



Western Washington University
Western CEDAR

Salish Sea Ecosystem Conference

2014 Salish Sea Ecosystem Conference
(Seattle, Wash.)

May 1st, 10:30 AM - 12:00 PM

Making Washington's Shoreline Master Programs Climate Smart

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Shoreline Master Program

Jennie Hoffman
Adaptation/Insight

What's the question?

How do I reduce my community's vulnerability to climate change/natural hazards?

VS

How do I make all my usual planning (or other) decisions in a climate-informed way?

WA Shoreline Master Program



Shoreline Management Act
RCW 90.58

Ratified by voters in 1972



“The department shall periodically review and adopt guidelines ...for development of master programs...”



Shoreline Master Program Guidelines 2003

**Endorsed by trade,
environmental and
government groups
statewide**



Key Elements of SMP update process:

- Jurisdiction, public participation plan
- **Inventory, analysis, and characterization**
- Environmental designations, cumulative impacts analysis
- Restoration plan
- Local approval
- State approval

Inventory

- “Existing data, information, and descriptions...that pertain to existing and emerging problems and issues in a jurisdiction.”

Inventory

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 - *Refine existing information, e.g.*

Inventory

- “Existing data, information, and descriptions...that pertain to existing and emerging problems and issues in a jurisdiction.”
 - *Refine existing information, e.g.*
 - *Land use, transportation, and utility facilities*
 - *Wildlife habitats and critical areas*

Inventory

- “Existing data, information, and descriptions...that pertain to existing and emerging problems and issues in a jurisdiction.”
 - *Refine existing information*
 - *Bring in new information, e.g.*

Pacific Northwest Climate Change Vulnerability Assessment



Home Projects Data Publications Who We Are

Search this website...

About the Assessment



Climate Adaptation Case Studies

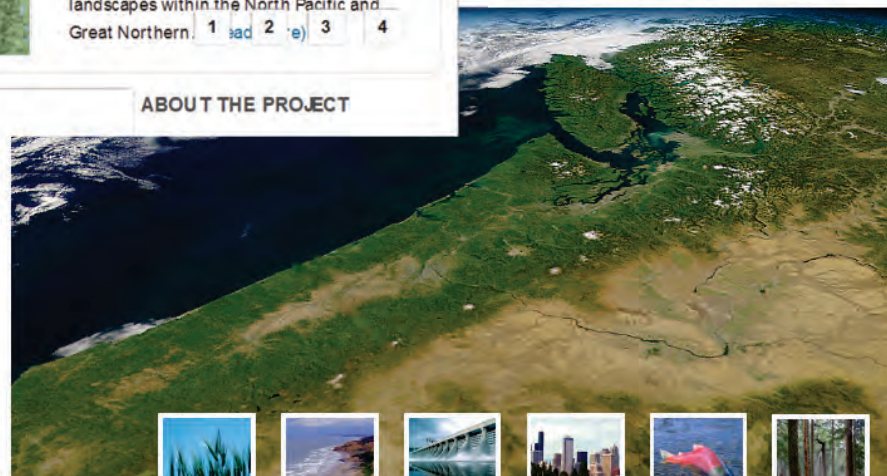
The goal of the Climate Adaptation Case Studies is to inform on-the-ground management and planning with data and tools for assessing climate vulnerability. This project will apply the results of our on-going climate change vulnerability assessment to the management of four complex landscapes within the North Pacific and Great Northern. 1 ad 2 e) 3 4

ABOUT THE PROJECT

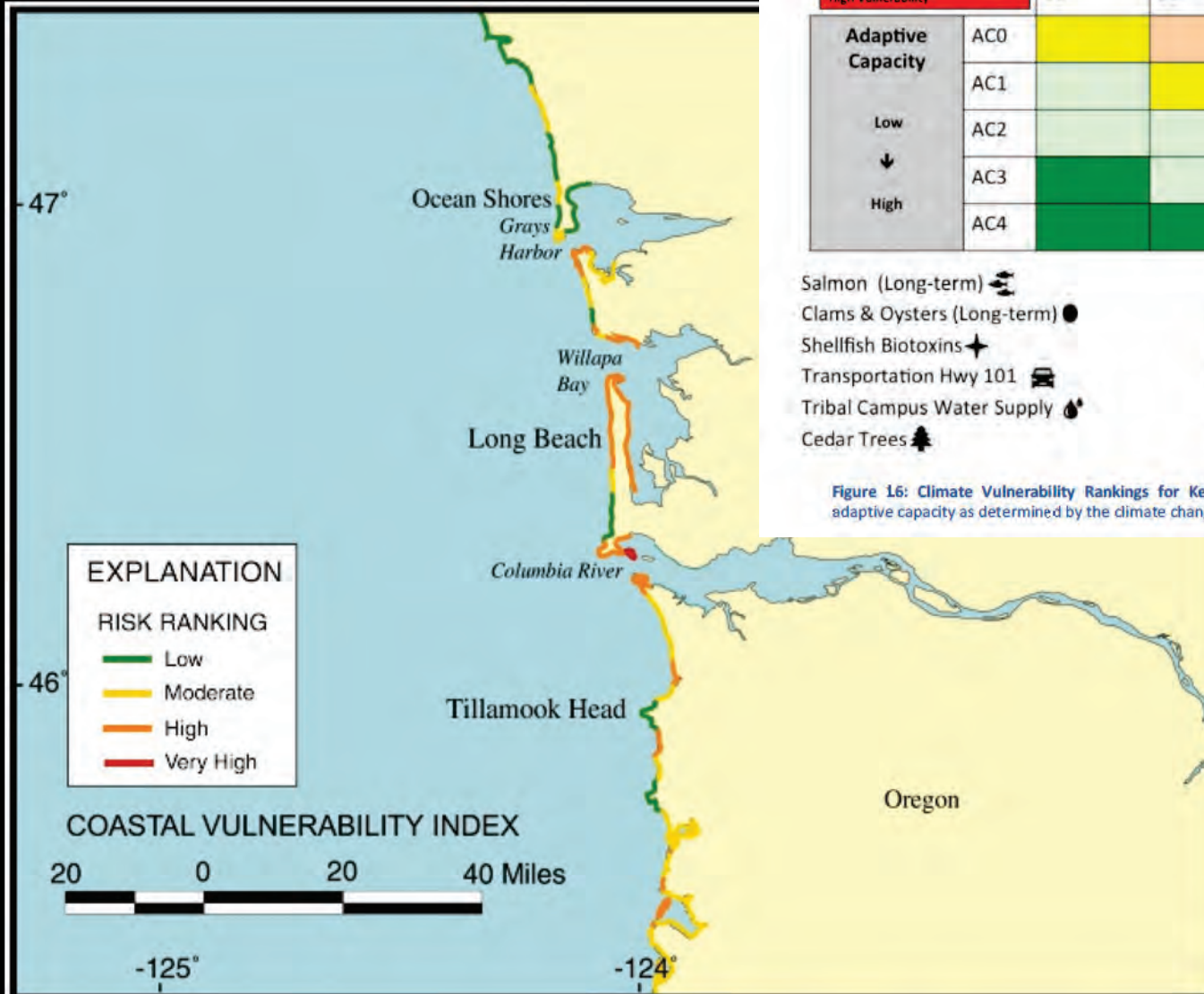
Sea-Level Rise for the Coasts of California, Oregon, and Washington

PAST, PRESENT, AND FUTURE

NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES



The Washington Climate Change Impacts Assessment



Vulnerability Ranking Table

Potential opportunity
Low Vulnerability
Medium—Low Vulnerability
Medium Vulnerability
Medium—High Vulnerability
High Vulnerability

		Sensitivity Low → High				
		S0	S1	S2	S3	S4
Adaptive Capacity	AC0	Medium—Low Vulnerability	Medium Vulnerability	Medium—High Vulnerability	High Vulnerability	High Vulnerability
	AC1	Low Vulnerability	Medium—Low Vulnerability	Medium Vulnerability	Medium—High Vulnerability	High Vulnerability (Icons: Salmon, Clams & Oysters, Shellfish Biotoxins, Transportation Hwy 101)
	Low ↓ AC2	Low Vulnerability	Low Vulnerability	Medium—Low Vulnerability (Icon: Wildfire)	Medium—High Vulnerability (Icons: Cedar Trees, Casino and Longhouse Market)	High Vulnerability (Icon: Fire)
	AC3	Potential opportunity	Low Vulnerability	Low Vulnerability	Medium—Low Vulnerability	Medium Vulnerability (Icon: Jamestown Beach Water Supply)
	High AC4	Potential opportunity	Potential opportunity	Potential opportunity	Low Vulnerability	Medium—Low Vulnerability (Icons: Tribal Campus Wastewater Tanks, Tribal Campus Water Supply, NR Lab & Planning Dept. Buildings)

- Salmon (Long-term)
- Clams & Oysters (Long-term)
- Shellfish Biotoxins
- Transportation Hwy 101
- Tribal Campus Water Supply
- Cedar Trees
- Casino and Longhouse Market
- Jamestown Beach Water Supply
- Wildfire
- NR Lab & Planning Dept. Buildings
- Tribal Campus Wastewater Tanks

Figure 16: Climate Vulnerability Rankings for Key Areas of Concern. Rankings are based on sensitivity and adaptive capacity as determined by the climate change working group⁴⁴.

Characterization

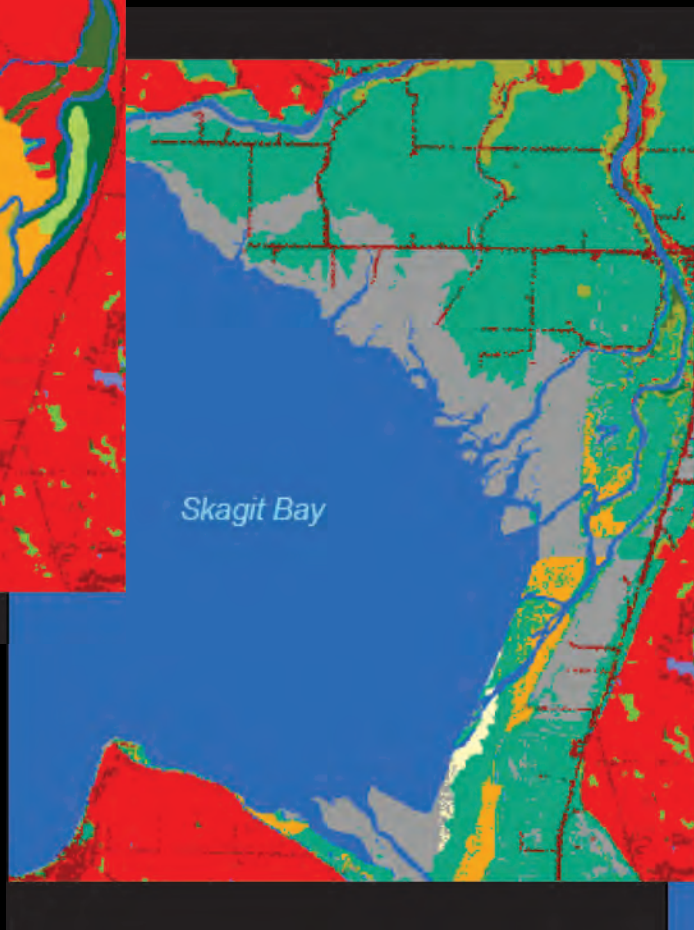
- “Description of the ecosystem wide and shoreline *processes*, shoreline *functions*, and *opportunities* for restoration, public access and shoreline use.”
- Baseline for measuring No Net Loss

Characterization

- “Description of the ecosystem wide and shoreline *processes*, shoreline *functions*, and *opportunities* for restoration, public access and shoreline use.”
- Baseline for measuring No Net Loss
 - *Refine existing information*



Current



2100 No Diking



2100 Diked

- Developed Dry Land
- Undeveloped Dry Land
- Swamp
- Inland Freshwater Marsh
- Tidal Freshwater Marsh
- Transitional Saltmarsh
- Saltmarsh
- Estuarine Beach
- Tidal Flats
- Ocean Beach
- Rocky Intertidal
- Inland Open Water
- Open Water
- Inland Shore
- Tidal Swamp
- Brackish Marsh



Tue Aug 12 13:43:43 2003



Fri Oct 28 13:25:44 2005

Characterization

- “Description of the ecosystem wide and shoreline *processes*, shoreline *functions*, and *opportunities* for restoration, public access and shoreline use.”
- Baseline for measuring No Net Loss
 - *Refine existing information*
 - *Bring in new processes, functions, opportunities*

Refugia



Final Thoughts

- Climate- or hazard-informed planning is as important as planning for climate change or hazards
- Systematic thinking can take you far

Questions?

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