

Climate Change Adaptation: Planning for Climate Change at the Landscape Scale for Clatsop and Tillamook Counties, Oregon

Meeting #2

September 16, 2014, 9:00 AM to 4:00 PM

Clatsop Community College, 1651 Lexington Ave, Astoria
310 Towler Hall

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Project purpose: Align federal, state, local and NGO measures for adapting to climate change in Clatsop and Tillamook Counties.

Meeting goals: Provide information on landscape responses to future climate conditions. Discuss a *Regional Adaptation Framework*. Develop preliminary adaptation objectives.

RSVP REQUIRED FOR LUNCH*

Draft Agenda

- 9:00 AM Startup.** Introductions; review project purpose. Agenda overview. Thoughts since the first meeting?
- 9:30 AM Project outcomes.** Regional Adaptation Framework outline; priority risks and adaptation objectives
- 10:00 AM Presentations and discussion.** Landscape system responses to climate change
Forests: Forest communities, terrestrial habitats, wildfire
Watersheds: Hydrology, flooding, aquatic systems and watershed changes
Coastal shorelands: Coastal flooding, erosion; estuaries; shoreline change
- 12:00 PM Working lunch.** Framework follow through. Workgroup orientation and task. Adaptation objectives
- 1:00 PM Workgroup work session.** Develop preliminary regional adaptation objectives
- 3:00 PM Workgroup report out.** Preliminary adaptation objectives.
- 3:30 PM Workshop progress check and Framework follow-through.** Open discussion and synthesis
- 3:55 PM Housekeeping;** scheduling next meeting
- 4:00 PM: Adjourn**

*** It couldn't be easier: Go to this [Doodle Poll](#). Check the box for "Yes." Or click 'Cannot make it.'**

Framework elements noted at Meeting 1 and Follow-up emails
What is needed to take action? What would you expect to see in a regional framework?

Suggested elements:	Element types:				
	Structure	Information (science)	Coordination	Outreach	Implementation
Use a watershed/estuary watershed approach	X				
Organization so we can organize and synthesize the discussion	X				
Integrate climate variability into the frame	X				
Priorities ... strategies ... implementation	X				
Prioritize risks	X				
Emphasize a few focal resources	X				
Emphasize four or five key issues	X				
Break into sectors; do risk assessments by sectors	X				
Broad-brush strategies that cut across/provide commonality among all sectors	X				
Sectoral assessment of risk	X				
Use health impact assessment as model	X				
Use natural hazards mitigation planning model	X				
What do counties and cities need?	X	X			
Shared vision	X		X		
(Direction)	X		X		
Start conversation, using the same language	X		X	X	
What can be done to improve redundancy and resilience?	X				X
Don't use scenarios, need a range [this polarity could be based on management responsibility]		X			
Need scenarios, medium and best case, as basis for structured decisionmaking		X			
Information at the scale that can be used by local governments		X			
Downscaled projections		X			
Worst case scenarios (rather than a range of possible futures)		X			
Need data on extremes		X			
Examples		X			
Appraisal of what the resource will look like in the future		X			
What do we want to look at in some future point for metrics		X			
Need good visuals; a report in not enough				X	
Public education piece				X	
Identify alternate routes for connecting communities					X
Improved forecasting accuracy (ODA)					X
Via emails (3)					
Tie climate change and resilience planning together	X				
Multi-sectorial involvement: social, cultural, gov't, environmental, ag, health, business, education, etc.	X				
Boiler plate format for an Adaptation Plan	X				X
How will each climate change factor specifically affect our facilities.		X			
Build non-governmental support				X	
Bring it home to how it will affect people personally				X	
How to assess risks, analyze vulnerability, prioritize risks					X
How to establish goals and develop a preparedness plan					X
Identify implementation tools					X
List of State and Federal agencies and what documents and services they have available to assist jurisdictions	X	X	X		X
Freely accessible website with data, presentations, links		X			
Suggestions for project management					
We need incentives so people/organizations remain engaged				X	X
Break out into interest/sector etc.	X		X		
Build more informal time into next meeting					X
Identify prime people/champions				X	
Examples of other states' efforts		X			X
Present options and ask group to select/help decide	X		X		X
Leadership team				X	X

- I. Overview
 - A. Background
 - 1. Starting point: Oregon Climate Change Adaptation Framework risks
 - 2. Coordination: A landscape-scale solution for a landscape-scale problem
 - B. Context
 - 1. The foundation for action: Climate risks on the north coast
 - 2. Geographic scope of the regional framework
 - 3. Participating agencies, jurisdictions, and organizations
 - C. Why are we doing this?
 - 1. Highlight climate risks that warrant adaptive action
 - 2. Organize information from various sources and of varying quality
 - 3. Improve capacity for communities and agencies to address current and future risks
 - 4. Identify and prioritize risks, improve effectiveness
 - 5. Identify measures to reduce risks, consequences, and costs
 - 6. Generally increase support for *adaptation initiatives and actions*
 - 7. Coordinate initiatives and measures to address climate risks in the region
- II. Climate risks in Clatsop and Tillamook Counties
 - A. Interviews: The perceptions of risk
 - B. Current science: What the research shows
 - C. Priority climate risks in Tillamook and Clatsop Counties
- III. Survey of possible consequences of climate changes on Tillamook and Clatsop Counties
 - A. For watersheds; terrestrial and aquatic ecosystems
 - B. For community health and safety
 - C. For coastal systems and ecosystem services
 - D. For community vitality and local economies
- IV. Management objectives for adaptation: To reduce consequences, costs, and risks
 - A. Infrastructure
 - B. Health and safety
 - C. Natural systems
 - D. Working lands
- V. Implementing mechanisms and measures to reduce climate risks
 - A. Natural hazard mitigation plans
 - B. Land use plans
 - C. Watershed restoration plans
 - D. Forest management plans
 - E. ...
- VI. Survey of measures to reduce climate risks (examples)
- VII. Maintaining the North Coast Regional Climate Adaptation Framework; monitoring; long-term integration of adaptation into decision environments

Workgroup Task and Definitions

Scope of the workgroups:

- **WG1: Infrastructure:** Address climate-related risks to public infrastructure investments for systems that support communities, including water supply, waste treatment, stormwater management, energy, and transportation
- **WG2: Public Health & Safety:** Address climate-related risks to the health and safety of coastal residents, visitors, and communities; and private property improvements
- **WG3: Natural Systems:** Address climate-related risks to ecosystem functions and services, including fish and wildlife and their habitats and the capacity of natural systems to mitigate the effects of natural hazards
- **WG4: Working Lands & Economy:** Address climate-related risks to the natural resource base for local and state economies, including commercial farm and forest lands, fisheries, recreation and tourism

Regional Adaptation Framework. The intended product of this collaborative effort is a *regional framework for climate adaptation, or regional adaptation framework*. A regional framework for adaptation extends Oregon’s state-level [Climate Change Adaptation Framework](#) down to a manageable landscape scale in order to strengthen the foundation for local adaptation planning and management actions. The state Framework describes a range of climate risks for the entire state, and identifies needed state agency actions for each risk. Building on the state-level framework, a regional framework is designed to identify priority climate risks affecting the region and a series of management objectives to address those risks. In part because of the geographic scope of a region and the number of agencies and organizations that work in a region, a regional framework is not an adaptation plan *per se*. Rather, a regional framework is designed to function at a broader scale to *inform and influence* the implementation and revision of various plans and decision-making processes affecting land use, public health and safety, and the management of infrastructure and natural resources to address future climate conditions.

The principal elements of a regional adaptation framework are *management objectives for adaptation* or simply *adaptation objectives*. Some may call these goals, principles, strategies, or guidelines. The important point is that they indicate an *approach or action aimed at a desired future condition*.

The work groups’ task is to develop management objectives for adaptation.

Management objectives for adaptation are broad-scale statements that lay out what should be done within various management regimes—or ‘decision environments’—to adapt to variable and changing climate conditions. Management objectives for adaptation are specifically designed to address one or more climate risks. The workgroups are organized to represent different management regimes. Preliminary management objectives from each work group will be revised as necessary when they are brought together with the objectives from other work groups/management regimes.

Management objectives for adaptation are not intended to be directed at any one specific entity or location. Rather, they are intended to work at the broad scale of the entire region. In a regional framework they are designed to address a condition and apply to a broad range of decisions and organizations. They are designed to *inform* the review and revision of various plans and decision processes and criteria that affect public health and safety and the management and use of land, natural resources, community assets and infrastructure. They may state desired future landscape conditions and incorporate adaptive measures.

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A management objective for adaptation will say: *Do* something to *achieve* something. It's OK if preliminary management objectives actually involve more than one objective. The point of the work group's effort is to get as many appropriate objectives as necessary and possible within the short amount of time we have. Examples of management objectives for adaptation:

- Manage water supply systems to improve efficiency and reduce freshwater waste and losses in periods of projected low streamflows
- Improve riparian structure and function in areas where streams have historically been associated with riparian vegetation and good floodplain connectivity
- Revise standards for stormwater infrastructure improvements to reflect precipitation extremes projected to occur starting in the 2030s
- Manage areas and infrastructure at risk of more frequent or permanent inundation by ocean waters to reduce infrastructure and property damage and threats to public safety

Management objectives for adaptation will be fleshed out in the third meeting to identify implementing mechanisms and measures. Note that preliminary objectives may increase risks—be *maladaptive*—within another management system, but such objectives will be identified and revised when preliminary objectives from all the work groups are considered together and (ideally) brought into alignment.

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