

The North Cascadia Adaptation Partnership:

Preparing for Climate Change through Science-Management Collaboration

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NCAP Partners

Core Team



- US Forest Service



- National Park Service



- University of Washington
Climate Impacts Group

Vulnerability Assessment & Adaptation



United States
Department of
Agriculture

Forest Service
Pacific Northwest
Research Station

General Technical
Report
PNW-GTR-844

August 2011



Adapting to Climate Change at Olympic National Forest and Olympic National Park



North Cascadia Adaptation Partnership (NCAP)



- Mt. Rainier National Park
- North Cascades Nat'l Park
- Mt. Baker-Snoqualmie NF
- Okanogan-Wenatchee NF



North Cascades Nat'l Park

USFS GTR – Sept 19, 2014

adaptationpartners.org

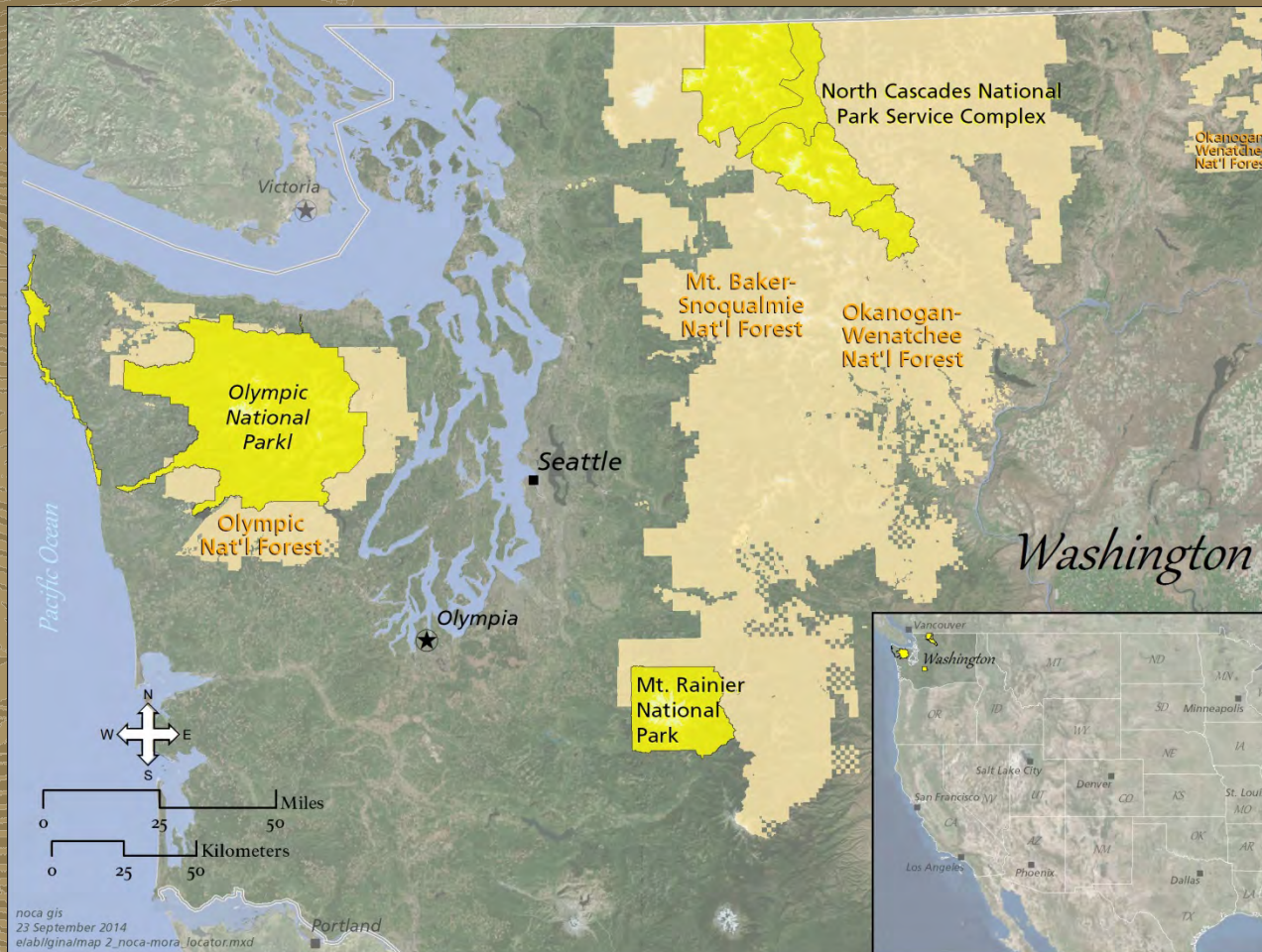
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NCAP Objectives & Focus Areas

1. Educate our staff to climate change
2. Conduct Vulnerability Assessments
3. Develop science-based adaptation options
4. Incorporate adaptation adaptive strategies and tactics into park & forest management



Olympic Case Study & NCAP



Amphibian Vulnerability Analysis

- **Exposure:** Reduced hydroperiods
- **Sensitivity:** Embryonic and larval survival due to changes in breeding habitat
- **Strategy:** Increase population resilience and resistance.
 - Reduce nonclimatic threats.
 - Remove exotic fish.
 - Facilitate recovery from past management with habitat manipulation.
 - Relocate species as necessary.



Sensitivity

www.climatechangesensitivity.org



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Climate Change Sensitivity Database

Home Page

View Edit Node export

Welcome to the Climate Change Sensitivity Database.

Climate changes poses a daunting challenge to natural resource managers and in response the University of Washington has partnered with key collaborators to conduct a climate change sensitivity assessment. This assessment is designed to evaluate the sensitivity of the species and ecological systems of the Pacific Northwest to climate change.

This digital database summarizes the inherent climate-change sensitivities for species and habitats of concern throughout the Pacific Northwest and will provide resource managers and decision makers with some of the most basic and most important information about how species and systems will likely respond to climate change.

Please come take a look!

Recent Updates

[Pinus albicaulis](#)

Updated: 1 week 55 min ago

[Western US](#)

Updated: 1 week 5 days ago

[Pandion haliaetus](#)

Updated: 1 week 5 days ago

[Circus cyaneus](#)

Updated: 1 week 5 days ago

[Accipiter cooperii](#)

Updated: 1 week 6 days ago

Climate Change and Access



Cascade River Road, August 11, 2013

Access Vulnerability Analysis

- **Exposure:** Increases in extreme flows
 - Changes in the timing of flows
 - Elevated soil moisture
- **Sensitivity:** Road infrastructure: culverts, embankment stability
- **Strategy:** Increase resilience and resistance of road travelways



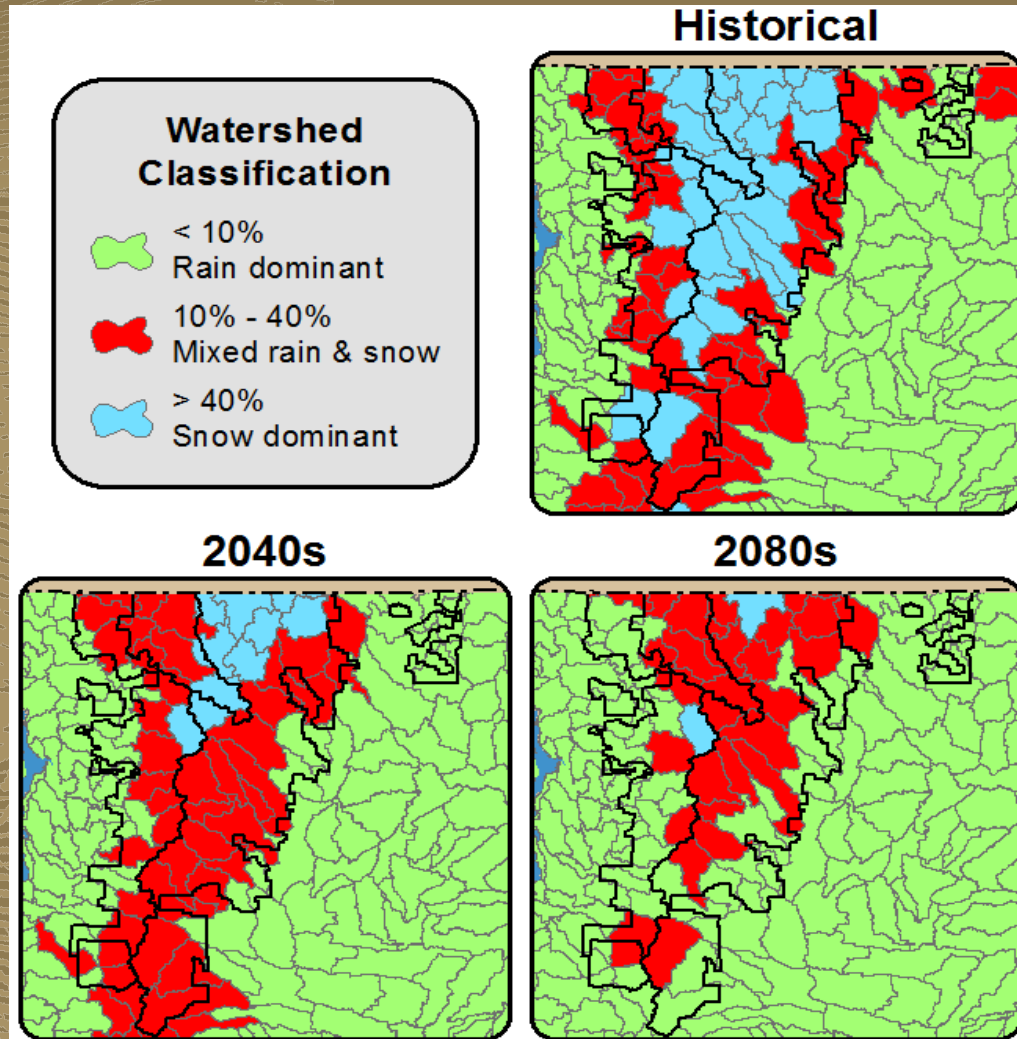
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What Have We Done Since NCAP?

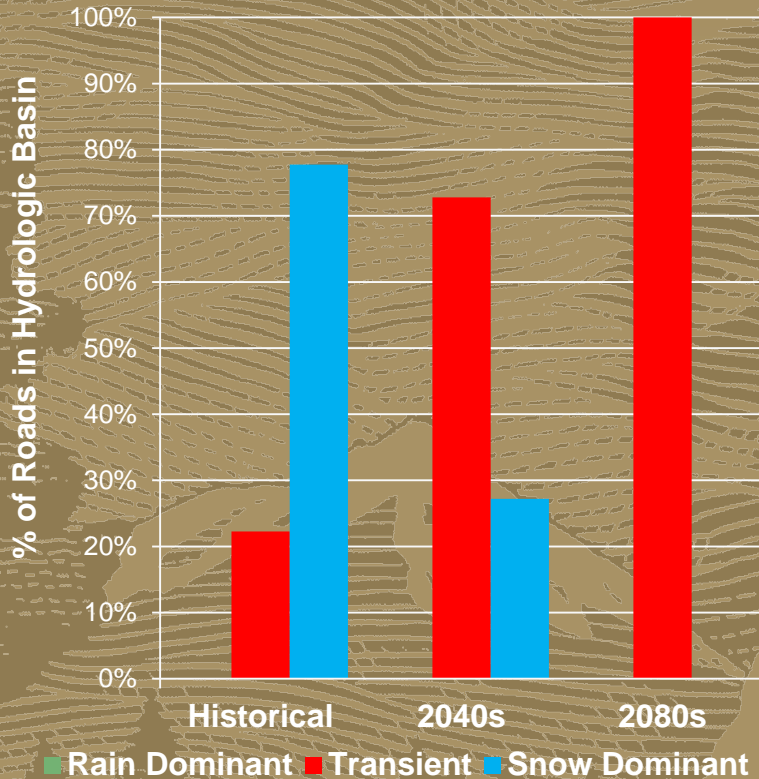
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Taking a Closer Look at Access

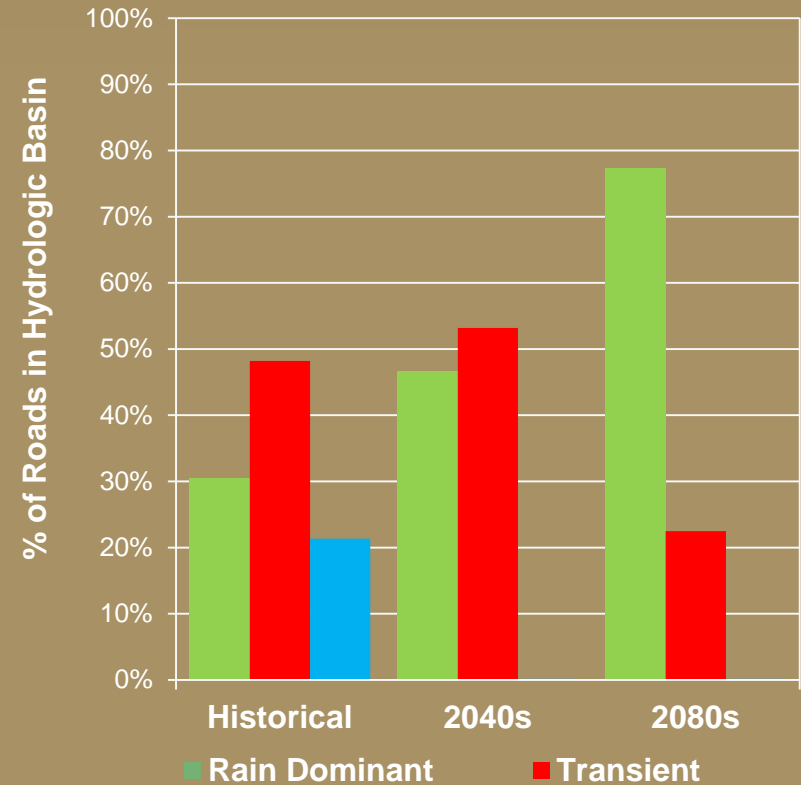


Distribution of Roads by Basin Type for 3 Time Periods

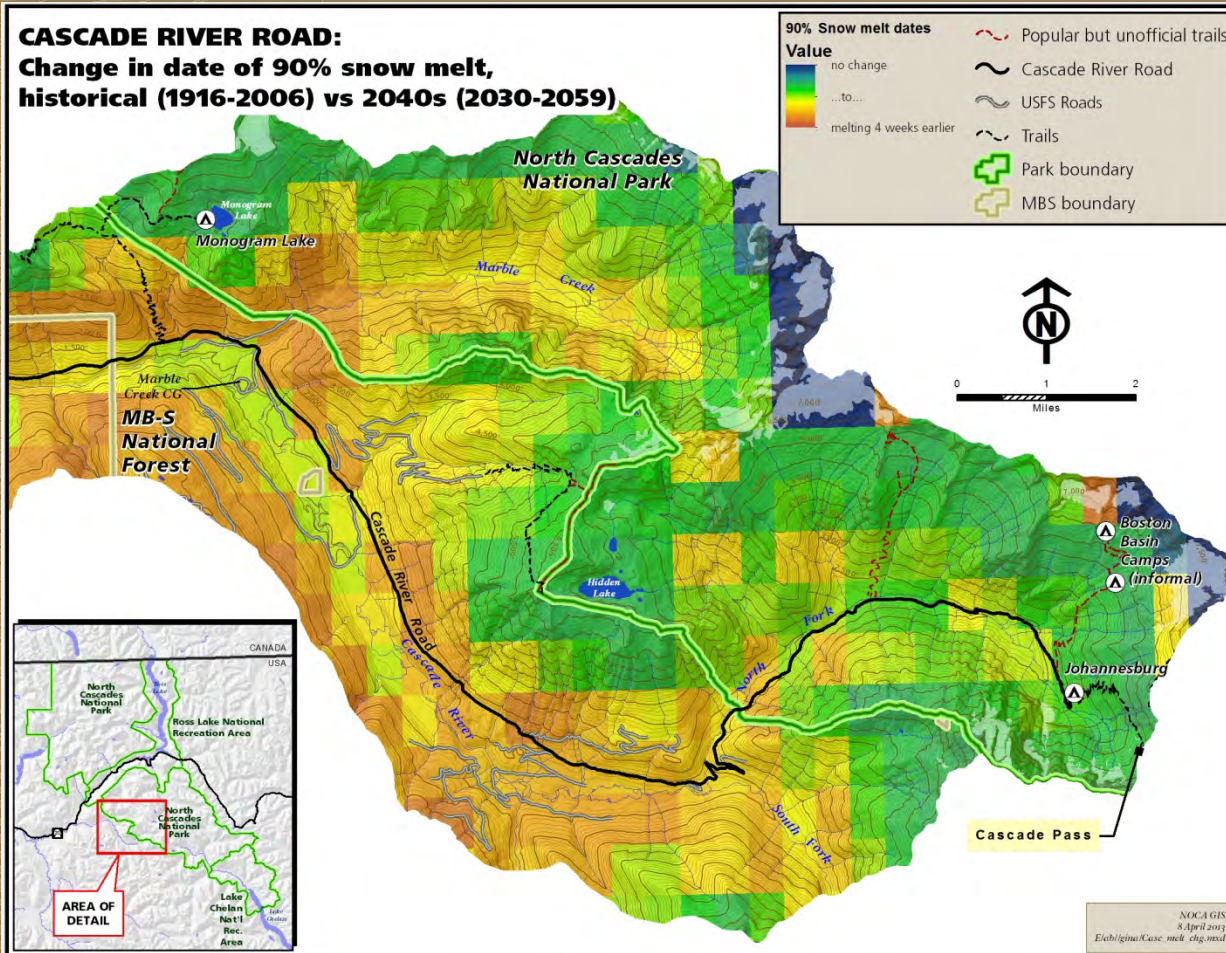
North Cascades NP



Mount Baker-Snoqualmie NF



Access Adaptation Workshop



Restoring Resilience of Wetland Ecosystems



Fish Removal In North Cascades National Park Complex

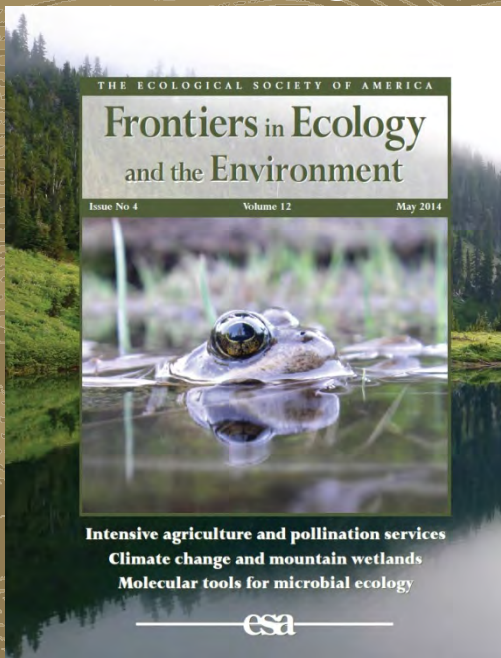
Restoring Resilience of Wetland Ecosystems



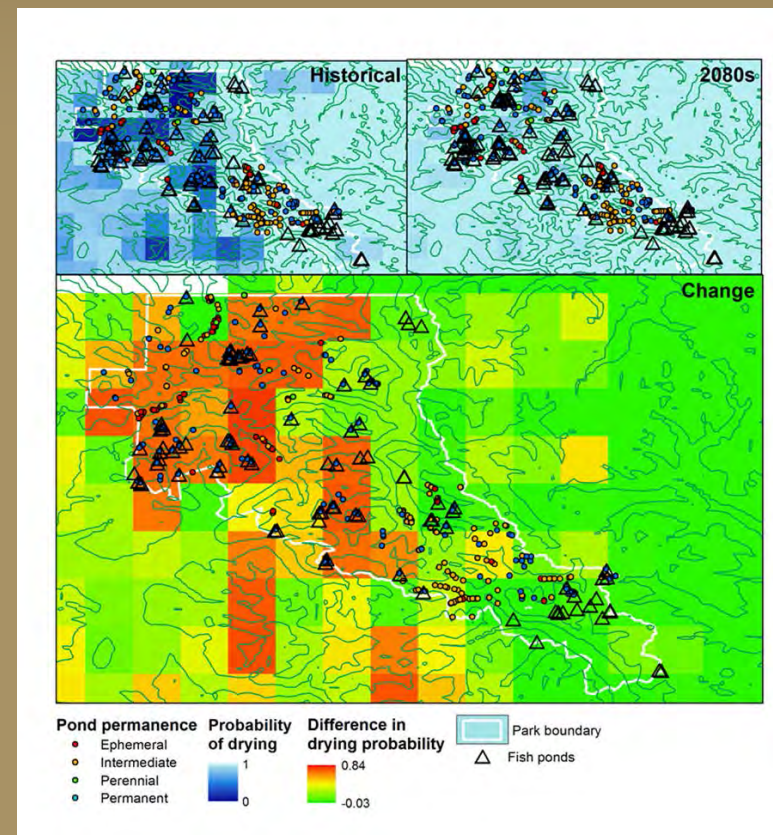
Exotic Plant Removal – Reed Canary Grass

Expanding Science Base

Continue collaborations with outside researchers and other agencies



Maureen Ryan, UW & SFU
Se-Yeun Lee, Meghan Halabisky, UW
Mike Adams, USGS
Wendy Palen, Amanda Kissel, SFU



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