Leadership, Coordination, and Administrative Oversight for the Pacific Northwest Cooperative Ecosystem Studies Unit (PNW CESU)
NPS	PSU	16	\$391,554	9 /23/2016	9 /23/2021		Research and Public Education on Yakutat Tlingit Traditional Cultural Properties at Glacier Bay National Park and Preserve
NPS	OSU	17		12/30/2016	9 /30/2019	3 /30/2020	Leigh and String Lakes Visitor Use Study at Grand Teton National Park
NPS	ADFG	17	\$100,000	2 /6 /2017	12/31/2018	12/31/2020	Seward Peninsula Moose and Musk Oxen Population Survey
NPS	PSU	17		6 /20/2017	4 /30/2019		Assessing the Impacts of Climate Change on Vulnerable Coastal Cultural Resources
NPS	PSU	17	\$122,915	7 /12/2017	3 /30/2019	12/12/2021	Kobuk Valley National Park Traditional Use Study, Native Villages of Kiana and Ambler
NPS	UW	17		7 /3 /2017	6 /30/2019		Luminescence Dating at Menard Hodges Site
NPS	OSU	17		7 /31/2017	12/31/2022		Monitoring Networks in Support of Landscape Dynamics Monitoring- GLKN
NPS	UW	17	\$146,553	7 /1 /2017	5 /31/2021		Investigate the Ecology of Resident Birds in relation to Climate Change in Interior Alaska
NPS	OSU	17		5 /2 /4201	8 /31/2018	9 /30/2018	Summer Visitor Use and Resource Monitoring at Focal Attractions and Trails in Yellowstone National Park
NPS	SMUMN	17		7 /1 /2017	6 /30/2020		Natural Resource Condition Assessment for Salinas Pueblo Missions National Monument
NPS	UW	17		8 /10/2017	6 /30/2019		Enable Public and Research Access to the Peter Misch Geology Collection through Cataloging and Interpretive Products
NPS	UVM	17	\$280,948	9 /15/2017	10/30/2019	10/30/2020	Conduct Historic Preservation Field School to Assess and Stabilize the Lost Horse Mill, Joshua Tree National Park
NPS	PSU	17	\$423,566	9 /15/2017	1 /26/2020	5 /30/2020	Mount Rainier and North Cascades National Parks Vegetation Inventory Map Product Development
NPS	UID	17		8 /15/2017	5 /31/2018		Landscape Architecture Design Prescriptions for the Craters of the Moon Visitor Center Picnic Area
NPS	UO	17		8 /30/2017	12/15/2018	12/31/2019	Complete Historic Structure Report of the Pinnacles Bear Valley School
NPS	PSU	17	\$145,746	9 /6 /2017	12/31/2018	1 /31/2020	Public Archaeology Field School Analysis, Archaeological Overview and Assessment, and Archaeology Outreach at Fort Vancouver National Historic Site
NPS	WSU	17		9 /1 /2017	9 /1 /2019		Documenting African American Migration, Segregation, and Civil Rights History at Manhattan Project National Historical Park, Hanford

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Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
NPS	UO	17		9 /10/2017	12/31/2020	12/31/2021	Nominate "Mission 66" Properties at Crater Lake National Park to the National Register of Historic Places
NPS	UW	17		8 /1 /2017	5 /1 /2018		Estimating risk to humpback whales from shipping: a comparative approach from Glacier Bay National Park, Alaska, and Francisco Coloane Marine Protected Area, Chile
NPS	UO	17		8 /21/2017	6 /1 /2022		FOUN Cultural Landscape Report
NPS	UO	17		7 /1 /2017	6 /1 /2022		PECO Cultural Landscape Report
NPS	SOU	17	\$276,784	9 /15/2017	1 /30/2019	1 /30/2021	Inventory, Monitoring, Education, and Research Partnership between the Klamath Network and Southern Oregon University
NPS	UW	17		8 /31/2017	12/31/2018		Characterizing Spotted Owl Habitat Using LiDAR
NPS	UO	17		9 /15/2017	1 /31/2019	8 /31/2020	Prepare National Register Nomination for Santa Rosa Island Archeological District
NPS	OSU	17		9 /15/2017	6 /28/2019	12/30/2019	Development of Dog Management Monitoring Program and Protocols for Golden Gate National Recreation Area
NPS	OSU	17	\$257,228	9 /15/2017	1 /31/2019	9 /30/2021	Pacific Northwest Bat Identification and White-Nose Syndrome Surveillance
NPS	PSU	17	\$70,972	9 /5 /2017	9 /30/2019	12/15/2021	Historic and Contemporary Tribal Uses and Issues in the Lower Columbia Region
NPS	UID	17	\$65,152	9 /21/2017	10/1 /2019	9 /1 /2021	Administrative Support for the Upper Columbia Basin Network Inventory and Monitoring Program
NPS	WSU	17		9 /25/2017	8 /31/2020		Habitat Assessment for Re-establishing Extirpated Cascades Frog in Lassen Volcanic National Park
NPS	WSU	18	\$43,874	1 /2 /2018	5 /31/2020		The Effect of Bear Viewers on Bears at Katmai National Park & Preserve
NPS	PSU	18	\$237,247	9 /1 /2018	9 /1 /2023		Prepare Kijik National Historic Landmark Cultural Landscape Report
NPS	PSU	18		8 /1 /2018	12/31/2019		Traditional Use Study: An assessment of Caribou and other resources of cultural significance in Noatka, Alaska
NPS	ADFG	18	\$115,594	7 /1 /2018	9 /30/2020		Community Harvest Assessment Buckland Baseline Update
NPS	WWU	18	\$223,820	7 /1 /2018	6 /30/2022	7 /14/2022	North Pacific Stepping Stones: Past, Present, and Future Linkages between the Floras of Kamchatka, the Aleutian Islands and Alaska
NPS	PSU	18			9 /15/2021		Past Beringian Cultural Exchange and Interaction: a Study of Ceramic Technology
NPS	UW	18		7 /1 /2018	12/12/2019		Ensuring Consistency in Plant Nomenclature in the North Coast and Cascades Network National Park Units
NPS	OSU	18		6 /1 /2018	12/15/2020		Educating Students on Wildlife Sampling Methods and Determining Prey Use of Mesocarnivores at Crater Lake National Park
NPS	UO	18		7 /19/2018	12/30/2020		MAPR Cultural Landscapes Inventory for Tech Area 18
NPS	PSU	18		9 /5 /2018	12/15/2021		Tribal Perspectives on Cultural Resources and Interpretation at John Day Fossil Beds National Monument
NPS	WSU	18	\$68,978	7 /1 /2018	6 /15/2022		Quantifying Lichen Community Composition, Nitrogen Content, and Nitrogen Stable Isotope Composition to Assess Nitrogen Critical Loads at North Cascades National Park Service Complex

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Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
NPS	UO	18		9 /1 /2018	6 /30/2019		Cultural Landscape Report of Ford Island Chief Petty Officer's Bungalow Neighborhood and Battleship Row
NPS	OSU	18	\$289,683	8 /15/2018	7 /31/2023		Promoting Sustainability of Desert Bighorn Sheep to Enhance Conservation and Recreation
NPS	OSU	18	\$181,085	9 /5 /2018	7 /31/2020		Pika Monitoring through a National Parks and Protected Areas Cooperative Studies
NPS	OSU	18		9 /15/2018	2 /28/2021		Lepidoptera (Butterflies and Moths) of Crater Lake National Park
NPS	WWU	18		9 /1 /2018	12/31/2020		Preserve, Catalog, and Digitize Oral History, Video, and Film Collections of Yellowstone National Park- Student Internship
NPS	OSU	18		6 /15/2018	10/1 /2019	10/1 /2021	Condition Assessment of Bear Management and Indicators at Sequoia & Kings Canyon National Parks
NPS	WSU	18	\$60,000	9 /10/2018	12/29/2020		Baseline Ecological Metrics and a Focused Condition Assessment of Mountain Lakes in the Pacific Northwest
NPS	OSU	18	\$86,710	9 /15/2018	7 /31/2020		Integrated Fire and Weed Management Planning through a National Parks and Protected Areas Cooperative Studies Program at Oregon State University Cascades Campus
NPS	WWU	18		9 /15/2018	12/31/2020		Preserve, Catalog, and Digitize Oral History, Video, and Film Collections of Yellowstone National Park- Student Internship
NPS	WSU	18		7 /1 /2018	6 /30/2020		National Park Service Complex
NPS	UW	18		9 /10/2018	12/30/2021		Developing Adaptive Management Strategies to Promote Resiliency in Alpine Plant Species
NPS	UW	19		7 /3 /2019	12/30/2021		Citizen Science for Cluing in to the Health of Alaska's Coastal Parks: Engaging Local Communities in Tracking Seabird Mortality
NPS	ADFG	19		8 /26/2019	12/31/2022		Identify vulnerable populations of mountain goats
NPS	UVM	19		4 /25/2019	4 /30/2021		Conduct Engineering Assessment and Develop Options for Treatment of the Mission Church, Tumacacori National Historic Park
NPS	OSU	19		8 /1 /2019	12/31/2021		Sierra Nevada Red Fox: Range, Habitat, and Occupancy Models
NPS	CWU	19		8 /1 /2019	6 /1 /2021		Monitoring Precipitation Chemistry and Atmospheric Deposition at a High-Elevation Site in Mount Rainier National Park
NPS	OSU	19		7 /15/2019	12/30/2021		Collaborative Bat Monitoring across the Western US
NPS	OSU	19		7 /15/2019	8 /31/2020		Develop Phase II of Repeat Photography Program to Engage Visitors and Document Landscape Changes in Yellowstone National Park and Continued Analysis of Visitor Use and Resource Impacts at Focal Attractions
NPS	WSU	19		8 /1 /2019	6 /3 /2021		Historical Ecology to Understand Human Responses to Environmental and Climate Change: Research, National Register Nomination, and Public Interpretation of Two Archeological Sites at Redwood National Park
NPS	PSU	19		9 /15/2019	12/30/2022		Ethnographic Overview and Assessment of Craters of the Moon National Monument and Preserve
NPS	UO	19		8 /1 /2019	7 /30/2020		Cultural Landscape Report of Prairie Creek Fish Hatchery, Redwood National Park
NPS	PSU	19		9 /1 /2019	7 /31/2024		Technical Assistance in Curation and Relocation of Fort Vancouver Archeological Museum Collections and in Developing Archeological Public Educational Products
NPS	UW	19		9 /15/2019	12/15/2020		Advancing the Public Connections of the North Coast and Cascades Research Learning Center
NPS	UVM	19		9 /15/2019	1 /31/2022		Preservation Field School and Repair of the Keane Wonder Aerial Tramway Towers at Death Valley National Park

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Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
NPS	UO	19		9 /15/2019	11/11/5202		Teaching K-12 Students Stories and Perspectives of the Lewis and Clark National Historic Trail through Curriculum Development and Teacher Training
NPS	UVM	19		9 /15/2019	4 /30/2023		Preservation Field School and Repair of the Gem Mine Headframe, Ore Bin, and Mill at Death Valley National Park
NPS	PSU	19		9 /22/2019	12/15/2023		Coast Salish Ethnobotany: A Traditional Use Study of National Parks in Western Washington State
NPS	PSU	19		9 /15/2019	1 /15/2023		Ethnographic Overview and Traditional Associations Study of Channel Islands National Park and Santa Monica Mountains National Recreation Area
NPS	OSU	18					Landscape Change Detection with National Park Service Inventory and Monitoring Networks in Support of Landscape Dynamics Monitoring- GLKN
NPS	OSU	19					Landscape Change Detection with National Park Service Inventory and Monitoring Networks in Support of Landscape Dynamics Monitoring- GLKN
NRCS	OSU	15	\$26,345				Plant Materials Center Operation and Maintenance
NRCS	OSU	17	\$250,000				Identify key ground beetles species that feed on best slugs in no-till systems
NRCS	OSU	17	\$100,000				Conserve Sage Grouse and Advance Sagebrush Habitat and Rural Community Health in Oregon
NRCS	OSU	17	\$100,000				Identifying soil biological properties that change in response to either management or natural
NRCS	OSU	16	\$162,800	12/22/2015	9 /30/2017		Aerial surveys to estimate lesser prairie-chicken population response to USDA Farm Bill program
NRCS	OSU	16	\$200,154	7 /8 /2016	9 /30/2018		Evaluating Greater Sage-Grouse response to landscape-level removal of encroaching juniper
NRCS	OSU	16	\$701,040	9 /1 /2016	9 /30/2019		Lesser Prairie Chicken Initiative
NRCS	OSU	16	\$154,040	6 /16/2016	9 /30/2019		Delivery Soil Health Assessment
USACE	UID	15					Columbia River Fish Mitigation
USACE	OSU	15				6 /30/2016	Columbia River Fish Monitoring and Evaluation Studies
USACE	PSU	15	\$317,331		4 /30/2016	8 /31/2019	Dexter Reservoir Water Quality Research and Evaluation Studies
USACE	UID	15		6 /1 /2015	9 /30/2016		Monitoring upstream migration and potential causes of prespawn mortality in adult UWR Chinook, 2015
USACE	OSU	15					Developing Innovative Techniques for Assisted Species Dispersal to Minimize Potential Training Impacts
USACE	OSU	15		9 /29/2015	9 /29/2016		Zebrafish Embryo Toxicity Assays
USACE	UID	16	\$3,340,966	8 /23/2016	11/30/2017	9 /30/2020	Columbia River Basin (CRB) Fish Monitoring and Evaluation Studies
USACE	OSU	16	\$2,167,738	9 /22/2016	11/30/2017	1 /31/2020	Willamette River Instream Ecological Flow Science Review and Analyses Prioritization” and “Adult Salmonids Trap and Transport Success Above Dams
USACE	UW	16	\$209,950	9 /27/2016	9 /30/2017	5 /31/2019	Evaluating Flora and Fauna Diversity in the John Day/ Willow Creek Project for Special Status Species Protection
USACE	PSU	17	\$309,103	4 /26/2017	4 /26/2018	4 /25/2019	Understanding Avian Flocks Near and Entering Civil Infrastructure for Species of Concern

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Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
USACE	PSU	17	\$160,000	9 /25/2017	9 /30/2018	9 /23/2019	CE-QUAL W2 Model Support for Columbia and Snake River System
USACE	PSU	18		9 /19/2018	9 /18/2019		Development and Validation of Riverine Water Quality Models
USACE	PSU	18	\$546,429	8 /23/2018	8 /22/2019		Models Multi-dimensional Surface Water Water Quality Model
USACE	UW	18					Evaluating Flora and Avian Diversity in the Dalles Project for Special Status Species Protection
USACE	IAE	19		3 /27/2019	3 /27/2020		Pollinator Studies, Willamette Valley, OR
USACE	CNLM	19		4 /11/2019	4 /11/2020		Pollinator Studies: Willamette Valley, OR
USACE	UBC	19		9 /16/2019	9 /16/2020		Investigation of fish passage alternatives for the Willamette Valley Project with focus on the Middle Fork Willamette River
USACE	PSU	19		9 /18/2019	9 /18/2020		Water Quality Modeling Support for Columbia and Snake River System".
USACE	OSU	19		9 /25/2019	9 /25/2020		Development of Genomics and Behavioral Assays for Understanding Neurotoxicity of Chemicals and Effects on Performance
USACE	UW	19		10/1 /2019	9 /30/2022		Nearshore Event Experiment (DUNEX); Academic Research Study: Coherent drifter arrays during DUNEX (Topic 10)
USBR	UID	16			9 /30/2017		South Fork Boise River Hydrologic Modeling
USBR	UID	15	\$141,264				2014-2019 Lapwai Basin Steelhead Density Monitoring
USBR	WSU	15				6 /15/2016	Basin Data Management Project
USBR	PSU	15		3 /26/2015	9 /30/2015	10/30/2015	Hydrodynamic and Water Quality Modeling of Lake Roosevelt
USBR	UW	17		11/18/2016	11/30/2016		Recalibration of Columbia Basic VIC Model
USBR	UW	17					Recalibration of Columbia Basic VIC Model
USFS	PSU	15	\$20,306	8 /11/2011	8/10/2016		DESIGNING A DATABASE OF ECONOMIC INFORMATION RELATED TO NORTHWEST FOREST INDUSTRIAL ACTIVITIES
USFS	PSU	15	\$8,000	8 /7 /2012	9 /30/2016	8 /6 /2017	Human Ecology Mapping for Foreset Planning in the US Forest Service
USFS	PSU	15	\$241,206	1 /1 /2013			Modeling Forest Resilience, Biomass and Carbon Management Potential
USFS	UAA	15	\$470,729	7 /1 /2014	7 /1 /2019		Using Tree Rings to Understand the Impacts of Climate Change in Interior Alaska
USFS	UAS	15	\$74,504				Stream Discharge and Water Balance in Alaska
USFS	PSU	15	\$174,452				Bio-Monitoring Pollution with Moss
USFS	UAS	16	\$179,884				Modeling Stream Ecosystem Dynamic Groups to Support River Restoration and Management
USFS	UAS	17	\$86,833				Alaska Coastal Rainforest Center Director
USFS	UAS	17	\$44,975				Integrating Tribal and Governmental Management into Regional Conservation Planning in Alaska

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Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
USFS	PSU	17	\$57,385		6 /30/2019		Understanding and Evaluation Diversity
USFS	PSU	18	\$40,008	6 /18/2018			Economic Assessment of the Stewardship Contracts on the Gifford Pinchot National Forest
USFS	SU	18	\$10,000				Designing Green Infrastructure to Improve Aquatic and Riparian Habitat in the Pacific Northwest
USFS	PSU	18	\$68,000	5 /9 /2018			Modeling Economic Drivers and Restoration Strategies on Forest Resilience
USFS	CWU	18	\$29,261				Forest System
USFS	UO	19	\$15,000				Need title
USFS	PSU	19	\$50,000				Need title
USFS	SU	19	\$10,000				Need title
USFS	PSU	19	\$43,390				Need title
USFS	PSU	18	\$54,179	7 /17/2018			2019 WSP Nest Monitoring & Protection
USFWS	WSU	15	\$205,905	3_/17/2014	12/31/2014	12/31/2016	Biological Effectiveness of Green Stormwater Infrastructures (GSI)
USFWS	PSU	15	\$19,420	7_/1_/2014	6_/30/2016	6 /30/2018	Geospatial Support for F1 NWRS
USFWS	PSU	15	\$30,000	11/1_/2014	9_/30/2016		2014 Western Snowy Plover Nest Monitoring and Protection
USFWS	PSU	15	\$41,945	6 /15/2015	9/30/2020		Pacific Region Fishery Resources PSU Graduate Assistant
USFWS	PSU	15	\$96,375	8 /31/2015	6 /15/2020		Cultural Resource Management Student Experience Program
USFWS	UID	15	\$95,000	6 /30/2015	9 /30/2020		Burbot Study
USFWS	UW	15	\$34,023	8 /1 /2015	10/1 /2015		Provide collaborative services to facilitate conservation action for the North Pacific Landscape Commission
USFWS	PSU	15	\$79,133	9 /1 /2015	9 /1 /2020		Development of Pacific Region Invasive Species Prevention Policy and Associated Technical Resources
USFWS	PSU	15	\$80,944	10/1 /2015	12/31/2016		2016 WSP Nest Monitoring & Protection
USFWS	UO	15	\$7,003	8 /1 /2015	9 /30/2016		North Pacific Landscape Conservation Cooperative - Tribal Climate Change Partnership: Climate Science Connections Database
USFWS	UW	16	\$82,545	1 /1 /2016	9 /30/2017		Stormwater Threats and Clean Water Solutions for Puget Sound Salmonids and their Habitats
USFWS	WSU	16	\$44,546	6 /1 /2016	9 /30/2017		Student Experience Program in Cultural Resource Management
USFWS	WSU	16	\$369,100	5 /12/2016	4 /30/2019		Field Test of Plants and Fungi on Bioretention Performance Over Time
USFWS	PSU	16	\$19,446	9 /16/2016	12/31/2017		Synthesis of current science and development of decision support tools, for assisted migration of freshwater species
USFWS	OSU	16	\$50,000				Developing resilience to natural and cultural dimensions of climate change: Tribal Perspectives and applications
USFWS	UW	16	\$100,000	10/1 /2016	9 /30/2018		Building Tribal Capacity for Climate Change Vulnerability Assessment

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Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
USFWS	UW	17	\$52,000	2 /2 /2017	7 /30/2019		Monitor Impacts to Rare Plant Species from Range Fire
USFWS	OSU	17	\$75,000	5 /10/2017	5 /10/2018		Influence of Raves on Baker GRSG Pop
USFWS	OSU	17	\$257,170	7 /12/2017	9 /30/2020		Analysis of Long-Term Seabird Colony Legacy Data
USFWS	UAS	17	\$24,346	6 /1 /2017	12/31/2018		Yellow-Cedar Decline and Recovery: Climate Monitoring and Data Assimilation
USFWS	UO	17	\$15,009	9 /15/2017	9 /30/2019		North Pacific Landscape Conservation Cooperative - University of Oregon: Fostering Tribal Partnerships
USFWS	WSU	17	\$6,229	7 /15/2017	7 /14/2018		HexSim Parameterization Support
USFWS	PSU	17	\$47,591	10/1 /2017	9 /30/2019		2018 WSP Nest Monitoring & Protection
USFWS	UW	17	\$16,426	10/1 /2017	9 /30/2020		Stormwater Threats and Clean Water Solutions for Puget Sound Salmonids and their Habitats
USFWS	OSU	17	\$35,603	8 /2 /2017	7 /31/2018		Grazing Season of Use OSU Study
USFWS	OSU	17	\$70,815	12/1 /2017	3 /31/2019		CATE Monitoring Strategy 2018
USFWS	OSU	17	\$20,000	8 /28/2017	5 /10/2018		Influence of Raves on Baker GRSG-Part 2
USFWS	UW	17	\$5,100	8 /18/2017	6 /30/2018		Flora of the Pacific Northwest
USFWS	OSU	18	\$23,238	7 /13/2018			Ecological evaluation of sea otter reintroduction to Oregon's coastal ecosystem
USFWS	WSU	19			6 /30/2020		Field Test of Plants and Fungi on Bioretention Performance Over Time
USFWS	WSU	18	\$310,824				Biological Effectiveness of Green Stormwater Infrastructures (GSI)
USFWS	WSU	19		11/1 /2018	12/31/2020		Longevity of bioretention depths for preventing acute toxicity from urban stormwater runoff
USFWS	WSU	18	\$61,824	11/17/2017	11/17/2020	8 /30/2019	Student Experience Program in Cultural Resomce Management
USFWS	OSU	19		8 /15/2019	9 /30/2021		Influence of Ravens on Baker} GRSG Population
USFWS	PSU	19		10/1 /2019	12/31/2020		Western Snowy Plover Nest Monitoring and Protection, Oregon Coast- FY2019
USFWS	UID	19		7 /8 /2019	11/30/2020		Effectiveness of thinning-and- burning treatments on persistence of Northern Idaho Ground Squirrels
USFWS	UID	19					Columbia Basin Pygmy Rabbit Recovery
USFWS	UW	19		8 /31/2017	9 /30/2021		Cooperative Recovery of Spalding's Catchfly
USFWS	UW	19		7 /1 /2019	4 /30/2020		Assisting Recovery of Wenatchee Mountain Endemics
USFWS	OSU	18					Influence of Ravens on Baker GRSG Pop
USFWS	OSU	16		9 /1 /2016	12/31/2017		Comparison of Non-invasive Survey Methodologies for the Burrow-nesting Seabirds
USFWS	OSU	19		9 /1 /2019	8 /31/2024		Demographic study analysis to re-evaluation the northern spotted owl survey protocol
USFWS	OSU	19		7 /1 /2019	12/31/2020		Reevaluating Cascades Frog Status in Oregon

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Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
USGS	UW	16	\$12,000	3 /7 /2011	3 /6 /2016		An Algorithm to Locate Acoustically-tagged Fish
USGS	UW	15	\$164,999	9 /1 /2012	8 /31/2017		The Western Mountain Initiative: Vulnerability and Adaptation to Climate Change in Western Mountain Ecosystems
USGS	WSU	16	\$20,000	4 /15/2013	4 /14/2014	6 /30/2016	Activity Budgets of Polar Bears in Response to Variation in Seasonal Sea Ice Conditions
USGS	PSU	15	\$5,100	9 /1 /2013	8 /31/2014	8 /31/2018	Glacier Change in the Rocky Mountain West
USGS	UID	15	\$23,238	8 /1 /2014	7 /31/2015	9 /30/2017	Hosting and Supporting the Coastal Biogeographic Risk Analysis Tools at the University of Idaho Northwest Knowledge Network
USGS	WSU	15	\$54,179	8 /15/2014	6 /30/2016		Daily Activity Budgets of Polar Bears in Response to Variation in Seasonal Sea Ice Condition
USGS	UAS	15	\$12,000	4 /15/2015	9 /30/2018		Ice2O: Assessing Icefield-to-Ocean Change in the PCTR
USGS	OSU	15	\$25,000	4 /15/2015	9 /30/2018		Developing Tools to Assess Impacts of Glacier Change on Gulf of Alaska Hydrology and Ecology
USGS	UW	15	\$20,005	9 /21/2015	9 /20/2017		Geodetic Glacier Mass Balances in the Pacific Northwest
USGS	UW	16	\$80,000	6 /1 /2016	5 /31/2018	12/31/2018	Predicting the Next High-Impact Insect Invasion: Elucidating Traits and Factors Determining Risk of Introduced Herbivorous Insects on North American Native Plants
USGS	PSU	16	\$101,100	4 /15/2016	4 /14/2021		Remote Sensing of Glaciers and Glacier Change in the American West
USGS	OSU	16	\$42,998	7 /15/2016	7 /14/2017	7 /14/2019	A Multi-Sensor Stream Monitor for Headwater Streams
USGS	UW	16	\$137,395	9 /22/2016	9 /21/2018		Identifying and Evaluating Refugia from Drought and Climate Change in the Pacific Northwest
USGS	UW	17	\$39,752	7 /1 /2017	12/31/2018		Using Data and Models to Assess Impacts and Adapt to Climate Change: Handbook for Current and Future Stream Temperature
USGS	UW	17	\$37,565	9 /1 /2017	8 /31/2018		The Western Mountain Initiative: Vulnerability and Adaptation to Climate Change in Western Mountain Ecosystems
USGS	OIT	17	\$60,000	8 /23/2017	2 /22/2018		Phenology and Climate Change in the Pacific Northwest: Status and Resources for Management Decision Making
USGS	UW	17	\$98,313	9 /5 /2017	3 /4 /2018		Synthesis of Forest Vegetation Changes Resulting from Changing Wildfire Regimes
USGS	UW	18	\$166,756	5 /1 /2018	4 /30/2019		Use Detection Dog Teams to Survey Wind Turbines for Bird and Bat Fatalities
USGS	WSU	18	\$28,794	5 /1 /2018	4 /30/2019		The Development and Calibration of Techniques to Measure Energy Expenditure and Activity in Grizzly Bears
USGS	WSU	18	\$47,000	9 /1 /2018	12/30/2020		Macronutrient Requirements and Intake of Polar Bears
USGS	OSU	19	\$47,000	2 /1 /2019	1 /31/2020		Synthesis of Nitrogen Fixation Rates and Drivers Across the Terrestrial Biosphere
USGS	UAA	19	\$209,034	12/17/2018	12/16/2019		Coordinating Alaska Hydrography Updates
USGS	WSU	19	\$8,460	3 /4 /2019	3 /3 /2020		Distribution of Foothill Yellow-Legged Frogs on Timberlands in Mendocino County, California
USGS	UW	19	\$87,889	3 /11/2019	3 /10/2020		Climate Refugia and Resilience Atlas: Identifying Priority Areas for Conserving Species of Concern in a Changing Climate
USGS	OSU	19	\$27,883	4 /15/2019	4 /14/2020		An eDNA-Validated Habitat Suitability Model for Torrent Salamanders

PNW CESU Funded Projects FY15-FY19

Agency	Partner	Start	Total Funding	Start Date	End Date	End Date	Title
USGS	OSU	19	\$48,929	9 /15/2019	9 /14/2021		Nitrogen Fixation and Mineral Weathering in Forests of the Oregon Coast Range
USGS	UW	18					Using Data and Models to Assess Impacts and Adapt to Climate Change: Handbook for Current and Future Stream Temperature
USGS	OSU	19					A Multi-Sensor Stream Monitor for Headwater Streams
USGS	OSU	19			1 /31/2021		Synthesis of Nitrogen Fixation Rates and Drivers Across the Terrestrial Biosphere
USGS	UAA	19			12/16/2020		Coordinating Alaska Hydrography Updates
USGS	OSU	19			12/31/2022		An eDNA-Validated Habitat Suitability Model for Torrent Salamanders

December 14, 2015 Annual Partners Meeting

2015 December 14 Minutes Attendees: Chris Lauver (NPS), Tom DeLuca (UW), Teresa Bresee (UW), Tom Fish (National CESU), Cheri Yost (National CESU), Rachel Novak (BIA), Louisa Evers (BLM), Jessica Clark (BLM), Burt (BLM), Cheryl (BLM), Melinda Ritacco (USBR), Bill Vagt (DOD), Christopher Watkins (NRCS), Paul Heimowitz (USFWS), Dale Blahna (USFS), Carrie Phillips (USGS), Julie Guggino (CWU), Jherime Kellermann (OIT), Lisa Zurk (PSU), Andy Roberston (SMUMN), Matthew Carlson (UAA), Karen Schmitt (UAS), Lisa Shipley (WSU), Daniel Coleman (ADF&G).

May 9, 2017 Annual Partners Meeting

2017 May 9 Minutes Attendees: Tom Fish (National CESU Network), Chris Lauver (NPS), Teresa Bresee (UW), Louisa Evers (BLM), Paul Heimowitz (USFWS), Simon Kihia (USFS), Jason Podrabsky (PSU), Kevin (SMUMN), Rachel Brown (Seattle U), Karen Schmitt (UAS), Matthew Carlson (UAA), Heather Crowley (BOEM), Sherri Whittaker (USACE), ? ADF&G, Julie Guggino (CWU).

2018 May 2018: pending minutes attendees list

2019 Dec 4 2019 Minutes Attendees: Tom Fish (National CESU Network), Chris Lauver (NPS), Teresa Bresee (UW), Stewart Allen (BLM), Jonathan Lilley (BOEM), Jeff Foster (DOD), Michael Liddel (NOAA), Sherry Whitaker (USACE), Mark Ricca (USGS), Kelly Clifton (PSU), Jennifer Ward (PSU), Andrew Robertson (SMUMN), Rachel Brown (SU), Matthew Carlson (UAA), Kelly Jensen (UAS), Murdock McAllister (UBC), Alistair Smith (UID), Kate (UO), Thomas Kaye (IAE).