



**Stakeholder Advisory Committee
Winter Meeting (Online)**

MEETING NOTES

March 4, 2020 | 10:00 – 11:30 am PDT

Attendees

Tribes and Tribal Organizations

Affiliated Tribes of Northwest Indians - Don Sampson, Chas Jones
Columbia River Inter-Tribal Fish Commission – Laura Gephart

Federal Agencies

Bonneville Power Administration – Chris Furey
Environmental Protection Agency – Rob Elleman
National Park Service – Chris Lauver
National Oceanic and Atmospheric Association – Kevin Werner
North Central Climate Adaptation Science Center - Aparna Bamzai-Dodson
Northwest Climate Adaptation Science Center – Nicole DeCrappeo, Betsy Glenn
USDA Natural Resources Conservation Service – Jolyne Lea
USDA Northwest Climate Hub – Holly Prendeville, Paris Edwards
U.S. Fish and Wildlife Service – Sean Finn, Mike Hudson, John Tull

State Agencies

Washington Department of Fish & Wildlife – Lynn Helbrecht

Invited Speakers and Observers

Oregon State University – Lindsey Thurman
Tribal Climate Change Project, University of Oregon - Kathy Lynn, Haley Case-Scott
University of Washington –Meade Krosby, Mary Ann Rozance, Amy Snover, Darcy Widmayer
Washington State University – Jan Boll, Julie Padowski

FY2020 CASC Budget Increase

Leads: Nicole DeCrappeo

Purpose: Provide update about recent budget increases across the CASC network.

Approved federal budget increases:

- \$13M increase for entire CASC network
 - o \$4M set aside to stand up a 9th CASC in Midwest
 - o \$1M increase for each regional CASC, as well as the national CASC
 - NW CASC plans to use this allocation to fill critical staffing needs, fund continuing projects and start a robust suite of new activities in FY20
- Given the champions of the CASCs' work in Congress, we feel confident and hopeful that this level of funding will continue

Science for Managing NW Natural and Cultural Resources

Leads: Betsy Glenn, Lindsay Thurman, Meade Krosby

Purpose: Provide update on the suite of currently-funded NW CASC projects, highlight two of these current projects and discuss review process for FY20 proposals under consideration.

FY19 Project Portfolio (Betsy Glenn)

As a reminder, all NW CASC-funded projects align with management priorities in the NW CASC Science Agenda. NW CASC's FY19 funded research projects include:

Forest Fires in Western Cascadia: Evaluating Drivers and Effects to Inform Climate-Adaptive Management Responses

Lead Institution: UW

PIs: Brian Harvey & Crystal Raymond

Partners: North Cascades National park, Tulalip Tribes Natural Resources, USFS, WA DNR

The PIs will work with North Cascades National Park, the Tulalip Tribes Natural Resources, U.S. Forest Service and WA DNR to co-develop foundational information on the drivers, effects and adaptation options for post-fire management in west-side forests. In addition, this project will leverage long-term climate data and regional climate modeling to measure vegetation response to recent west-side fires. These data will also be available as regional maps showing the most plausible outcomes of post-fire vegetation trajectories for west-side forests under difference climate change scenarios.

Designing Forest Treatments to Promote Resilient Forest Socio-Ecosystems for Tribal Communities in Northern CA

Lead Institutions: USFS, Yurok Tribe

PIs: Frank Lake & Joe Hostler

Partners: University of CA Cooperative Extension, NRCS

For this project, the PIs will work with UC Extension and NRCS to evaluate how innovative forest silvicultural treatments informed by traditional tribal knowledge, including cultural burning, are expected to promote the resilience of key forest vegetation communities to disturbances associated

with climate change. The products include compiled forest and vegetation data and modeling results for levels of vulnerability across tribal landscapes in northern California

Estimating Snowpack Extent in Complex Terrain to Adapt Wildlife and Habitat Management Practices to Climate Change

Lead Institutions: USGS, University of Idaho

PIs: David Ausband & Timothy Link

Partners: Coeur D'Alene Tribe, IDFG, USFWS

This project will be conducted in collaboration with the Coeur D'Alene Tribe, Idaho Department of Fish and Game, and U.S. Fish and Wildlife Service to map potential locations of snow refugia and estimate winter severity for the species of greatest conservation need in Idaho, including wolverine, hoary marmot, western bumble bee, mountain goat and species of economic and recreational importance.

FY19 Project Spotlight: *Evaluating Species' Adaptive Capacity (Lindsey Thurman)*

This project is focused on understanding species' adaptive capacity to climate change. This project developed a three-part framework that describes factors (exposure, sensitivity, adaptive capacity), that when considered together, can help indicate a species' vulnerability.

Background / Context:

- This project builds on previous efforts, including those of the Adaptive Capacity Working Group established in Oct 2017 (cross-disciplinary group including fed / state / nonprofit / university). This working group has organized a workshop series in last couple of years, which continues to grow.
- Peer-reviewed papers related to this work:
 - o First paper focused on tool / framework for evaluating a species
 - o Second paper focused on adaptation planning
 - A culmination of intrinsic adaptive capacity factors, in addition to how other factors interact, make up a species' *realized* adaptive capacity

FY19 NW CASC project:

- Trying to implement framework with state partners
- Developed a wheel of attributes (movement, behaviors, life histories, demographic traits, etc.)
- Applied framework to different functional groups, used as case studies
- Partners with IDFG & WDFW to identify priority species that can assessed using this framework (recovery planning or habitat management strategies)
- Also working with Adaptation Partners (USFS) with help of Jessica Halofsky, contributing to OR Coast Adaptation Partners

FY19 Project Spotlight: *An Alert System for Managing At-Risk Species (Meade Krosby)*

This project is building on work led by the Cascadia Partner Forum and Andrew Shirk (Research Scientist with Climate Impacts Group). The Cascadia Partner Forum is a network of resource managers across Washington and British Columbia, developed in recognition of the need for work across borders and boundaries to coordinate management of our fish, wildlife and ecosystems. The Cascadia Partner Forum is responding to the need for new tools to support species management

under climate change.

This project is:

- Working with Google Earth to produce a tool that includes habitat and connectivity models, etc. for priority species. This tool will serve as a blueprint for conservation, and will help identify areas we'll need to maintain or restore and barriers we should remove to help improve connectivity for species that need to shift their ranges.
 - o Can alert users of approaching risks and help with storytelling
- NW CASC has funded a first module of the tool for wolverine
 - o The wolverine modeling team has been working together to coproduce model for wolverine denning habitat
 - o This Google Earth tool will update the model automatically every single year – can keep running without funding
 - o This tool can be used for long-term management (can add other layers, for example, to see how habitat will change over time)
- With additional funding, this tool can include models for other species

NW CASC Strategy Updates and Adoption Timelines

Leads: Nicole DeCrappeo & Amy Snover

Purpose: Provide overview of NW CASC's current strategic planning efforts

We have evolved in many ways over the years. To continue evolving and increasing our impact, we are developing strategic plans, guided by our mission, for all aspects of our operations. We've developed overarching organizational goals that will inform all of our strategic plans and allow us to meet our mission. These plans do not only capture the science that we do, but also how we do it – as an organization and through working with partners.

Timelines

- NW CASC Strategic Plan & Communications strategy to SAC by April 15th
 - o April 30: SAC comments due
 - o May 15: Final draft completed
 - o June 10: Adoption by SAC
 - Since SAC is an advisory committee, we don't need a formal vote, but want to make sure that SAC members agree on docs and that we're on the right track
- Tribal Engagement Strategic
 - April 15: 1st draft complete
 - May 20: Present at ATNI meeting
 - June 3: Input from ATNI
 - June 10: Present draft to SAC
- Training & Capacity Building Strategy
 - May 1: Draft to USGS
 - May 15: USGS comments due
 - May 20: Draft to University Leadership Team (ULT)
 - June 2: ULT comments due
 - June 10: present draft to SAC

Supporting NW Tribes' Climate Resilience Efforts

Leads: Chas Jones

Purpose: Provide an update on NW CASC Tribal Liaison activities

- Chas had a recent visit to the Burns Paiute Tribal Council
- Chas is providing grant feedback on draft proposals through 2020 BIA Tribal Resilience Program. The topics include:
 - o Food sovereignty
 - o Cultural resources & planning
 - o Community engagement
 - o Vulnerability assessments (specifically on forestry resources)
- Chas is helping planning various tribal meetings
 - o National Tribal Leadership Climate Change Summit (Seattle, May 2021)
 - o Tribal Climate Camps (Anchorage, May 2021)
 - Also assisting with 2 additional Tribal Climate Camps in the NE & SW
 - o Rising Voices workshop (April 2020)
- Chas developed a new ATNI monthly newsletter (started in February 2020)
 - o Subscriptions to this newsletter have been increasing. Sign up by clicking on the link in the newsletter.

University Consortium Activities

Leads: Amy Snover, Darcy Widmayer, Meade Krosby

Purpose: Provide update on current and upcoming university consortium activities.

2020 Fellows Cohort and 2021 Applications (Amy)

NW CASC's Research Fellowship Program is an annual program to solicit and fund climate adaptation research aligned with science agenda priorities and provide training in the principles and practices of coproducing actionable science.

Current cohort of research fellows

- Conducting research aligning with water, at-risk species and habitats, forest ecosystems
- Mix of graduate students and postdocs
- Range of partners

Currently recruiting for 2020-21 cohort

- March 16th deadline for proposals
- Some Fellows come in with existing connections to NW CASC stakeholders, some do not
- Their research must be relevant to the science agenda

Spring Webinar Series (Darcy)

NW CASC is currently planning its fifth skills-building webinar series this spring. As a reminder, these skills-building webinar series are designed to build capacity for effective engagement between management and research communities. Our upcoming series will include 3 webinars (April – June) and is designed to help graduate students and postdoctoral scholars engaged in research related to climate adaptation better understand how to incorporate co-production into their work and navigate the range of career pathways available to those interested in spanning the divide between science and decision-making to address urgent environmental challenges.

Deep Dive Workshop (Meade)

Our next Deep Dive topic is on Ecosystem Transformation: Managing post-fire vegetation change in a warming climate. This workshop was set to take place in Missoula, MT in June, but workshop organizers have decided to turn this into a series of virtual webinars and working meetings given the current COVID-19 situation.

Background: The Northwest Climate Adaptation Science Center organizes an annual Deep Dive workshop focused on a specific issue related to climate adaptation in the Northwest. The goal of the Deep Dive workshop approach is to facilitate community development of an actionable science agenda that outlines knowledge gaps to be filled by research and identifies areas for linking science and practice related to the issue. This workshop brings together researchers, practitioners and students from around the region.

Northwest Climate Conference (Amy)

It is Washington's turn to host this conference in 2020. We do not have an official date to announce yet, but it is tentatively scheduled for Oct 5-7 and will be hosted by the UW Climate Impacts Group, in partnership with Tulalip Tribes. The planning team is designing activities around mentoring and networking with students and early career professionals, which we hope SAC members will be interested in. Ideas for these activities include a happy hour (similar to the mixer following the October in-person SAC meeting) and a conference session to pair students and early career researchers with resource managers.

SAC Organizations' Climate Adaptation Activities

Leads: SAC members

Purpose: Report out on SAC organizations' current and planned climate adaptation activities, followed by discussion and identification of leveraging and/or collaborative opportunities.

Jolyne Lea, USDA Natural Resources Conservation Service

New projects we are rolling out in NRCS for tribal land climate data: the Tribal Soil Climate Analysis Network (TSCAN) was initiated in 2017 to coordinate placement of climate stations on tribal lands. The stations monitor soil temperature and moisture, as well as multiple atmospheric parameters. Data is made available through two web portals: NRCS website (<https://www.wcc.nrcs.usda.gov/tribalscan/index.html>) and the Applied Climate Information System (ACIS) at the Northeast Regional Climate Center (<https://scantools.rcc-acis.org/>). The ACIS platform was developed to improve data utility from both SCAN and TSCAN networks by linking data to tools useful for agricultural production. Tools such as growing degree days, livestock heat index and water deficit provide producers with improved decision-support information.

Mike Hudson, U.S. Fish and Wildlife Service

USFWS's upcoming annual science of the service meeting (April 21-22 in Portland) will provide an opportunity to share science that's being produced and used by USFWS. Mike will be moderating a panel discussion focused on managed relocation, focused on biology, policy and ethical considerations of managed relocations. This meeting aims to improve understanding of existing and needed science around these topics. Hoping for follow-up discussions around these topics and potential opportunities for NW CASC partnerships (Mike will report out on this in June).