

Willamette Water 2100 Spring 2012 Workshop Summary

Chemeketa Center for Business and Industry, Salem, Oregon—May 9, 2012

The Willamette Water 2100 project team appreciated the time and involvement of 71 stakeholders and researchers at their Spring 2012 workshop in Salem, Oregon. This summary recaps the meeting and highlights some of the information gathered in the event's pre- and post-meeting surveys, focus groups and interactive sessions. This is a preliminary report and the rich dataset gathered will be the focus of more comprehensive future publications.



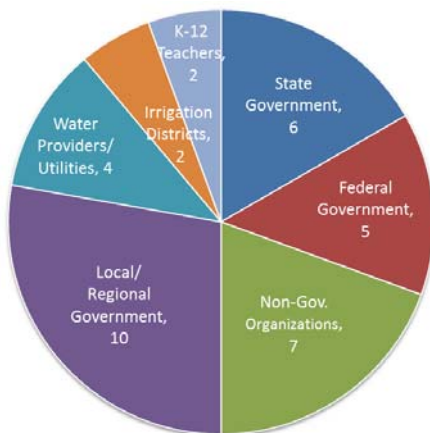
Workshop Purpose and Participants

The purpose of the workshop was to:

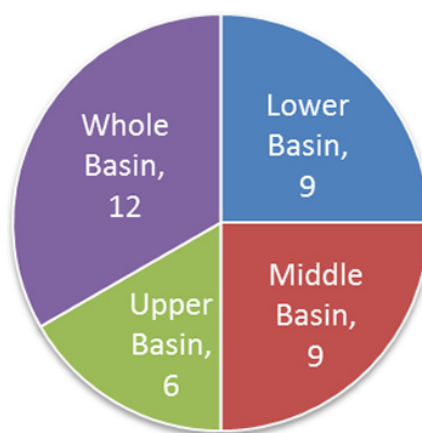
- Inform Willamette basin water managers and decision makers about the project.
- Gather information about perceptions and concerns about water availability in the Willamette Basin, and about current water management tools and planning horizons.
- Receive early feedback and input on the project's modeling approach.

Participants at the workshop came from throughout the Willamette Basin and represented many different organizations. They were recruited from 2011 Learning and Action Network field trips (see water.oregonstate.edu/ww2100/stakeholders), the professional contacts of the research team and their collaborators, and other persons who expressed interest in the project at regional conference and association presentations.

Organization Type



Home Region or Jurisdiction



The charts above show the count of participants from different organization types and home regions or jurisdictions. In addition, 18 university faculty and 17 graduate students attended the meeting. In total, 71 people participated.

About Willamette Water 2100

Researchers from Oregon State University (OSU), the University of Oregon (UO), and Portland State University (PSU) are examining how climate change, population growth, and economic growth will alter the availability and the use of water in the Willamette River Basin over the next one hundred years. One project component is development of a GIS-based modeling tool that will provide researchers and decision makers with a way to visualize the Willamette Water System and evaluate the interaction of management choices with changing environmental and socioeconomic conditions.

The project team formed a "Learning and Action Network" (LAN) as a forum for collaboration with local water managers, experts and decision makers. They hope that the LAN will help inform development of a practical tool and will promote dialog about water management in the basin.

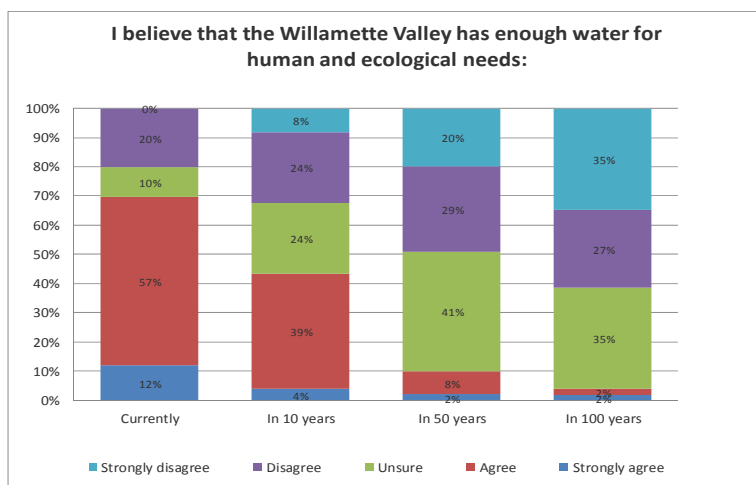
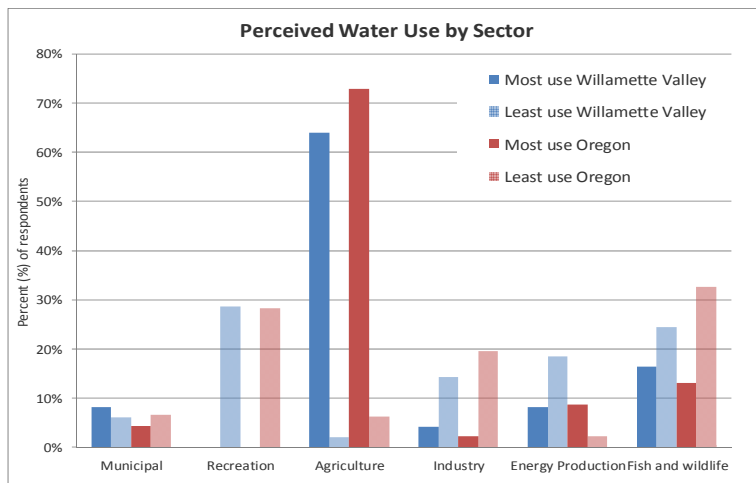
The five year project began in 2010 and is funded by grants from the National Science Foundation.



Pre-Workshop Survey

Prior to the workshop, participants completed an online survey on water use. Here we highlight some of the responses.

- For both the Willamette Valley and Oregon, the greatest percentage of respondents perceived agriculture as using the most water (n = 50; see graph at right). This perception matches USGS reporting for water withdrawals – about 50% of surface and groundwater withdrawals in the Willamette Basin and 80% of withdrawals statewide are for irrigation (PNWERC, 2002 and Kenny et al., 2009).
- A majority of respondents agreed that the Willamette Valley has enough water to meet current needs, but that agreement decreased for future time periods (n = 50; see graph at right).
- Public feedback about water management often focuses on water quality, financial concerns and costs, trends with increasing population and the environmental impact, and water rights.
- Concerns about quality of life were diverse; common responses included population growth, water availability and quality, environmental degradation, climate change, and policy planning.
- From the workshop, respondents hoped to learn about recent research, ways to maintain water availability and management, potential water use future trend, components of the Willamette Water 2100 project, and public perspectives on water scarcity.



Focus Groups

During the morning of the workshop, six concurrent focus group discussions were led by the project team and graduate students. Participants were grouped by home region or jurisdiction—including one group each for the upper, middle, and lower Willamette River Basin (WRB), and two basin-wide groups. There was also a focus group of project scientists. Three major themes were discussed (1) defining and understanding water scarcity, (2) information and collaboration networks, and (3) water management in the WRB (time frames considered and options available to manage changes in water availability).

Several preliminary findings emerged from these discussions. Defining water scarcity proved to be difficult, with some participants contesting what others perceived as “the givens”. Many examples of scarcity were provided as well as some examples of over-abundance (such as flooding). Some discussed whether scarcity is a physical or a social/ infrastructure/regulatory problem, and whether the scale at which problems emerge differs from the scale at which policies are made.

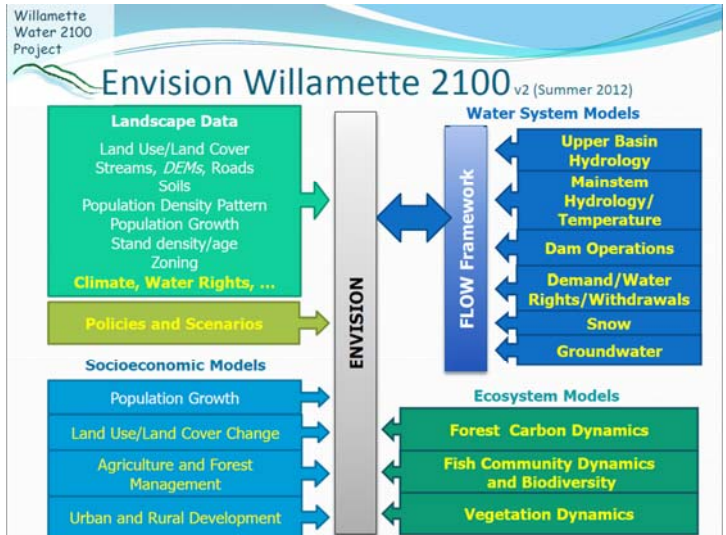
Participants reported many opportunities for exchange of



information and collaboration. With respect to options available to manage scarcity, participants discussed whether scarcity could be managed by modifying existing policy and technology, or whether major shifts in public attitudes, policies, and technological or physical solutions would be necessary in the future. Discussion of options available to address scarcity continued in the afternoon session, with all participants invited to contribute to a large table identifying policy options to address water scarcity

Plenary and Poster Sessions

The afternoon sessions began with plenary presentations by Dr. John Bolte (OSU Biological and Ecological Engineering) and Dr. Bill Jaeger (OSU Agricultural and Resource Economics). Dr. Bolte gave an overview of the project, its rationale and scope and introduced Willamette Envision, the project's modeling framework. Dr. Jaeger focused on the human system and the project's approach to policy analysis. The plenary presentations were followed by 11 "pop-up" presentations that introduced the research team and their posters on display in the following session. Posters described the suite of water system, ecosystem and socioeconomic models that will be integrated within Willamette Envision. Copies of the plenary presentations and posters can be viewed online at: <http://water.oregonstate.edu/ww2100/may-2012>.



Policies and Actions Table

The poster session also included an "interactive table" where participants were invited to post ideas of water-related policies and actions that they would like to see modeled. The table categorized actions by sector (rows; e.g. agricultural land and water use) and policy type (columns; e.g. public investment and management).

Some examples of suggested actions included: greater ability to transfer, trade or modify water rights, water banking, conservation easements, public education, and changes in dam operations. Feedback also emphasized the need to accurately model the legal framework that currently governs water management in the basin and the need to consider the industrial/corporate water use sector. Since the May 2012 meeting, the research team has reviewed the table to identify which suggestions can be incorporated in the modeling effort.

Suggestions also correlated with the expertise of the attendees: there were more comments related to urban and rural residential land and water use and fewer related to

agriculture, just as there were more attendees from the urban sector than there were from the agricultural sector (see page 1). This observation highlights the need for the project team to engage further with the agricultural water use sector.

Model Component	Regulatory Change	Market-based Policy	Public Investment and Management	Private Investment and Management	Other
Agricultural Land and Water Use	Sticky notes	Sticky notes	Sticky notes	Sticky notes	Sticky notes
Urban and Rural Residential Land and Water Use	Sticky notes	Sticky notes	Sticky notes	Sticky notes	Sticky notes
Forest Land Use	Sticky notes	Sticky notes	Sticky notes	Sticky notes	Sticky notes
Aquatic Ecosystem Use	Sticky notes	Sticky notes	Sticky notes	Sticky notes	Sticky notes
Other	Sticky notes	Sticky notes	Sticky notes	Sticky notes	Sticky notes

Post-Workshop Evaluations



To help us improve future workshops, participants (n = 20) completed a short evaluation of the day's events. Morning focus groups involved diverse perspectives, good discussion and information, and were well-facilitated. The plenary provided a good project overview. For the poster session, participants enjoyed the "speed-introductions," the sticky notes as comment tools, and the accessibility of researchers. Also enjoyed was the group discussion about data gathering, terminology, and legal considerations.

Overall, participants found the workshop very interesting and informative, well-organized, and expressed interest in discussing the sample scenarios. Suggestions for improvement included recruiting participation from agriculture, business groups, elected officials, policy makers, and tribes. Questions about data availability could be answered more efficiently if provided ahead of time. Others sought more time for large group discussions, posters, and contact cards for researchers and participants.

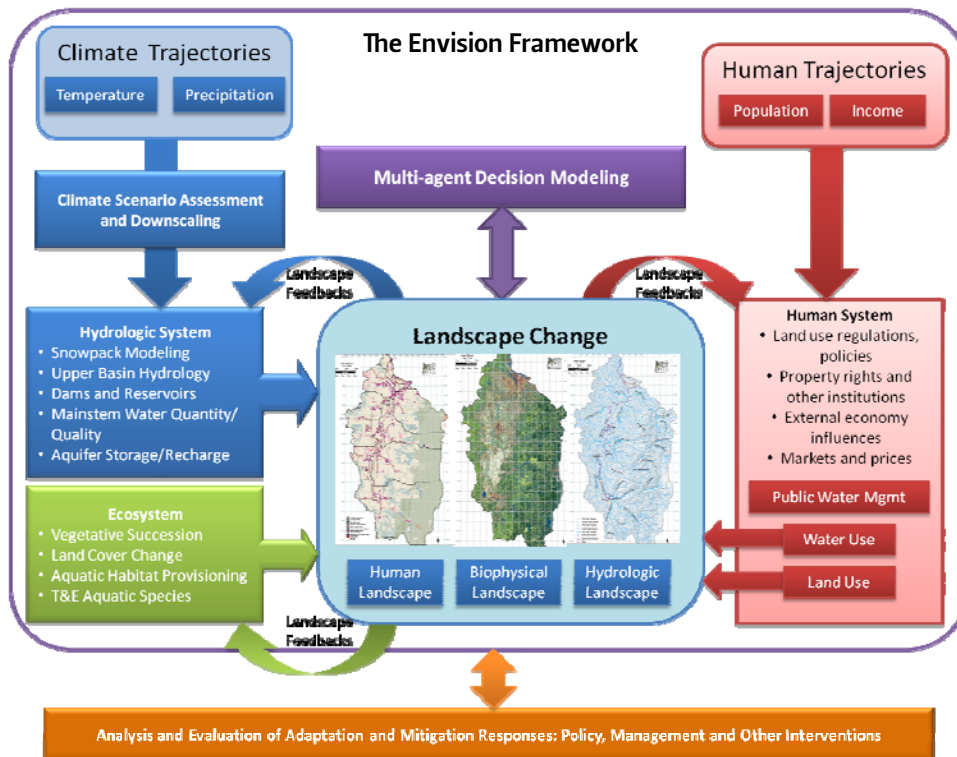


Current Steps

The policy and actions table and focus group discussion helped identify priority issues for both stakeholders and the science team. In June and July 2012 the project executive committee discussed suggestions made on May 9 and the science team's plans for modeling each element. The list below highlights some of the priority issues for stakeholders that will be incorporated into the modeling effort; we will update you in the late fall on our progress :

- The existing water rights framework
- Energy costs (incorporated in agricultural water use model)
- Crop choice
- Municipal and industrial water pricing
- Expansion of ASR
- Conservation land acquisition and easements
- Floodplain, wetland, and riparian management
- Stream temperature and temperature regulations
- Fisheries response to climate change
- Snow retention through forest management
- Reservoir operations and rule curve changes
- Changes in water allocation from federal reservoirs
- BiOp and other conservation plan requirements

The diagram below illustrates the modeling framework that the project team is using to visualize and assess alternative future scenarios.



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