



2013 ANNUAL REPORT



The North Pacific Landscape Conservation Cooperative (NPLCC) promotes development, coordination, and dissemination of science to inform landscape-level conservation and sustainable resource management in the face of a changing climate and related stressors.

MESSAGE FROM THE NPLCC CO-CHAIRS

Rory Annett, Canadian Co-Chair & Lyman Thorsteinson, US Co-Chair

“The only way to advance conservation and sustainable resource management in the face of changing climate and reduced fiscal resources is by working together. Natural and cultural resource managers throughout the Pacific temperate rainforest manage common resources, face similar larger-scale environmental challenges, and are operating with limited capacity and fiscal resources.

During this past year, the North Pacific Landscape Conservation Cooperative has become a dynamic place to share resource management goals, data, information, tools, science needs, capacity, skills, expertise, and financial resources. By coordinating our efforts across regional and jurisdictional barriers, Tribes/First Nations, federal/state/provincial/local governments, NGOs, and others are better able to respond to large-scale environmental stressors, leverage resources, and integrate transboundary efforts throughout the region. The LCC model is exciting because, by working together, conservation issues can be addressed at appropriate scales and not in traditional, piecemeal fashion.

The area encompassed by the NPLCC supports an amazing number of native plant and animal species, a growing human population, and a rich diversity of natural resource-dependent traditions, cultures, and businesses. Resources within this 200,000-square-mile area are already being affected by climate change and related large-scale environmental disturbances. In close partnership with natural and cultural resource managers and scientists, the NPLCC is now delivering tools, information, and science to increase our collective capacity to incorporate climate change information into our resource decisions ensuring this region continues to support its emblematic species, ecosystems, and the cultures and livelihoods that depend on them. With leadership from the member organizations, the NPLCC is building upon the institutional knowledge these cooperators provide to address natural and cultural challenges to resource management in the 21st century.”



Rory Annett



Lyman Thorsteinson

INTRODUCTION

This report summarizes our 2013 activities and accomplishments consistent with the North Pacific Landscape Conservation Cooperative's (NPLCC) mission and seven goals. By building capacity, providing decision support, connecting partners, and sharing information, we work together to create opportunities to conserve and sustainably manage our natural and cultural resources.

Highlights of 2013:

- ✓ *Adopted a four-year implementation plan for the NPLCC's Science/Traditional Ecological Knowledge Strategy*
- ✓ *Adopted a Communications and Outreach Strategy and launched several communication tools*
- ✓ *Funded a diverse array of innovative science and information projects*
- ✓ *Improved how we collaborate with other partners in the region*



Mission: The North Pacific Landscape Conservation Cooperative (NPLCC) promotes development, coordination, and dissemination of science to inform landscape-level conservation and sustainable resource management in the face of a changing climate and related stressors.



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ABOUT THE NPLCC

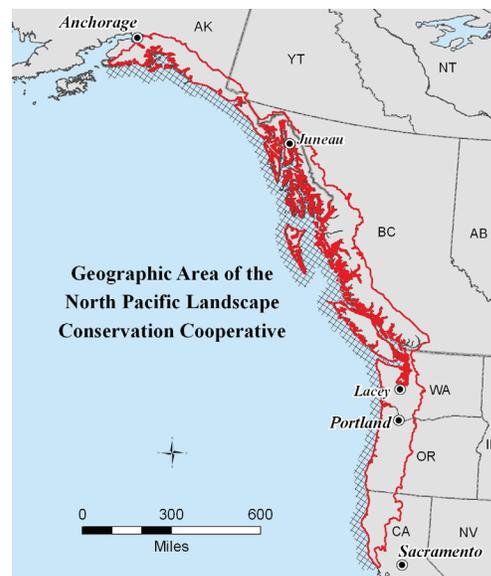
The NPLCC is a voluntary, self-directed partnership focused on identifying solutions to address broad-scale resource management issues, such as climate change. We focus on building collaboration so resource managers have science and information to support their decision-making.

Goals:

- 1. Maximize the ability of partners to make informed decisions** with respect to conservation and sustainable resource management of priority natural and cultural resources subject to climate change and related large-scale stressors in the NPLCC region. (Conservation and restoration)
- 2. Identify and address trans-boundary landscape-level natural and cultural resource information needs** that the LCC is uniquely qualified to address -- including the identification of opportunities for (and barriers to) landscape-level conservation/sustainable resource management. (Unique role of LCC)
- 3. Identify priorities for applied science and other information for conservation/sustainable resource management.** Coordinate efforts with the relevant Climate Science Centers and other research entities to help inform research priorities. (Information priorities)
- 4. Promote identification, use, and sharing of science, traditional knowledge** and other relevant information to support conservation/sustainable resource management, and adaptive management decisions. (Use of information)
- 5. Maximize the availability and accessibility of data and information** about large-scale stressors and their impacts on natural and cultural resources, and about conservation/sustainable resource management approaches and effectiveness. (Availability of information)
- 6. Promote coordination and efficiency of efforts among resource managers and science entities** that are addressing science, traditional knowledge and other relevant information to achieve landscape level conservation/sustainable resource management. (Coordination)
- 7. Promote awareness and understanding of the NPLCC and its products** for landscape-level conservation and the effects of climate change on ecosystems, resources, cultures, and economies. (Outreach)

Guiding Principles:

1. Consider and respect each partner's unique mandates, jurisdiction, rights, traditions and interests
2. Be transparent in operations and ensure equal access, open communication, and transparent decision-making
3. Members of the Steering Committee and any subcommittees commit to participate actively and work towards advancing the goals of the NPLCC
4. Work with neighboring LCCs, Climate Science Centers, and the LCC network to coordinate efforts where appropriate



COORDINATING & BUILDING PARTNERSHIPS

The NPLCC connects organizations, resource managers, and scientists together to advance landscape conservation in the region. Whether it is bringing together the NPLCC's Steering Committee, attending conferences, or hosting topical meetings with its partners, the NPLCC facilitates the building of new connections.

Steering Committee

The NPLCC is governed by a 27-seat Steering Committee representing federal agencies, states, and Tribes/First Nations. In 2013, the Steering Committee met four times, with one in-person meeting in Victoria, Canada. The meetings focused on:

- Implementing and improving three strategic plans regarding: Science/Traditional Ecological Knowledge, Communications and Outreach, and Partnership Engagement
- Approving the Science/Traditional Ecological Knowledge Implementation Plan and projects for funding
- Learning about and driving implementation and use of NPLCC-funded projects and their products
- Hearing from partners about activities and programs related to the work of the NPLCC

View Steering Committee documents and meeting summaries: www.northpacificlcc.org/NPLCCbusiness

Subcommittees

Through its standing subcommittees, the NPLCC engages a wider array of partners. In 2013, the following subcommittees met regularly:

The Science/Traditional Ecological Knowledge (S/TEK) Subcommittee identified and developed science and Traditional Ecological Knowledge priorities and projects the NPLCC should support.

The Communications & Outreach Subcommittee developed and implemented communication strategies

Below is a list of organizations actively engaged in the operations or structure of the NPLCC:

- Alaska Climate Science Center
- Alaska Coastal Rainforest Center
- BC Ministry of Aboriginal Relations and Reconciliation
- Bureau of Indian Affairs
- Bureau of Land Management
- California Coastal Conservatory
- Canadian Wildlife Service
- Central Council Tlingit and Haida Indian Tribes of Alaska
- Climate Impacts Resource Consortium
- Columbia River Intertribal Fisheries Commission
- Douglas Indian Association
- Ducks Unlimited
- EcoAdapt
- Environmental Protection Agency
- Geos Institute
- Hoohah Tribe
- Institute for Tribal Environmental Professionals
- Klamath Bird Observatory
- National Oceanic and Atmospheric Administration
- National Park Service
- National Wildlife Federation
- Native Village of Eklutna
- Native Village of Old Harbor
- Northwest Climate Science Center
- Northwest Indian Fisheries Commission
- Pacific Coast Joint Venture
- PNW Tribal Climate Change Network
- Province of British Columbia
- Sitka Tribe
- Southwest Climate Science Center
- State of Alaska
- State of California
- State of Oregon
- State of Washington
- Tulalip Tribe
- US Fish and Wildlife Service
- US Forest Service
- US Geological Survey
- USDA National Resources Conservation Service
- Yurok Tribe

to share science and information and engage the broader NPLCC community.

The Partnership Engagement Subcommittee refined its strategy in 2013 to reach out to interested parties throughout the range of the NPLCC. This recognized the need to reach out beyond those entities that currently participate on the committees of the NPLCC, and determine the best ways to engage additional natural and cultural resources managers.

View subcommittee documents and meeting summaries: www.northpacificlcc.org/NPLCCbusiness

Engaging Tribes & First Nations

In 2013, the NPLCC continued its commitment to working with Tribes and First Nations in the region. This year, the NPLCC:

- Welcomed a new Tribal representative to the Steering Committee
- Supported, in concert with USGS Climate Science Centers, four projects exploring how climate change may impact subsistence resources important to Tribes and First Nations in the region
- Tracked implementation of seven ongoing TEK projects funded in 2012 to identify how and where TEK can better inform the work of the NPLCC
- Established close working relationships with two tribal climate change networks - the Pacific Northwest Tribal Climate Change Network and the Institute for Tribal Environmental Professionals
- Maintained close working relationships with tribal coalitions - Northwest Indian Fisheries Commission, Columbia River Intertribal Fisheries Commission, and Central Council of the Tlingit and Haida Indian Tribes of Alaska



Leveraging partnerships:

The NPLCC works in close partnership with some of the region's indigenous peoples, federal agencies, the Northwest and Alaska Climate Science Centers, and non-governmental organizations to explore how Traditional Ecological Knowledge can help us better understand how our environment is changing, plan/adapt for climate-driven change, and focus attention on cultural and natural resources important to area Tribes and First Nations. Together, this growing coalition has funded seven TEK pilot projects, an additional four projects on tribal subsistence resources, and is jointly funding climate adaptation classes focused on issues of tribal interest.

DEVELOPING SCIENCE AND RESOURCE MANAGEMENT SUPPORT

Implementation of the NPLCC’s four-year Strategy for Science and Traditional Ecological Knowledge (*Science/TEK Strategy*) began in 2013. The *Science/TEK Strategy* provides overall direction and guidance for activities related to landscape-level conservation and sustainable resource management for the NPLCC. The five Priority Topics and four Guiding Principles identified in the *Science/TEK Strategy* are central for planning the applied science and TEK activities to be implemented in 2013 to 2016.

Science/TEK Strategy’s Implementation Plan

The Science/TEK Subcommittee developed a four-year implementation plan in 2013 for the NPLCC Science/TEK Strategy. The *Implementation Plan* identified a set of priority activities to be undertaken by the NPLCC and its partners to support and implement the *Science/TEK Strategy*. NPLCC partners recognized that achieving the mission of the NPLCC will require the strengths and resources of many organizations working together. Therefore, the *Implementation Plan* identified activities appropriate for direct support from the NPLCC and activities that may be more appropriate for support by NPLCC partners.

Consistent with the *Science/TEK Strategy*, a total of eight to ten Priority Activities for 2013-2016 were identified for each of the five Priority Topics for implementation by the NPLCC and/or partners. This list of activities will be revisited annually to evaluate if changes should be made. The following five Focused Activities were developed for implementation in 2013 and 2014:

Focused Activity 1: Augment, integrate and share existing Science/TEK data and information through continued development and expansion of the NPLCC data discovery and management platform.

Focused Activity 2: Align and coordinate the delivery of Science and TEK with decision-maker needs.

Focused Activity 3: Identify Science/TEK information necessary to support landscape-scale planning in the face of climate change that involves multiple entities and jurisdictions.

Focused Activity 4: Incorporate existing climate information into “line management activities”



Focused Activity 5: Provide support for partner-initiated joint projects – “Climate Change Adaptation for Subsistence/ Cultural Resources” was adopted as a focused activity in 2013 in partnership with the Alaska and Northwest Climate Science Centers

View the *Science/TEK Implementation Plan*:
www.northpacificlcc.org/NPLCCbusiness

Science/TEK Strategy:

Guiding Principles

In annual implementation planning, and in the activities it supports, the NPLCC will:

- Focus on helping managers understand the availability and effectiveness of adaptation and mitigation response actions
- Focus on facilitating coordination, collaboration, and capacity building, and on developing or assisting with tools to assist decision-makers
- Identify and promote opportunities to use TEK to inform partner and stakeholder decisions
- Promote and facilitate consideration of the connections and interactions between ecosystems

Priority Topics

- A. Effects of hydrologic regime shifts on rivers, streams, and riparian corridors
- B. Effects of change in air temperature and precipitation on Forests
- C. Effects of changes in sea levels and storms on marine shorelines, the nearshore and estuaries
- D. Effects of the changes in the hydrologic regime on anadromous fish
- E. Invasive species, diseases, pests and their effects on biological communities



2013 PROJECTS

Fourteen management-relevant projects were funded in 2013. These projects are closely aligned with the NPLCC's *Science/TEK Strategy and Implementation Plan* and are distributed throughout the geographic range of the NPLCC. They represent a rich diversity of highly-qualified sponsors and organizations. Several of these projects were selected as a result of two requests for proposals; others were initiated directly with project sponsors in accordance with the Implementation Plan. Four of the projects were jointly funded and selected in close partnership with the Northwest and Alaska Climate Science Centers (NW and AK CSCs). For more details on each project head to our website at: <http://northpacificlcc.org/Resources/Projects>.

***Project Leads are designated by an asterisk**

Project Title	Project Lead & Partners	Geography
Focused Activity 1: Augment, integrate and share existing data and information...		
Create On-line Conservation Planning Atlas – a “Gateway” to Discover, Access, and Manage Landscape Conservation Data	Conservation Biology Institute*	NPLCC Wide
Create Interactive Map to Display Climate Change Impacts and Adaptation Practices for Specific Regions within the NPLCC	National Wildlife Federation*	NPLCC Wide
Develop a Comprehensive Interagency Stream Temperature Database and High Resolution Climate Scenarios Rivers, Lakes, & Streams	US Forest Service*; Quinault Indian Nation; Confederated Tribes Warm Springs; Quileute Tribe; Washington Department of Ecology; Oregon Department of Environmental Quality; Oregon Department of Fish and Wildlife; Hood River Watershed Group; PacifiCorp; Pierce, Skagit, Snohomish, and King Counties, WA; Columbia Riverkeepers; Bureau of Land Management; US Forest Service; AREMP monitoring program; US Geological Survey; US Fish and Wildlife Service; The Wilderness Society; Trout Unlimited; National Oceanic and Atmospheric Administration; US Bureau of Reclamation; National Park Service; Environmental Protection Agency	Washington; Oregon; California
Focused Activity 2: Align and coordinate the delivery of science with decision-maker needs...		
Climate Change Vulnerability of Pacific Lamprey	US Fish and Wildlife Service*; Cow Creek Band of Umpqua Tribe of Indians; Yakama Indian Nation; US Geological Survey	Washington; Oregon; California
NPLCC Guide to Landscape-Level Planning Tools	NatureServe*	NPLCC Wide
Using Beaver Reintroduction for Climate Change and Conservation Benefits	US Fish and Wildlife Service*; National Oceanic and Atmospheric Administration; River Restoration Northwest; Portland State University	NPLCC Wide
Focused Activity 3: Identify information necessary to support large-scale planning and management efforts that include multiple entities and jurisdictions...		
Support Collaborative Landscape Design Effort in North Cascades to Integrate Climate Change Projections into Wildlife Connectivity Management	Conservation Northwest and University of Washington	NPLCC Wide
Assessment of Status of Science and Information on Hydrologic Regime Shifts; Identify Priority Management Needs	US Geological Survey	Oregon; Washington

Project Title	Project Lead & Partners	Geography
Focused Activity 4: Incorporate climate information into line management activities...		
Apply Sea Level Rise Adaptation Tools to Land Management Decisions in the San Juan Archipelago and the Salish Sea	Friends of San Juans*; Coastal Geologic Services, Inc; Resource Media; US Geological Survey	British Columbia; Washington
Disseminate Sea Level rise and Storm Surge Information to Coastal Managers; Facilitate Long-term planning	US Geological Survey*; Oregon State University; US Fish and Wildlife Service; National Oceanic and Atmospheric Administration; California LCC	Washington; Oregon; California
Create Guide to Landscape-Level Planning Tools to Facilitate Efficiency and Effectiveness of Current and Future Planning Efforts	NatureServe*	NPLCC Wide
Prioritize Restoration & Enhancement of Aquatic Vertebrates Passage at Stream-road Crossings in the Face of Changing Hydrologic Regimes	US Geological Survey*; Siuslaw National Forest	Oregon
Focused Activity 5: Climate change adaptation for subsistence and cultural resources...		
Projects in this Focused Activity were jointly funded by the Alaska and Northwest Climate Science Centers.		
Identify Climate Vulnerabilities and Prioritize Adaptation Strategies for Eulachon Populations in the Chilkoot and Chilkat Rivers	Chikoot Indian Association*; Takshanuk Watershed Council; Alaska Native Tribal Health Consortium	Alaska
Ocean and Freshwater Assessment of Climate Change Impacts on Pacific Lamprey and Pacific Eulachon	Columbia River Inter-Tribal Fish Commission*; NOAA; University of British Columbia	Washington; Oregon
Klamath Basin Traditional Ecological Knowledge for Climate Change Adaptation Planning	Quartz Valley Indian Reservation*; Hoopa Valley Tribe; Karuk Tribe; Klamath Tribes of Oregon; Resighini Rancheria; Yurok Tribe; Klamath Basin Tribal Youth Program; US Forest Service; US Fish and Wildlife Service; US Bureau of Indian Affairs; National Aeronautics and Space Program; Humboldt State University; Southern Oregon University; Oregon Institute of Technology	Oregon; California
Assess Mortality Causes and Develop Strategies to Sustain Berry-producing Plants Important to Tribal Subsistence	Chugachmiut Tribal Consortium*; US Forest Service; Colorado State University	Alaska



PROMOTING LANDSCAPE SCALE CONSERVATION AND SUSTAINABLE RESOURCE MANAGEMENT

The NPLCC is dedicated to sharing information and encouraging its partners to communicate with each other. Through continued communication, partners gain access to new science, find opportunities to leverage resources, and diminish duplication.

Communications & Outreach Strategy

The NPLCC's Communications and Outreach Subcommittee spent 2013 developing and implementing its Communications and Outreach Strategy which was adopted in May 2013. The strategy identifies goals and communications objectives, target audiences, communications tools, and a path forward for implementation. The strategy highlights the following communications objectives:

- Provide information to enable agency leadership and decision-makers to be advocates of the NPLCC.
- Facilitate communication among Steering Committee members and Subcommittee members that helps build the NPLCC's effectiveness.
- Increase efficiencies and create opportunities for sharing staff and leveraging resources.
- Build identity for the NPLCC. Demonstrate how NPLCC efficiently and effectively supports our partners' mission of delivering science and information to partners enabling them to meet their organization's objectives.
- Share progress and successes of science and management plans, strategies and tools related to the NPLCC.
- Increase awareness and understanding of the NPLCC and its opportunities and advantages among NPLCC partners and potential supporters. Tell them about project developments so that they feel involved, have an opportunity to give feedback, and are acknowledged for their contributions.
- Promote awareness of landscape level climate change (and related stressors) impacts on natural and cultural resources.
- Deliver products and tools developed by the NPLCC (or its partners) to customers.
- Generate interest and support for the NPLCC and its products among the general public and external organizations.
- Support outreach efforts of partners to promote the programs and progress of the NPLCC.

A key factor in meeting these objectives was the recent hiring of a Communications and Outreach Specialist for the NPLCC.

View the Communications & Outreach Strategy: www.northpacificlcc.org/NPLCCbusiness



Social media: The NPLCC employs a variety of social media tools to increase the public awareness of the NPLCC and the work we and our partners fund.

-  North Pacific LCC
-  @NPLCC
-  North Pacific LCC

NPLCC Website

The NPLCC website (www.northpacificlcc.org) was substantially improved in 2013 and has logged more than 27,500 views. The site features news and events happening in the region, information on supported science projects, webinar links, relevant Tribes & First Nations information, meeting information, and organizational information about the NPLCC.

View the website: www.northpacificlcc.org

Email Distribution List

In 2013, the NPLCC ramped up the use of its 2,600-member mailing list as a tool to keep interested partners connected to the happenings of the LCC and its partners. Periodically, we send out information about upcoming events, latest science releases, and important announcements. In 2013 we launched two well-received e-news mailings:

Climate Science Digest - a monthly publication to increase access to climate change information important to natural and cultural resource managers throughout the North Pacific LCC region. Our aim with this digest is to help North Pacific LCC partners and others stay connected to management-relevant climate change science integral to their work.

North Pacific Tidings - a monthly newsletter that we produce to share information about what the NPLCC is up to. This includes highlighting key stories related to the work we support as well as the fantastic work of our partners.

Partner Engagement and Assessment of Related Efforts

The NPLCC has a strong start and solid foundation for assessing potential partners and their large scale planning efforts' conservation priorities and associated goals and objectives within the LCC geography. In 2013, an intern was brought on to survey and characterize the entities throughout the range of the NPLCC whose missions aligned with the mission and objectives of the NPLCC. This effort resulted in the creation of an interactive database, which is the basis for inventorying partners and assessing large scale planning efforts. The NPLCC will complete this assessment in the coming year and implement a plan to best engage these partners and assist, where invited, in helping to advance their cultural and natural resource management priorities.

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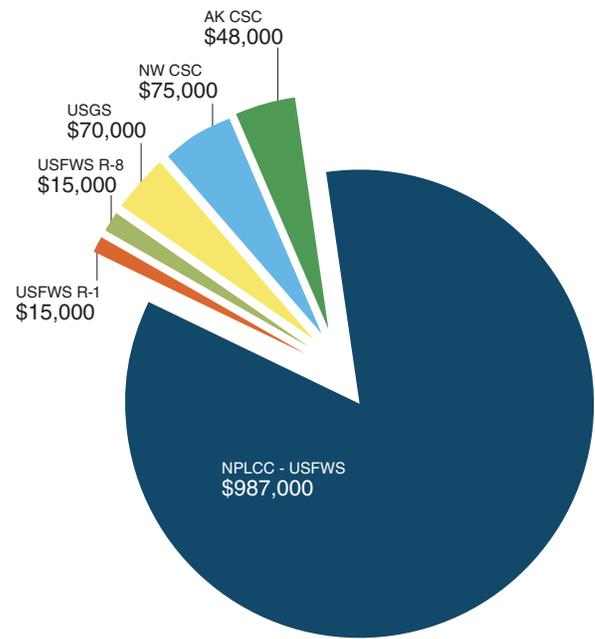
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Fiscal Resources

The NPLCC accomplished much in 2013 due to both direct support and a very significant contribution of “in-kind” support for its partner organizations. The bulk of the direct support was provided by the US Fish and Wildlife Service, with a substantial (and growing) amount of direct support coming from partner organizations. “In-kind support” in terms of leadership, participation, science expertise, and logistics assistance was substantial, and critical to the success of the NPLCC. However “in-kind” support was not quantified for this report.



Conclusion

Henry Ford once said that “Coming together is a beginning, staying together is progress, and working together is success.” It is clear that, thanks to the contributions from our many partners, 2013 was a year of transitioning from “progress” to “success”. The partners engaged in the NPLCC and staff look forward to making 2014 a year of demonstrating our success and using the science and information the NPLCC and our partners produce to better inform landscape-level conservation and sustainable resource management in the face of a changing climate and related stressors.

