



NATIONAL *fish, wildlife & plants*  
CLIMATE ADAPTATION STRATEGY

Project Title: North Cascadia Adaptation Partnership: Preparing for Climate Change through Science-Management Collaboration

Headline Title (2-5 words): North Cascadia Adaptation Partnership (NCAP)

Brief Summary (Abstract):

Project Location: Washington

Partners: National Park Service, U.S. Forest Service, University of Washington Climate Impacts Group,

Background:

The North Cascadia Adaptation Partnership (NCAP) is a Forest Service – National Park Service collaboration on climate change adaptation. NCAP addresses adaptation at a large scale – the region is 6 million acres and includes Mt. Baker-Snoqualmie National Forest, Okanogan-Wenatchee National Forest, North Cascades National Park Complex, and Mount Rainier National Park. NCAP is the third Forest Service – National Park Service partnership on climate change adaptation in the country. Two previous case studies – Olympic NF/Olympic NP (Washington) and Inyo NF/Devils Postpile NM (California) – serve as successful examples of the benefits of this type of cross-boundary partnership. NCAP takes on the challenge of applying this approach to a larger landscape that is more geographically, ecologically, and institutionally complex than its predecessors. NCAP is also a science-management partnership. The USFS Pacific Northwest Research Station is leading the effort and the Climate Impacts Group at the University of Washington serves as the primary climate science provider for the project.

Project Goals: The goals of the project were to:

1. Synthesize published information and data on climate change science to develop an educational program for resource managers and stakeholders.
2. Assess the vulnerability of natural and cultural resources (e.g. water, vegetation, wildlife, fisheries, recreation, roads, high-elevation ecosystems) to a warmer climate.
3. Develop science-based adaptation strategies and tactics that will increase ecosystem resilience to climate change while maintaining other management objectives.
4. Ensure that science-based adaptation options are effectively incorporated into relevant planning document

Strategy Goals Implemented:

Goal 2, Strategy **2.1.3:** Identify species and habitats particularly vulnerable to transition under climate change (e.g., wetlands, cool-water to warm-water fisheries) and develop management strategies and approaches for adaptation; Strategy **2.2.1:** Use vulnerability and risk assessments to design and implement management actions at species to ecosystem scales.

**Goal 3, Strategy 3.1:** Increase the climate change awareness and capacity of natural resource managers and other decision makers and enhance their professional abilities to design,



implement, and evaluate fish, wildlife, and plant adaptation programs. Specifically: **3.1.1:** Build on existing needs assessments to identify gaps in climate change knowledge and technical capacity among natural resource professionals.; **Strategy 3.2:** Facilitate a coordinated response to climate change at landscape, regional, national, and international scales across state, federal, and tribal natural resource agencies and private conservation organizations.

**Goal 5, Strategy 5.1.2:** Bring managers and scientists together at the appropriate scales to prioritize research needs that address resource management objectives considering a changing climate.

**Goal 6, Strategy 6.1.4:** Incorporate information about potential climate change impacts to ecosystem services in education and outreach activities.; **Strategy 6.2.4:** Make research and monitoring information regarding climate impacts to species and natural systems accessible and easily understood to the public and other partners (e.g., commercial fisheries, etc.).

**Goal 7, Strategy 7.3.8:** Apply integrated management practices, share innovative control methodologies, and take corrective actions when necessary to manage fish, wildlife, and plant diseases and invasives.

Climate Impacts Addressed: Impacts on fish and fish habitats, vegetation, wildlife, disturbance regimes, and access to national parks and forests (i.e. transportation)

Status of Project Implementation (Timeline, Milestones, Next Steps): The project was initiated in fall of 2010. The first stage of our project was education of USFS and NPS staff and partners. Four workshops were held between February 2011 and April 2011. We then held four workshops to conduct Vulnerability Assessments and Develop Adaptation Strategies: Fish and Fish Habitats (July 2011), Vegetation (November 2011), Access (December 2011), and Wildlife (January 2012). A USFS General Technical report is now in publication. A follow-up workshop on Culverts and Climate Change was conducted at North Cascades National Park in April 2013 and other workshops are planned.

Project Outcomes: Increased awareness by park and forest staff to projected impacts of climate change, awareness of where to obtain information, vulnerability assessment of key resources and ecological processes, development of adaptation strategies, and coordination across agency boundaries.

Funding Sources: USFS, NPS

Photos/Attachments: photos on website [www.northcascadia.org](http://www.northcascadia.org)

Photo/Figure Credits (do we have permission to print): all photos are property of NPS or USFS

Suggested Photo Caption: