



# 2013 BioEarth Stakeholder Advisory Meetings

- Meeting Objectives
- Review of discussion questions to be posed to stakeholders

# Stakeholder Advisory Group Process

Stakeholder advisory group members represent diverse perspectives on agriculture and forest land management in the Pacific Northwest

## **2013**

Nitrogen and Carbon Management  
Water Availability

## **2014**

Water and Air Quality  
Forests and Rangelands

## **2015**

Continuing communication of model outputs, model refinement based on stakeholder input

# Stakeholders Attending Feb 27 & 28 Advisory Meetings in Seattle

EPA	Washington State Department of Agriculture
<b>Snake and Columbia Irrigators Association</b>	<b>OSU Forestry Extension</b>
<b>Natural Resource Conservation Society</b>	<b>Climate Trust</b>
<b>Stockholm Environmental Institute</b>	<b>Columbia Basin farmers</b>
<b>UI Forestry Extension</b>	<b>National Parks Service</b>
<b>Washington Organics Recycling Council</b>	<b>WA State Water Resources Association</b>
<b>Ferry County Tribal WSU Extension Liaison</b>	<b>Spokane Regional Clean Air Agency</b>
<b>Aspect Consulting</b>	<b>Berkeley Forestry Extension</b>
<b>WSU/USDA</b>	<b>Oregon Department of Agriculture</b>
<b>Idaho Water Resources</b>	<b>American Rivers</b>
<b>Department of Natural Resources</b>	<b>Washington Department of Ecology</b>
<b>American Farmland Trust</b>	<b>McGregor Company</b>
<b>Washington State Dairy Federation</b>	<b>Resource Conservation and Development Council</b>
<b>University of Idaho</b>	<b>Climate Solutions</b>

# Goal: Gain insights into 3 key questions

- I. What are current problems of concern (environmental, economic, resource availability)?
- II. What questions do stakeholders have about future changes (climate change impacts, effects of alternative practices), and what information would aid in making better decisions?
- III. What are people's highest priority questions and information needs?

- Suggestions for modifications to the discussion questions for stakeholders?

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- Plans for stakeholder advisory meeting evaluation and continued research on stakeholders' and researchers' perceptions of the process
- Plans for reporting findings to the BioEarth research team
- Connecting with WISDM stakeholder engagement efforts



# Communications Research Update

Studying ourselves – documenting the evolution of PIs perceptions of stakeholder engagement.

Allen, E, C Kruger, FY Leung, JC Stephens (submitted September 2012). Diverse Perceptions of Stakeholder Engagement within an Environmental Modeling Research Team. *Journal of Environmental Studies and Science*.

Studying engaged stakeholders – documenting evolution of stakeholders' perceptions of utility of modeling and engaging with modelers/scientists

Surveying stakeholders before and after stakeholder advisory meetings

## **Growing Relevance/Importance of our work**

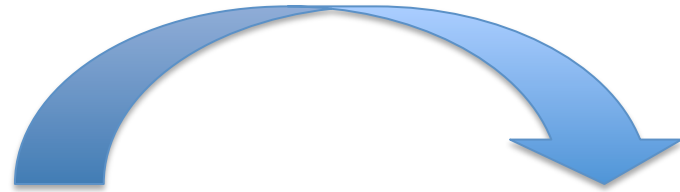
- Severe underutilization of climate models as tools supporting decision-making – a usability gap in climate information

### **RECOMMENDATION: Several high-profile important papers:**

Weaver, C. P., Lempert, R. J., Brown, C., Hall, J. A., Revell, D., & Sarewitz, D. (2013). **Improving the contribution of climate model information to decision making: the value and demands of robust decision frameworks.** *Wiley Interdisciplinary Reviews: Climate Change*, 4(1), 39-60.

Lemos, M. C., Kirchhoff, C. J., & Ramprasad, V. (2012). **Narrowing the climate information usability gap.** *Nature Climate Change*, 2, 789-794.

# Call for a Paradigm Shift



Complexity/uncertainties  
in both earth systems &  
human decision-making

## Paradigm 1 : predict-then-act

Figure out best-guess future and design best policy for that future

**Guiding Question:** What is most likely to happen?

Prediction-based paradigm places unrealistic demands on modeling and climate science and artificially limits use for supporting real decisions

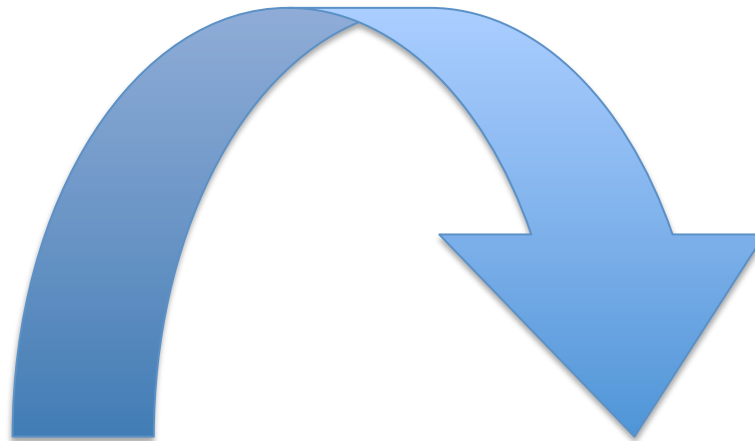
## Paradigm 2: Seek Robust Solutions

Identify greatest vulnerabilities across range of possible futures (different scenarios) and identify suite of policies that perform reasonably well across the range

**Guiding Question:** How does the system work and when might policies fail?



# Call for sustained processes of close interactions among knowledge producers & users



**Paradigm 1 :**  
**focus on products**

**Paradigm 2:**  
**focus on process**

# Stakeholder Advisory Group Process

**Depending on relationships developed during initial meetings...**

-We may want to broaden or expand scope of stakeholder engagement

- We may want to work more closely with a specific sub-set of stakeholders

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