

Policy Advisory Group Meeting 6
Integrated Water Resources Strategy
July 19, 2011 – Meeting Notes
Oregon Water Resources Department
Salem, Oregon

Members

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Eric Quaempts
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Janet Neuman
Joe Whitworth
John DeVoe
Lorna Stickel
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Member Absent

Rick Wells
Bill Gaffi
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Staff/Project Team

Phil Ward, Director, WRD
Dick Pedersen, Director, DEQ
Katy Coba, Director, ODA
Brett Brownscombe, Gov. Office
Brenda Bateman, WRD
Karen Tarnow, DEQ
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Melissa Leoni, OWEB
Alex Phillips, OPRD
Ruben Ochoa, WRD
Karen Homolac, OBDD
Gabrielle Schiffer, DCBS
Cynthia Solie, OCWCOG, Facilitator

Audience

April Snell, Oregon Water Resources Congress
Beth Herzog, Legislative Committee Services
Beth Patrino, Legislative Committee Services
David Pilz, The Freshwater Trust
Helen Moore, Water for Life
Jeanne LeJeune, Oregon Water Resources Commission
Jim Welsh, Oregon Cattlemen’s Association
John Jackson, Oregon Water Resources Commission
Katie Fast, Oregon Farm Bureau
Kay Tiesl, Oregon Cattlemen’s Association
Kim Swan, Clackamas River Water Providers
Kimberley Priestley, WaterWatch of Oregon
Leslie Bach, The Nature Conservancy
Niki Iverson, Joint Water Commission & City of Hillsboro
Nitin Joshi, City of Salem
Paige Evans
Rosy Mazaika, Bonneville Power Administration
Trish Carroll, U.S. Forest Service
Willie Tiffany, City of Hillsboro

Agenda Item I, Welcome, Introductions, and Agenda Review

Ms. Cynthia Solie, meeting facilitator, led members, staff, and the audience through introductions. Ms. Solie explained most of the meeting would be focused on a series of draft recommended actions released by the Project Team in late June. The Policy Advisory Group will be given an opportunity to identify any actions that are missing, to discuss how they fit together as a whole, and to determine which actions should be key, high priority actions to implement in the first five years of the strategy. Ms. Solie invited the audience to join staff and the Policy Advisory Group during lunch, sponsored by the Oregon Water Utilities Council.

PAG members had no specific comments regarding the meeting agenda. A member requested a short budget update regarding the strategy.

Agenda Item II, Review October 6, 2010 and January 5, 2011 Meeting Notes

The October 6, 2010 and January 5, 2011 meeting notes were approved. Following approval of the meeting notes, Dr. Brenda Bateman, IWRS Project Manager, introduced Brett Brownscombe of the Governor’s Natural Resources Office. Mr. Brownscombe serves as Governor Kitzhaber’s Deputy Policy Advisor for Natural Resources.

According to Mr. Brownscombe, Governor Kitzhaber is excited to see where this strategy may lead, as water is one of the key defining issues for Oregon. The Governor encourages members and staff to think big and to take some bold steps for the State and to better define the water needs to support fish recovery, water

quality, and Oregon's economy. Mr. Brownscombe was recently encouraged by Legislators to participate and engage in IWRS meetings as much as possible. Mr. Brownscombe committed to continuing engagement with the PAG and he thanked PAG members for their involvement.

Agenda Item III, Update on IWRS Work since the January PAG Meeting

Dr. Bateman provided a budget update and gave a brief presentation, covering the following:

WRD's 2011-13 Budget. The Water Resources Department fared well during the budget process. The two limited duration positions working on the IWRS will carry forward into the 2011-13 biennium. Both positions were transferred to the General Fund.

Listening Mode for the Strategy. The Policy Advisory Group is meeting for the sixth time. Between meetings, the Project Team has been checking in with the State Agency Advisory Group, the Federal Liaison Group, and the Water Resources Commission to further develop ideas and fill in technical details. The Department of Consumer and Business Services and Oregon State University's Institute for Natural Resources recently joined the State Agency Advisory Group. Oregon tribes have also participated throughout the process, and have provided thoughtful comments. Until now, the Project Team has somewhat reserved the consensus process until the IWRS is further along. Members should be able to see their voice in the draft actions and will have an opportunity to provide further feedback later in the meeting.

Circling Back on Issue Papers. The draft issue papers serve as background and express the rationale for the strategy and the actions associated with it. The most recent public comment period ended in early March. The Project Team received comments across a broad spectrum of issues. Commenters appreciated new pieces (e.g., conjunctive management), and pointed out still-missing issues (e.g., transboundary competition). Sections of the issue papers were used as background for the twelve bulletins released in late June. This fall, the Project Team plans to develop the background for the strategy by using the bulletins, workplan, framework, and issue papers.

Components of the Framework. The framework was developed to provide a visual outline that shows how each piece of the strategy fits together. Identifying the costs for each recommended action will happen as part of the budgeting process, occurring a year from now. Some changes have been made to the framework from the previous version submitted to the Legislature in February. For example, Objectives 1 & 2 (Understanding Instream and Out-of-Stream Needs) and Objective 3 (Understanding Oregon's Water Resources/Supplies) have been renumbered and the draft recommended actions have been added to the framework.

The guiding principles listed on the framework serve as a checklist. Some of the guiding principles are new. The Project Team consolidated some of the principles and descriptions, hoping to reflect the PAG's previous discussions. After lunch, members would have a few minutes to consider any changes to the guiding principles.

In February 2011, PAG members were given an opportunity to offer comments on the draft recommended actions by responding to a homework exercise. The Project Team received six responses. Although statistical conclusions could not be drawn from the exercise, the responses were detailed and informative. Many of the draft recommended actions and sub-bullets reflect input from this exercise.

The draft recommended actions, dated June 23, 2011, are available for public comment through the end of August. The Project Team recently sent out a media release regarding the public comment period to

several dozen local papers and industry associations in hopes of circling back with the eleven communities visited over a year ago.

Many of the draft recommended actions are accompanied by a symbol that indicates whether an action is a key, priority concept; has a need for applied research; or likely involves legislation or rulemaking. The “key” symbol marks those actions that should be implemented in the first five years of the strategy, were identified as part of the legislation, or would be a necessary first step before implementation of another action. The actions are not limited to implementation by state agencies only. For example, universities could take the lead on data gathering or filling research needs.

Today’s Meeting. The goal of today’s meeting is to gather feedback on the draft recommended actions, with a particular focus on two issues that need additional discussion and input (Bulletin 9: Funding; and Bulletin 10: Place-Based Approaches).

Next Steps. The next PAG meeting will be held on Tuesday, November 8, 2011. The Water Resources Commission is scheduled to adopt the strategy next summer. The final PAG meeting in 2012 will focus on implementation.

Mr. John Jackson, Water Resources Commission Chair, shared that the Commission will be the final adopter of the strategy, but will not do so in a vacuum. The Water Resources Commission plans to communicate with other boards and commissions prior to adoption through briefings. Chair Jackson informed members that communication with other boards and commissions has already started.

Answering member’s questions, the Project Team clarified that the implementation clock begins once the strategy is adopted and HB 3369 only requires a notification to other boards and commissions. There is no requirement for other boards and commissions to act on the strategy. Some members of the PAG felt there should be formal communication lines established and staff should consider allowing other boards and commissions to participate in a formal comment process as a way to acknowledge broad acceptance and integration of agency actions, since it was important to the Legislature that this be an integrated strategy. A PAG member felt that the various commissions should say whether the Strategy is “good or bad,” and also sign off on implementing actions relevant to their agencies. The various boards and commissions should acknowledge some actions implicate their respective agencies and take responsibility for implementation.

Mr. Brownscombe stated that every month Governor Kitzhaber convenes the Natural Resources Cabinet, comprised of agency directors. When they discuss the strategy this fall, there will be an opportunity to identify where the coordination and next steps will take place.

Mr. Bruce McIntosh, Oregon Department of Fish and Wildlife, mentioned that staff from the Water Resources Department provided a briefing to the Fish and Wildlife Commission early in the process. The Commission has been supportive of the work. Karen Tarnow mentioned staff would meet with the Environmental Quality Commission to see how they would want to respond to the strategy. Ray Jaendl, Oregon Department of Agriculture, mentioned that Mr. Tracy Liskey, a member of the Policy Advisory Group, also serves on the Board of Agriculture and provides updates on the strategy, as needed.

Agenda Item IV, Review of the Draft Recommended Actions

During this agenda item, members walked through the draft recommended actions, offering feedback on each, including the bulleted items. Ms. Solie asked all members to rate their general approval of each numbered action by showing thumbs up/down. The June 23 version of the draft recommended actions and comments from the PAG meeting are shown on the following pages. The listed comments also include additional written

comments from members. The Policy Advisory Group's general rating of the numbered actions is shown in italics.

Bulletin 1: Understanding Oregon's Water Resources & Supplies

ACTION 1.A: "MAP" OREGON'S WATER-RELATED INSTITUTIONS

There are more than 15 state agencies whose responsibilities touch upon some aspect of water management and data collection, as well as dozens of federal agencies and hundreds more private and local entities. Document the major agencies involved in water management and supply in Oregon, describing their areas of responsibility and available data sets to further integrate across jurisdictions and improve coordination. [State - Universities]

Comments on Action 1.A. *(Include action in IWRS, with modifications)*

1. This action should be described with more urgency and a clearer purpose.
2. Describe how agencies consult with one another and how they might work better.

ACTION 1.B: FILL IN DATA GAPS IN SPECIFIC ISSUE AREAS

Collect and process data, and share more information related to the state's water resources, in order to determine how best to meet Oregon's water needs. This is a long-term funding commitment in the area of surface water and groundwater data collection, monitoring, and studies. Basin-led efforts could help prioritize the funding of water quality and quantity data collection [See Action 10.c]. Generally, agencies have identified the following statewide priorities. [State – Federal – Local]

- Conjunctive Management of Groundwater and Surface Water.
 - ~ Further our understanding of the relationship between groundwater and surface water. State and federal agencies have already undertaken three basin-wide groundwater investigations in Oregon, and future investigations are planned. [WRD – USGS]
 - ~ Maintain and install additional surface and groundwater monitoring systems in prioritized areas, for both water quantity and quality.
 - ~ Collect information about "other" habitat conditions, such as channel morphology, substrate, and fish passage issues.
 - ~ Monitor changing surface water and groundwater conditions related to climate change [see Climate Change Action 5.a]. Establish new surface water gages and monitoring wells, where appropriate.
- Integrate Water Quality and Water Quantity Efforts.
 - ~ Fully incorporate water quantity into DEQ's TMDL requirements. [DEQ]
 - ~ Monitor and evaluate pollutants that do not yet have water quality standards, but that are present in Oregon and of concern (e.g., nutrients, sediments, emerging contaminants, toxics)
 - ~ Evaluate ecosystem health as it relates to water quality and quantity [see Action 12A-D].
 - ~ Evaluate wetland, riparian, and other restoration mitigation programs for the purposes of identifying best management practices. Identify future restoration and mitigation projects with the greatest potential to improve water quality and quantity; utilize funds from the Oregon Watershed Enhancement Board to do so.
- Integrate Federal, State, and Local data collection efforts [See Action 10.C]. Use OWEB and other grant monies to provide training to local partners, in data collection methodology, to ensure more data collection and wider application of data.

Comments on Action 1.B. *(Include action in IWRS, with modifications)*

1. Add recommendations to address the groundwater quality problems described in the bulletin, especially for nitrates. Restoring funding for DEQ's groundwater quality program is a start.
2. Draw more attention to the need for real-time data in order to make real-time management decisions, to support climate change efforts, etc.
3. First Bullet: Conjunctive management of groundwater and surface water should include a better understanding of exempt-use wells. This is particularly important in areas designated as critical or limited groundwater areas.

4. Regarding the recommendation, “Fully incorporate water quantity into DEQ’s TMDL requirements.” Describe more specifically what that means. Here are some possibilities:
 - a. Develop TMDLs that are designed specifically to address flow problems. Montana did this, and they are making progress on implementing the TMDL. However, EPA took no action on the TMDL because flow is not a pollutant, and EPA does not require TMDLs for flow. This means that the flow TMDL does not count toward the consent decree on the number of TMDLs the state is required to develop each year.
 - b. When flow is associated with a water quality impairment, incorporate flow improvement into the TMDL requirements. EPA has approved these TMDLs. Ohio did this on the Cuyahoga River. They issued two TMDL implementation scenarios, one with increased flow releases from an upstream dam, and one without. Wastewater and industrial permittees pushed for the flow improvements so they wouldn’t be subject to the stricter waste load allocation requirements caused by low flows. The TMDL resulted in removal of a small dam and increased releases from a larger dam, and water quality improved rapidly.
 - c. DEQ could apply for instream water rights on streams that are impaired by low flows.
5. The second bullet could lead toward more regulations, rather than just a better understanding of supplies and water resources. Caution against the wording in this title.
6. Regarding the recommendation, “Monitor and evaluate pollutants that do not yet have water quality standards, but that are present in Oregon and of concern (e.g., nutrients, sediments, emerging contaminants, toxics)”. This is needed, but it should also include monitoring of toxics for which there are standards. Toxics are not a part of conventional monitoring.
7. Caution should be taken not to oversimplify some of these actions. For example, “monitoring for toxics” is great, or monitoring in general, but it is a very involved process. Do not use the term “all” in some of these actions. Are methodologies, funding, and technologies available?
8. Many federal constraints are difficult to adjust. The Oregon Department of Environmental Quality does not necessarily have the authority to regulate all sources, and therefore, puts into place draconian restrictions on point sources and often engages in wishful thinking about non-point sources and other sources. The TMDL Program is a place to start integrated planning.
9. Some of these bulleted items need to be more active in tone. The statement, “future investigations are planned” is too indecisive. Instead, state, “we are going to actively pursue completing that data set.”
10. Some of the bulleted items are not in the right section. The reference to TMDLs and fish passage should be placed in areas where these issues should be addressed, possibly in the instream and out-of-stream sections.
 - a. Partially agree with regard to TMDLs. TMDLs play multiple roles, helping to assess water quality, which makes it fit within this bulletin. TMDL’s also help to implement the goals. With regard to the Cuyahoga example in Ohio, DEQ sees TMDLs and modeling work as potential tools to look at various scenarios /options. DEQ is not using flow in TMDLs as a regulatory hammer, but rather, to help investigate policy options.
 - b. Regarding TMDLs, while there is a data gathering component, this bullet also contains actions, which belong in later bulletins.
11. Look at opportunities where agencies can consult better. Get a directive from the Governor about giving the agencies “space” for doing creative thinking about how best to make these actions work within their agencies. Agencies often spend a lot of time making sure they do not get into trouble, rather than engaging in creative thinking.
12. The development of currencies around the quantitative value of flow, riparian restoration, etc., allows us to make some informed decisions regarding management trade-offs (can relate to TMDL’s and flow modeling).
13. Many of these actions have a cost component to them. Would adding a dollar sign symbol help set priorities? *Project Team response: There may not be sufficient time to do a detailed cost component now;*

however, it might be worthwhile to add some type of broader brushstroke, or first-cut of costs (big project vs. small projects).

14. Some of the PAG's comments do start bleeding over into other bulletins. This one is about understanding the resource. The link between Actions 1.B. (data gaps) and 10.C. (place-based planning) is appropriate; make sure that this link is there. Before proceeding with decision-making, these gaps need to be filled (not all of them). Place-based work needs to rest squarely on data.
 - a. Must emphasize that one size does not fit all in these actions. Agree with linking Actions 1.B. and 10.C. Important to understand what differentiates basins (hydrology, population, etc.). Good job so far pulling together information, however, it needs a lot more work to arrive at the right product. Need the Governor's leadership to sort out scuffles between agencies. Sorting out the dollars and level of effort can occur later.
15. Some of the items listed under the second bullet are beyond data collection. Move the program elements elsewhere.
16. Wouldn't it be worthwhile to put something in here about constantly improving water right records?
 - a. It is a good idea. It would not hurt the agencies to add a reference about cleaning up, clarifying, and improving their internal data sets. It would be helpful for the PAG to weigh in on necessary data needs.
 - b. Improving the water rights database is relevant to bulletins 2 and 3.
17. Integrated agency work will demand integrated data, which necessitates the need to move toward a common language set, including greater technical capacity and information systems. There are many opportunities to gain efficiencies. Make sure agency actions are not in conflict and that agencies are speaking with one voice.

Comment on the Water Resources/Supplies Bulletin, Background Section:

1. The statement in the text that begins with "500 surface water gages in Oregon" and includes... "assess the status of conventional and toxic pollutants" is misleading. Unlike conventional parameters, toxics monitoring is not typically conducted on an ongoing basis at surface water gages; toxics monitoring is usually done in one-time studies. As a result, there is no knowledge of trends or changes in toxic pollutant levels.

Bulletin 2: Understanding Oregon's Out-of-Stream Needs

ACTION 2.A. UPDATE LONG-TERM WATER DEMAND FORECASTS

- Update the Statewide Demand Forecast. Update the Department's fifty-year forecast of water needs across sectors and locations (state, basin, and county levels). Identify trends in economic development, irrigated agriculture, urban-rural population growth/shift, future industrial and energy needs, and more. Survey planners and economic recruitment officers as part of this process. Some stakeholders take this recommendation further, calling for the state to create standards to evaluate claims of demand and publish common standards for water demand forecasts. [WRD – Local – OUS] 
- Improve the long-term water demand forecast by enhancing the state's water-use reporting program and coordinating with the U.S. Geologic Survey to compile consistent water-use information. [WRD – USGS]
- Develop models / studies on the "economic value of water to Oregon." This information is of critical importance to the U.S. Bureau of Reclamation and other major funding agencies, where economic information is needed to assess the cost-benefit of potential water resource projects or proposals. 
- Establish Legislative requirements and funding for five-year updates to these comprehensive forecasts. 

Comments on Action 2.A. (Include action in IWRS, with modifications)

1. Remove "and more" from third sentence. Remove the phrase or explain how you will use it. Otherwise, it deflates the credibility of the product.
2. Establishing common standards for water demand forecasts must be incorporated into the state's demand forecast process to ensure the forecast is reasonably accurate.
3. Third Bullet: Include the economic value of water for both instream and out-of-stream uses.
4. Regarding the economic value of water, who is putting the value on it? Prices differ between agriculture water and municipal water. Who will get to decide?
5. Unless the information is available, it is not possible to negotiate new supplies. Put an effort into data collection. This will be critical for water development projects moving forward. Put a finer point on the urban/agriculture crossover. For example, not all irrigation districts are the same. There are even different practices for growing the same crops. Get to a better understanding of what the water is used for and then how/how much of it is used. Is there room to create incentives for irrigators who use twice the amount of water as their neighbors for the same crop? Create incentives to move to higher levels of efficiency. That is where the opportunities lie. This group needs to suggest changes. Do not look at agriculture at a very coarse scale. That does not help make targeted improvements. Look at the information in 2.A. and 2.B. together and look at efficiency standards.
 - a. This action is trying to understand out-of-stream needs. The efficiency discussion should occur under Bulletin 11: Water Management.
6. Why use needs vs. demands? It is a matter of want vs. need. Be more urgent about identifying needs instead of demands. This applies to agricultural and municipal use as well. Using potable water for all activities within a municipality needs to be questioned.
7. It does not matter whether the term "demands" or "needs" is used, or whether to engage in "aspirational" forecasting. Forecasting will be based on available, solid water use data. "Demand forecasting" is a term of art and a projection into the future, based on the way water has been used in the past. Focus on identifying where changes can be made to potable water, water conservation, and water efficiency, etc.
8. There is too much emphasis on what is done today and not enough on creative approaches and looking to the future. As we update the demand forecast, also identify trends in how water is used and not assume the same practices are occurring.
9. Delete sentence about "some stakeholders." There are already standards for water demand forecasts. Revisit the Division 86 rules for water management and conservation planning. Look at the urban-rural population growth/shift; there have been significant per capita demand shifts taking place in the past few years. People are already working on these topics and driving down per capita water use. Demand forecasting is not static; it does take into account per capita trends over time.

10. Demand drives the solutions, and that is why the PAG is having this discussion. Demand will drive storage development, water conservation, etc. Do not assume that demand will be overstated.
11. There is disagreement about how to project demand or need in this state. Surveys will not provide the information that is needed. The Division 86 rules do not apply to all water users; it does not apply to all agricultural water use or to all municipal water providers. The state does not have across the board data, therefore, some scenario planning is needed. If water demand forecasting is going to occur in this state, a better tool is necessary, with inputs that are more thoughtful. Overlaying population growth on agricultural land would be helpful. Include more detail in here about various transfer tools, such as the potential for future transfers, and how the process could be modified to facilitate more transactions.
12. Regarding the demands versus needs discussion, these demands are going to be consistent moving forward. Supply is not consistent. Supply will dictate the pinch points / bottlenecks moving forward.
13. If the State cannot do it all, a place-based approach could be used to develop forecasts.
14. One of the challenges of developing the strategy is many of these statements could live in more than one bulletin. This discussion may fit better with land-use planning.
15. Appreciate the “build-upon” approach used in these actions. Forecasting is familiar to many of us and the Oregon Water Resources Department has methodologies already in place.

ACTION 2.B. IMPROVE WATER-USE MEASUREMENT

- Increase investments and partnerships in qualified staff, measuring equipment, and real-time access to data in order to measure significant diversions in high priority watersheds. Partner with the Bureau of Reclamation, Bonneville Power Administration, and the USDA-Natural Resources Conservation Service to help fund the purchase and installation of measurement devices. Conduct follow-up inspections to ensure that measurement devices are properly installed and maintained. [State – Federal – Local]
- Conduct studies to determine the average demands of exempt well use. [See Land-Use Action 6B]
- Determine how remote sensing technologies could help to better define water use in data-limited or problem areas. [WRD – Federal – Local]
- Encourage corporations in Oregon to participate in the Carbon Disclosure Project’s (CDP) Water Disclosure Project (see link below).

Comment on Action 2.B./Bulletin 2 *(Include action in IWRS, with modifications)*

1. The measurement strategy of the Water Resources Commission is not fully described in the bulletin. It should go beyond measuring 2,200 significant diversions. Implementing the strategy will only cover half of the diversions in Oregon, and may not represent a complete dataset.

ACTION 2.C. COMPLETE WATER RIGHT ADJUDICATIONS

Complete areas of the state that have not undergone the adjudication process, including reserved water right claims that still exist for tribal or federal lands.

Comments on Action 2.C. *(Include action in IWRS, with modifications)*

1. List the basins yet to be adjudicated, and mention that priorities will need to be established.
2. The cost of participating in adjudications is prohibitively high for individual users. Arrive at a place where an individual can participate in the process.

Bulletin 3: Understanding Oregon's Instream Needs

ACTION 3.A. COMPLETE OUR UNDERSTANDING OF FLOWS NEEDED TO SUPPORT STREAM FUNCTIONS

- Base Flow Needs Studies. Identify which streams already have these studies, then prioritize and complete those that are still needed and those that need updates. Base flows are the instream flows needed to sustain basic life stage functions and are important for maintaining habitat, scenic waterways, water quality, and recreational needs. [ODFW – WRD – DEQ – OPRD]
- Elevated Flow Needs Studies. Conduct studies on a basin-by-basin or on a project-by-project basis to collect information about the elevated flows needed to maintain and restore stream channel complexity and ecological functions. [ODFW – WRD]

Comments on Action 3.A. (Include action in IWRS, with modifications)

1. This action should be a "key" high priority action. Since Action 12.B. (pursue additional instream protections) is a key, high priority action, and is contingent upon implementing Action 3.A., it also needs to be a "key" concept. Additionally, to the extent the state may rely on this document to prioritize funding, it is important that 3.A. be a key concept.
2. Ensure that this action includes water quality, too.
3. Criteria to prioritize studies should be based on higher ecological value, storage presence, an increase in out-of-stream demands, or other pressures on the system.
4. Acknowledge what is known about instream flows. Many pending instream water right applications contain good information. State this as a positive in this section. It should also be included as a data gap-related action (Action 1.B).
5. Add municipal supply / drinking water as a need to support ongoing baseflow studies. Other consumptive uses should be part of the list as well.
6. Take a harder look at quantifying ecosystem services, including currencies around thermal benefits, fish values, and streams. A common currency is needed to quantify the ecological values over time. Not all habitats are created equal, and right now, collectively quantifying those values is not done adequately.
7. Define this action more clearly. "What's still needed and what needs updates..." means what? Does this mean that ODFW may need to update datasets? *Project Team Response: Some data may need to be updated (some data is 40 years old).*

ACTION 3.B. IMPROVE OUR UNDERSTANDING OF THE RELATIONSHIP BETWEEN GROUNDWATER & ECOSYSTEM NEEDS*

- Prioritize springs for further analysis, using U.S. Fish and Wildlife Service's 2011 inventory as a basis. Evaluate the cooling and water quality effects they have on spawning, downstream areas, and surrounding ecosystems. [WRD – USGS – ODFW]
- Categorize groundwater-dependent ecosystems statewide. [public and private sector]
- Complete WRD / USGS Groundwater Studies [See Action 1.B.]

* Build upon the work of ODFW's *Conservation Strategy*, ODF's *Forestry Plan for Oregon*, WRD/USGS Groundwater Studies, and the *Oregon Plan for Salmon and Watersheds*.

Comments on Action 3.B. (Include action in IWRS, with modifications)

1. List groundwater drinking water supplies in this action.

Comments on the Instream Needs Bulletin, Background Section:

1. The bulletin describes recreational fishing impacts on the economy, but just like the first draft of the IWRS white papers, it inexplicably makes no mention of commercial fishing. The livelihoods of commercial fishermen depend on clean, cool and adequate in-stream flows to support fish populations.

Bulletin 4: The Water & Energy Nexus

ACTION 4.A. ANALYZE THE EFFECTS ON WATER DEMAND FROM ENERGY DEVELOPMENT POLICIES

- A variety of policy drivers, including the Renewable Portfolio Standard, encourage the development of renewable energy sources in Oregon. Compare the effect these energy development policies have on water demand. [Universities]

Comments on Action 4.A. (Include action in IWRS, with modifications)

1. Include other significant projects in this action, such as biomass projects, both existing and proposed, as part of any study that analyzes the effects of energy development on water demand (i.e., converting the coal-fired Boardman Plant to cane).
2. Clarifying question - Does the Renewable Portfolio Standard look at everything, including biomass?
3. Clarifying question - Is this action limited to policy drivers only or projects as well?
4. Modify the second sentence to, “compare the effect of energy development policies and existing and proposed projects on water demand.”

ACTION 4.B. TAKE ADVANTAGE OF WATER INFRASTRUCTURE TO DEVELOP HYDROELECTRIC POWER

- Encourage the addition of power generation facilities to already-existing infrastructure (dams, pipes, canals, wells). This includes encouraging water right holders with certificated water rights to add hydroelectric capacity onto existing, durable, infrastructure. [State – Federal – Local]
- Engage with Bonneville Power Administration to gain access to unallocated water in the Columbia River when high flow events have exceeded spill maximums. [State – Federal – Local]

Comments on Action 4.B. (Include action in IWRS, second bullet removed for more work/discussion)

1. Does this include micro-hydro as a concept? *Project Team Response: Yes*
2. Legislation or rulemaking is likely required for this action (add the gavel symbol).
3. Confused regarding the meaning of this action. The action heading says “to develop hydroelectric power,” however, the bullet states the opposite, focusing on the water side of the equation.
4. This action includes no recognition of the effect on instream needs. Even though the water is “unallocated,” is there a need to leave water instream for fish?
5. This action is only good in an integrated strategy that has already figured out the appropriate balance between instream and out-of-stream uses. This action creates an incentive to divert water. At a minimum, a minimum flow should be established before diverting new water.
6. Change the second bullet. This is a much broader regional conservation that includes ODFW, the Columbia River Treaty negotiations, tribes, and upper basin states. Any solution should acknowledge that this is a broader discussion.
7. The Columbia River System is a good example of the hydro-wind nexus. Expect that these struggles will continue into the future. Growing plants for the Boardman biomass power facility will require more water. With an excess water year, more of Eastern Oregon will clamor for more water. Need active and vigorous representation in the Columbia River Treaty negotiations. The Columbia System needs to be addressed in a holistic way.
8. Put aside second bullet for further development (*two members commented*). It is not ready for prime time.
 - a. Lessen anxieties by cross-referencing to instream and out-of-stream actions, as well as Action 10.B. (transboundary agreements).
 - b. This action probably will not help. One high water year should not change Oregon’s policy on the Columbia River Basin, which requires input from several stakeholders. This is a complicated discussion.
 - c. The citizens of Oregon have spent a lot of money dealing with this issue on all sides.
9. Do not throw the second bullet away completely. It may be in the wrong spot in the strategy. It could be used for off-stream storage in high water years.

ACTION 4.C. INCREASE ENERGY EFFICIENCY AND RENEWABLE POWER PRODUCTION AT WATER AND WASTEWATER TREATMENT FACILITIES

- Encourage greater energy efficiencies and water efficient management practices at water and wastewater facilities, providing targeted training on Energy Management Best Practices to operators and supervisors. [State – Local]
- Promote Installation of biogas, solar, wind, and hydropower projects at water and wastewater facilities to offset power demands and utility costs on site. [State – Local]
- Promote development of “green” infrastructure facilities, to alleviate water and power loads at wastewater treatment facilities. Examples include natural wastewater and stormwater treatment systems, constructed wetlands, and habitat restoration. [State – Local]
- Set energy targets for water and wastewater treatment facilities. Start by developing a baseline of total energy use by water and wastewater utilities, which would include water transmission and treatment; treated water distribution; and wastewater collection, treatment, and disposal energies (not just energy use at the plant level).* [ODOE – Universities]

Comments on Action 4.C. (Include action in IWRS, with modifications)

1. Do not like this action. It is missing a cost-effectiveness component. This should apply to agricultural efficiency, too.
2. Setting “energy targets” (fourth bullet) is a high-handed and non-collaborative action. This is not for state agencies to tell us – everyone operates differently.
3. Pull the fourth bullet off for now.
4. Why call out water and wastewater systems as a target? Agriculture and others have energy issues too. Suggest taking a broader look.
5. When drafting this, staff looked for an opportunity to narrow or focus efforts, because it is not possible to do it all.
6. Look for opportunities to set targets or standards for conservation & efficiency for each sector; also move the concept to the water management section.
7. Some of these actions can be used for increased regulation. It is also true that they can promote creativity or an avenue for pursuing dollars. Not everything that is in this document should be viewed as punitive. It can be used to promote or encourage action.
8. Need to reflect that increased water efficiency can increase energy use.

ACTION 4.D. PROMOTE STRATEGIES THAT CONSERVE BOTH ENERGY AND WATER

- Partner with Oregon’s 10-Year Energy Plan to promote these strategies.
- Continue to implement and evaluate building codes that improve water and energy efficiency. In Oregon, these are the Statewide Mandatory Building Codes, the 2011 REACH Code, and the Statewide Alternate Method to Oregon building codes. * [DCBS – Local]
- Partner with water users to find and promote combinations of on-site water savings and energy production that can result in overall conservation savings. [State – Federal – Universities]
- Design energy efficiency programs that capture and publicly report water savings data, along with energy savings data. [Oregon Department of Energy – Energy Trust of Oregon – Bonneville Power Administration – Oregon Department of Agriculture – Infrastructure Finance Authority]

* These items are drawn from “Addressing the Energy-Water Nexus: A Blueprint for Action and Policy Agenda,” Alliance for Water Efficiency and American Council for an Energy Efficient Economy, May 2011.

Comment on Action 4.D. (Include action in IWRS, with modifications)

1. Add existing programs to this action, and better coordinating water and energy programs (e.g., the programs that are designed to save water and/or energy. Staff and technical assistance providers who promote saving energy by saving water are often unfamiliar with the state’s conserved water program. Programs that save energy via water efficiency do not usually keep track of how much water they save or

what happens to that water, and no effort is made to protect any of that water instream. Bringing together and leveraging incentives provided by energy conservation programs and the conserved water program would result in a more substantial benefit to the irrigator and to the environment.

Comment on the Water/Energy Bulletin, Background Section:

1. In the bulletin's discussion of conducting long-term water and energy planning, it states that moving from flood irrigation to drip irrigation increases energy demand due to the need to pressurize delivery systems. However, when systems are already pressurized, because either the irrigation district piped their canals or because the irrigator has to pump water from its source, increasing water efficiency results in substantial energy savings. In fact, many water efficiency programs are driven primarily by energy efficiency goals, such as the Energy Trust's irrigation efficiency incentives and the "Save Water, Save Energy" program offered by some BPA-affiliated energy providers.

ACTION 5.A. SUPPORT CONTINUED CLIMATE CHANGE RESEARCH EFFORTS

The state of Oregon should continue to collaborate with existing organizations, institutions, and researchers to improve climate change data and tools. [Federal – State – Local—Tribes]

- Continue and improve long-term monitoring of surface and groundwater resources (See Action 1.B).
- Improve real-time forecasting of water delivery, basin yields, monthly streamflow, flood frequency projections, and drought frequency projections.
- Downscale climate data (work largely residing with Oregon’s Climate Change Research Institute). Finer resolution will enable agencies to prepare to respond to climate changes on a more local scale.
- Collaborate with the Oregon Climate Change Research Institute and Pacific Northwest Climate Decision Support Consortium on basin-specific studies.

Comments on Action 5.A. (Include action in IWRS, with modifications)

1. Basin scale research is what is really important and needed. There is huge variation in this topic. Modify action title to say, “Support continued basin-scale climate change research efforts.” Anything short of basin-scale research is useless. With this change, this action is well linked to place-based strategies. It is okay to include “state-scale,” if needed.
2. Need to identify OWRD as an action agency on some of these strategies. The *Climate Change Adaptation Framework* does not identify OWRD as an “action agency” for Risk 1. The framework described a ninety percent or greater probability of the extinction of core populations of salmonids in Oregon due to rising air temperatures¹; however, there are no recommended actions or research needs listed to address this risk, leaving a huge gap in this action. To the extent that the IWRS is relying on that report, this needs to be addressed.
3. Add the risk to salmonids to the background section of the bulletin. Add some language about extinction in Action 5.A., taking a more holistic approach.
4. Need more specifics in Action 5.A. and Action 5.C. Need to identify protection, restoration in riparian zones and functioning alluvial floodplains, in order to protect salmonids. This is a very actionable item.
5. An adaptation strategy that relates to flow restoration and protecting cold-water refuges is needed, whether it is a cold stream going into the Columbia system or a groundwater dependent ecosystem.

ACTION 5.B. DEVELOP CLIMATE CHANGE SCENARIOS/MODELS

- Climate Ready Water Utilities (CRWU). Support and promote the U.S. Environmental Protection Agency’s CRWU program, a resource for water providers to develop and implement long-range plans that account for climate change impacts. See <http://water.epa.gov/infrastructure/watersecurity/climate/index.cfm>.
- Analyze crops needs and water rights. Determine the likely evolution of crops under various climate change scenarios in Oregon. Determine changes in growing seasons and water needs, by updating Oregon’s 1999 *Crop Water-Use and Irrigation Requirements* report (See <http://extension.oregonstate.edu/catalog/pdf/em/em8530.pdf>). Compare how those results do or do not match with existing water rights and junior water users. [ODA – OUS - WRD]
- Develop basin-specific scenarios, illustrating the impact of climate change on future water use and water availability. Show how climate change could affect the ability to access water when it’s needed, and sketch out alternatives.

Comments on Action 5.B. (Include action in IWRS, with modifications)

1. Move the third bullet to the first bullet in this section.
2. The bulleted items suggest determining agricultural needs under climate change scenarios. It should also include determining streamflow needs.

¹ Editor’s Note: To clarify, the Adaptation Framework states that rising air temperatures are “very likely” to increase in the future. However, it does not state that it is very likely for any one effect to occur. The Water Resources Department has identified several actions within the Framework to address various risks related to drought, changes in hydrology, etc.

ACTION 5.C. ASSIST WITH CLIMATE CHANGE ADAPTATION STRATEGIES

- Help restore and protect wetlands, uplands, forests, and riparian zones to increase the capacity for natural water storage.
- Integrate water resource and land management in a way that helps Oregon prepare for natural disturbances, particularly sea-level rise, storm surges, flooding, landslides, wildland fires, etc. Include sensitivity analyses and risk-based planning in city and county comprehensive plans for consideration in state and local permitting processes. Partner with emergency preparedness community and potential funders, including public health and safety interests. [State – Federal - Local]
- Provide assistance to water users to increase storage capacity, water conservation, reuse, and efficiency.

Comments on Action 5.C. (Include action in IWRS, with modifications)

1. Comments on Action 5.B. also pertain to Action 5.C.
2. First Bullet:
 - a. Include an adaptation strategy for flow.
 - b. Rephrase to, “increase the capacity for natural water and carbon storage.” This connects to the energy water conversation.
 - c. Alluvial floodplains need protection, too.
3. Second Bullet:
 - a. Add “drought” to the list of natural disturbances.
 - b. There is an effect on the natural system and an effect on infrastructure. In the water sector, preparing for natural disturbances is often discussed in terms of resiliency, identifying the interconnectedness of water systems and determining whether there is adequate storage to take advantage of more intense rain events. This bullet should be split into two points, with the second part expanding the concept of resiliency, asking the question, “What must be done when climate change actually happens?”
4. Third Bullet:
 - a. Add biologically driven targets and tools to this bullet, or as a new one. Because large and small water years are managed differently, more biologically driven water management is needed.
 - b. Agree, but would add more. That is a water management issue. Move the third bullet (including resiliency point) off to water management, placing it in the context of other actions and even more tools. Do not pre-judge what your solutions are in this part of the document.
 - c. Keep resiliency in Action 5.C, it is an adaptive strategy. It should reside in the Climate Change Bulletin.
 - d. The main key is to help water users adapt, which is called out in HB 3369. Need to keep the whole picture together.
 - e. Why limit the third bullet to increasing “storage capacity, water conservation, reuse, and efficiency?” So many other actions could be added here. Suggest changing to, “Assist water users with climate change adaptation strategies,” emphasizing assistance, rather than solutions and cross-referencing to other actions.
 - f. It is helpful to have the strategies mentioned here, so that folks are thinking about these things in the context of climate change. It is a good place for cross-referencing.
5. The Governor is engaged on this issue as part of the Western Governor’s Association; however, there is little agreement on even the terminology. Frame this as taking action because some watersheds have already lost their resiliency, habitat, etc. These actions are needed already, regardless of what you think about climate change. It is a jobs driver as well. There is no need to research this to death; the pathways are clear. What do you do about hard-infrastructure / storage? What will that look like? What is the best bang for the buck?

Bulletin 6: The Water & Land-Use Nexus

ACTION 6.A. ENSURE THAT LOCAL GOVERNMENTS HAVE ACCESS TO DATA NEEDED FOR DECISION-MAKING

- Develop and share information regarding the location and available quantity and quality of water resources, particularly groundwater. Provide this information to land-use planners. Fund the collection and dissemination of such data. [State – Federal – Local—Tribes]

Comments on Action 6.A. (Include action in IWRS, with modifications)

1. Remove the funding-related sentence. Funding is needed everywhere.

ACTION 6.B. DEVELOP LAND-USE SCENARIOS / MODELS

- Sourcewater Protection Scenarios. Identify land critical to the long-term management of Oregon’s drinking water resources. Develop rules associated with land development that could impinge on the ability of that land to protect sourcewater.
- Identify the potential effect of stricter requirements for land practices to protect water resources (protecting wetlands, forestlands, floodplains, etc.) on the available stock of developable land.
- Identify water-related ecosystem services; determine the economic benefits and market value of these services. [See Action 11.D].
- Conduct studies to determine the number and location of historic exempt use wells and average water usage per well. Use this information to help inform local land-use decisions [see Action 2.B].

Comments on Action 6.B. (Include action in IWRS, with modifications)

1. Legislation or rulemaking will likely be required to implement this action (add symbol).
2. Action is lacking a link to existing state programs (e.g., sourcewater protection scenarios for groundwater).
3. There is a strong disincentive to transfer water instream temporarily or permanently because it can jeopardize an individual’s farm-deferral status. There should be an exemption allowing instream transfers in flow-limited reaches.

ACTION 6.C. FULLY INTEGRATE WATER INFORMATION INTO LAND-USE PLANNING (AND VICE VERSA)

- Help local governments integrate information about water availability into land-use decisions and plans, including Capital Improvement Plans, Water Management and Conservation Plans, and other local water provider plans that may help inform land-use decisions. [WRD – Local]
- Recognize the role of forest land in protecting watersheds and drinking water supplies; strengthen the limits on forest land conversion in Statewide Planning Goal 4. [DLCD]
- Help local governments integrate water quality information into land-use decisions. More specifically, emphasize Oregon’s Statewide Planning Goal 5 to protect public drinking water sources, wetland, and riparian corridors, by completing land-use planning at the local level. [DLCD-OHA-DEQ-DSL]
- Develop rules to implement Statewide Planning Goal 6. Although Goal 6 directs local governments to consider the effects of land-use on water quality, it does not contain details about how to address water quality concerns when making land-use decisions. Build a coalition of non-governmental organizations, agencies, water providers and others to serve as a rule-making advisory group. [DLCD - DEQ]
- Ensure that State Agency Coordination Agreements with the Department of Land Conservation Development are up-to-date.
- Improve location information of Underground Injection Control Systems (UICs) to prevent conflicts with future well development. Improve existing UICs to protect groundwater quality. [DEQ-WRD]

Comments on Action 6.C. (Include action in IWRS, with modifications)

1. Some permitting decisions are completed in sequence, rather than simultaneously. From the developers’ perspective, this slows down projects. Allow state agencies to proceed with providing advice and information to the municipality, while also providing the necessary information under Goal 6, in order to help local governments move forward.

2. Integration and simultaneous processing are important. Senate Bill 766 is supposed to help this occur on the industrial level, which should provide a learning opportunity.
3. Use common platforms to get to simultaneous decisions.
4. Existing exempt-use well rules offer a loophole for new residential subdivisions. In groundwater challenged areas, such as the Deschutes Basin, these loopholes ought to be closed. This is a water-use, land-use issue.
5. Add an action aimed at compiling information on low-impact development (LID) policies in cities and counties across the state.
6. Add an action aimed at providing technical assistance to help local governments update their development codes to encourage and remove barriers to low-impact development, and to improve their ability to review and permit green infrastructure facility designs, with DEQ as the lead agency.
7. Add an action that expands implementation of the state's phase II Municipal Separate Storm Sewer (MS4) permits to include all cities with populations of at least 20,000. Research finds that 30% of the state's population lives in incorporated cities that have no stormwater oversight from state agencies. See OEC's Report "Stormwater Solutions: Turning Oregon's Rain Back Into a Resource," page 17.

Comments on the Land-use/Water Bulletin, Background Section:

1. Add another bullet to the "areas of chief concern" (page 28 of bulletin): The way urban and rural-residential development occurs can have a significant impact on stream flows and water quality. While some cities require low-impact development practices that capture stormwater onsite in order to protect streams and groundwater from runoff, these practices are not required across much of the state where new development is occurring.
2. Add this report to the list of online resources: Urban and Rural-residential Land Uses: Their Role in Watershed Health and the Rehabilitation of Oregon's Wild Salmonids.
<http://www.fsl.orst.edu/imst/reports/2010-1.pdf>.
3. FEMA floodplain conversations are underway with the insurance industry and may redefine developable land. Note this issue, litigation, and statutes in background section of the Strategy.

Agenda Item V, Review of the Draft Recommended Actions, *continued*

Following a BBQ lunch, sponsored by the Oregon Water Utilities Council, members continued discussing the draft recommended actions (Actions numbered 7 through 12). Comments are reflected on the following page.

Bulletin 7: Water-Related Infrastructure

ACTION 7.A. ENCOURAGE REGIONAL (SUB-BASIN) APPROACHES TO WATER AND WASTEWATER SYSTEMS

- Evaluate land-use goals, regulatory and funding programs, to identify and remove barriers that prevent the development of regional water and wastewater systems. Regional systems could include physical consolidation, or shared contracts, services, purchases, etc. [State - Local]
- Provide incentives for “regionalizing” water and wastewater infrastructure, by ranking grant and loan applications more favorably when applicants are part of a regional effort. Provide grants and loans specifically for the purpose of regionalizing. [State – Federal]

Comments on Action 7.A. (Include action in IWRS, with modifications)

1. Excellent action, it should also include incentives. Score regional efforts higher when they are part of a regional water management strategy that addresses both instream and out-of-stream uses.
2. This action is categorized under “infrastructure.” Is this second bullet in the right place? Should it be found under funding? The previous comment broadens the concept out a bit more.
3. Legislation or rulemaking may be required (add symbol).
4. Very pleased to see a regional approach in here. Please add an ecological screen to these projects. There should be some sort of net ecological benefit to these projects.

ACTION 7.B. DEVELOP AND UPGRADE WATER AND WASTEWATER INFRASTRUCTURE

- Use an “asset management” approach to rehabilitate or replace infrastructure that no longer serves its purpose.
- Upgrade facilities to address emerging contaminants and growing populations.
- Ensure that basic maintenance (fixing leaks, replacing wooden pipes, measuring, automating) are counted in the definition of “green infrastructure” so that these projects can continue to compete for grant and loan funding.
- Recapitalize the state’s Special Public Works Fund, to continue providing low interest loans and grants to partially offset capital costs.

Comments on Action 7.B. (Include action in IWRS, with modifications)

1. Identifying the local agencies as lead agencies is missing from this action. Was this intentional? Second bullet should contemplate the use of *natural systems* to augment or meet compliance.
2. Regarding bullet three, basic maintenance is not the same as green infrastructure. Incentives for green infrastructure are designed to encourage innovation. The majority of project funding still goes to conventional projects that are not “green infrastructure,” so it is inaccurate to imply that conventional projects cannot compete. An alternative would be to recommend that grant and loan programs should prioritize funding maintenance of existing systems when that is more cost-effective than building new systems. That would achieve the intended goal without misguidedly creating an inaccurate definition of green infrastructure.
3. Green infrastructure is defined by U.S. EPA. The basic maintenance needs that serve as a foundation are not included with green infrastructure funding.
4. Listing “natural systems,” would not make it a requirement, right? *Response: Correct.*

ACTION 7.C. IMPROVE DAM SAFETY

- Evaluate the impact of potential dam failure on water supply systems. 
- Encourage efforts to evaluate and retrofit Oregon’s dams in anticipation of seismic events, aging, and other conditions. Resources are needed to conduct seismic evaluations that will identify deficient structures.
- Consider anticipated changes in low-frequency flood events, due to climate change predictions, in the design of spillways for existing dams. Resources are needed to conduct a statewide evaluation of problematic structures.
- Encourage the development of emergency action plans (EAP) for all high hazard dams in Oregon. Thirty-two percent of high hazard dams in Oregon have no emergency action plan, which is a predetermined plan of action to be taken, including roles, responsibilities and procedures for surveillance, notification and evacuation, to reduce the potential for loss of life /property damage in an area affected by a failure or mis-operation of a dam. Partner with emergency preparedness community.

Comments on Action 7.C. (Include action in IWRS, with modifications)

1. If thirty-two percent of high hazard dams in Oregon lack an emergency action plan, how dangerous is that to Oregon communities? Determining how to prioritize which public health and safety actions to tackle first is important.
2. OWRD and DOGAMI should be identified as lead or coordinating agencies.

Comment on the Infrastructure Bulletin, Background Section:

1. In the discussion of IFA funding resources, add the Clean Water State Revolving Fund.

Bulletin 8: Education and Outreach

ACTION 8.A. PROVIDE IMPROVED PUBLIC ACCESS TO INFORMATION

- Water Education and Training Program. Develop a statewide “Water Education and Training” Program, providing free, water quality and water quantity information to the public in a variety of formats. Partner with the private sector, OSU extension, universities, tribes, watershed councils, soil and water conservation districts, watershed councils, all levels of government, non-governmental organizations, and industry associations. This would constitute a broader effort, with more real-time data and policy information than K-12 curricula produced at the national level. [State – Local – Tribal – Private Sector Partners]
- On-Line Water Information Center. Under a “Water Education and Training Program,” launch an on-line water information center with links to local, state, and federal water resources. Make databases searchable and extractable. Scan and post public documents. Translate “raw data” to “useful information” for the public and for decision-makers. Include information about best management practices, available grants and basic water curricula (i.e., the water cycle and the importance of conservation), as well as “ongoing research needs,” with questions that students in K-12, college, and graduate levels could assist with.
- Marketing the Value of Water. Under a “Water Education and Training Program,” reach audiences through public broadcasting, newspapers, advertisements, community meetings, and electronic media. Start with a baseline survey of public knowledge. Use simple terminology. Encourage local journalists to write water articles. Conduct a “Celebrate Oregon’s Waters!” campaign. Use the Water Trails Program at Oregon Parks and Recreation Department to increase access to water-related recreational opportunities and promote interest in protection of water resources.
- Focus on issues where individuals can do something to make a difference: pharmaceutical take-back, non-point source pollution prevention, water conservation, etc.
- Provide domestic well and septic system owners with information about testing / monitoring, treating for contamination, technical resources, and funding.

Comments on Action 8.A. *(Include action in IWRS, with modifications)*

1. Add water quality and the ecology of watersheds to the list of education topics (and within the bulletin).
2. Include building local capacity for water conservation and instream flow restoration as an action.
3. Add farmer-to-farmer tours to teach water conservation techniques.
4. Need to identify the target audience and the education that is needed. The Farmer-to-Farmer tours are specific and helpful. The public may only be interested in “savings.” Depending on which audience is targeted, it is important to think about why they would care and what they would get for it. Tighten up the language for the action, identifying who to target, what their interests are, and determine how to reach them.
5. Agriculture is the second leading industry in Oregon. The public needs to understand the importance of what is produced with water use. Although agriculture uses eighty-percent of diverted water, much of it returns to the stream. Certainly, there is room for improvement in efficiencies, but you need to be careful about the information shared with the public.
6. The word “marketing” in the third bullet is a poor word choice. Consider using the term “describing” or “explaining.”
7. In reference to the third bullet, local journalists do not write water articles. You will have to write articles and send them in.

ACTION 8.B. ENCOURAGE THE NEXT GENERATION OF WATER EXPERTS

- Build a corps of experts in engineering, hydrology, hydrogeology, water law, farming and irrigation techniques, and other technical specialties. Smaller communities have a growing need for water and wastewater treatment facility operators, and other expertise.
- Provide technical training to soil and water conservation district staff, watershed councils, public agency employees, irrigation district managers, etc.
- Offer internships, fellowships, and other opportunities for exposure to careers in water.

Comments on Action 8.B. (Include action in IWRS, with modifications)

1. Support funding for the Oregon Environmental Literacy Plan. Under this plan, students graduating from high school should be environmentally literate.
2. Are there community college programs and technical training schools that should be supported? License or certificates that should be encouraged?
3. There have been efforts to partner with community colleges that work with water customers in water efficiency, water conservation, and landscape design. Designing green infrastructure needs to be done correctly, to avoid creating create bigger problems. Tout the certification programs.

The PAG was not asked to reach consensus on the draft recommended actions for Bulletin 9, "Funding." Based on member comments, the Project Team committed to revising the actions for members to consider during the November 2011 PAG meeting.

Bulletin 9: Funding the Development & Protection of Oregon's Water

ACTION 9.A. ESTABLISH A WATER MANAGEMENT FUND FOR THE STATE OF OREGON

- Establish a water management fund with public and private funding sources. Use this to fund state natural resource agencies at a level to ensure state oversight, management, and technical assistance related to water resources. Funding sources could include the General Fund, lottery dollars, federal funds, a water rights management fee, wastewater fee, or other sources.
- Dedicate monies to state water management (including data collection and applied research, operational costs, and funding reserves for drought or other emergencies).

Comments on Action 9.A.

(No specific comments were made on this action, see general discussion points on the following pages.)

ACTION 9.B. CAPITALIZE FUNDS FOR LOCAL WATER PROJECTS

- Capitalize a number of already-existing water related grant funds ("OWSCI Planning Grants," "SB 1069 Feasibility Study Grants for Water Conservation, Reuse and Storage," "HB 3369 Implementation Grants," and "OWEB Grants") that encourage public benefits.
- Capitalize loan programs that provide low interest loans for water development projects.

Comments on Action 9.B.

1. The acquisition of water from willing sellers could be mentioned under this action. These actions will need to become more specific. The first, basic step is rebuilding staff and their functions (data production, enforcement, etc.). Although it may be dangerous adding specifics, this section needs more urgency to convince decision-makers that they need to make investments in agencies that manage the state's natural resources. The agencies are doing themselves a disservice by making things look better than they are.
2. Generally, agencies need to have a platform to launch the actions. Seek funding for basic agency capacity. Until basic agency capacities are adequate, which many agencies are still shy of, funding for other projects should be considered a lower priority. Adequate agency funding for the Water Resources Department should be of higher priority than funding of SB 1069 and/or HB 3369 grants/loans.

ACTION 9.C. COORDINATE STATE AND FEDERAL FUNDING PROGRAMS

- The state and its partners should make investments in water resource planning, data, protection, and restoration using a more strategic and coordinated watershed approach. The Bureau of Reclamation has competitive basin-studies grants available for these activities. [see Action 10.C].
- Show applicants, at-a-glance, various funding programs available for water-related projects.
- Agencies should review the schedules and application criteria for state grants to determine if dates, forms, or criteria could be modified to facilitate a streamlined approach through reduction of duplicative efforts. Communities are spending too much time chasing water and energy-related dollars with slightly different criteria and requirements.

Comments on Action 9.C.

1. In Action 9.C., legislation or rulemaking would not likely be needed (remove symbol).
2. Streamlining duplicative efforts may require legislative action.
3. For the second bullet, it is unclear what is meant by "show applicants". Who would show applicants? Which applicants? This bullet is likely hinting to the need to establish a coordinated clearinghouse of information about available funding programs and incentives.

Along with offering comments on the funding actions shown above, members entered into a broader discussion of funding, from communicating the need for funding natural resources agencies to offering new funding strategies or approaches to consider. The discussion points are noted below.

Question:

1. How is the state of Washington's project going? Would like to hear how the different stakeholders in the state think this is going. The staff could get an update report from Washington.

Other Funding Models or Approaches to Consider:

1. Cannot support a water rights management fee, unless the specifics are convincing.
2. The League of Women Voters is supportive of a water rights management fee. The problem with implementing such a fee has always been that there are data gaps within the water rights database. Also, the League does not support recovering more than 50% of costs.
3. Maryland's Chesapeake Bay Protection Fund is supported by municipalities and private septic system owners who pay a small monthly fee with their water bill or as part of their property tax. The revenue goes into a common fund and a formula partitions funding, in part, toward agricultural practices. Maryland is largely interested in protecting against nitrates. Maryland's funding structure emphasizes the concept of fairness. The benefits also go to municipalities and residents who have septic systems. It is possible to structure a funding program in a fair and equitable manner.
4. Consider a real estate transfer tax. Tie the cost of new people coming into the state to serving them with municipal water supplies and agricultural products.
5. Consider a public purpose charge, similar to what is done at the Energy Trust of Oregon.
6. Consider a water-efficiency tax credit.
7. Conservation groups working in Washington on instream projects receive funding from the state and the Bonneville Power Administration and it seems to be working relatively well.
8. Establish a dedicated funding source for non-point source pollution prevention efforts. The fund would support pollution reduction efforts from urban and rural lands. It would expand upon limited federal 319 grant funds. Potential funding sources might include a fee on certain chemicals that commonly contribute to non-point source pollution.
9. End the practice of legislatively "sweeping" fee revenues from agency budgets. When the legislature sweeps dedicated funds into the General Fund, away from their statutory purposes, it undermines public trust in government and inhibits state agencies' ability to achieve their missions. Ending sweeps is supported by the environmental community and by water user groups who pay fees.
10. Legislative sweeps on funding also undermine cost efficiency, as agencies will spend funds to avoid having those sweeps.
11. During the last legislative session, the Governor proposed funding the state's Safe Drinking Water Program directly through fees. There must be a rational nexus between a fee/tax and the service proposed. While municipal users may be nice juicy targets, the folks running the water systems need the money themselves. Need to ask whether this approach is reasonable or fair. Do not put a fee on large water systems in order to pay for activity at small systems. Be careful about reducing General Fund budgets for water; the General Fund does need to pay for public benefits. Many municipalities were supportive of a water rights maintenance fee. Wastewater fees are in there too, and will be the subject of comments from the City of Portland, Bureau of Environmental Services.
12. Water rights are a public good. Although General Funds have been cut, agency-related fees have been increasing while the industry is under increasing pressure. When fees are all thrown together, it becomes too much. Make it a general fund tax and make it fair to everyone, not just on the backs of farmers.
13. Approach natural resource agency budgets as a "block." This is critical, considering the General Fund is declining and other sources, such as the Pacific Coast Salmon Recovery Funds, are not stable. The cuts among natural resource agencies have not necessarily been proportional. Weakening any one agency also weakens an integrated effort.

14. Make a strong connection between the fee & its service. This is something the Governor's Office can help with. The funding argument must move beyond "let us have more."
15. Shouldn't funding for education, public safety, and public health be in better shape first? Be blunt about stating that part of the problem is the dysfunctional tax structure in this state. Fixing the systemic problems must occur before moving on to anything else.
16. The Governor is doing just that through the creation of a public safety task force, new education ideas, and other initiatives. However, difficulties will always remain when needing to address ninety legislators about the importance of data collection and other various activities.

Setting Funding Priorities

1. An important next step is to look at our activities around water. Prioritizing these activities and looking at how agencies are connected are playing out right here. Funding will become easier once our goals for good government are better described. The IWRS will allow us to shore up our agencies and budgets.
2. When completing prioritization, please also consider the political realities and opportunities. Measure 76 happened because the public saw their favorite parks closing. A conversation with the public must take place in order to obtain the appropriate funding sources.

General Comments Regarding the Funding Bulletin:

1. On the first page of the document, consider removing the third statistic.
2. The disinvestment of core staff is missing from the graph.
3. The text does not match the bar graph. Federal dollars seems to be increasing, and it does not make sense to show as a cost-match comparison.
4. Add to this section something specific to funding "protection" of Oregon's waters. While the word is in the heading of the bulletin, the text of this section is not clear on how this would be included or achieved.
5. Strive for rough parity between instream and out-of-stream funding.
6. Natural resources provide huge economic benefits, with very little financial input. The bar graph does not depict shift in funds to lottery, federal funds, and other sources that may not be stable. Keeping it like this is possibly misleading. Substitute text with newer post-2011 legislative materials.
7. This bulletin and its actions focus mostly on funding for managing water quantity. Funding is also needed for non-point source pollution prevention. This big sticky issue has been difficult to tackle in Oregon. There are permits for point sources, but non-point sources are largely voluntary. Could you integrate these programs, or just talk about funding them separately? You should plan a white paper for release in November.
8. This funding discussion has been underway for years. The information on the first page of the bulletin came out of a collective effort between natural resource agencies and their stakeholders. Before the 2011 session, all of the natural resources agencies comprised one-percent of the state's General Fund budget. In every conversation, folks make the case "the general public should be paying for this." The fact of the matter is – natural resource agencies keep losing portions of the General Fund budget. Agencies posed the question to stakeholders to completely get off the general fund. Stakeholders disagreed and made a case to the Legislature that natural resource agencies need more General Fund. They agreed; however, our agencies still went down about \$120M in this session.
9. Add to the Online Resources: USDA Environmental Quality Incentives Program (EQIP):
<http://www.or.nrcs.usda.gov/programs/eqip/>

The Policy Advisory Group was not asked to reach consensus on the draft recommended actions for Bulletin 10, "Place-Based Approaches." Based on member comments, the Project Team committed to revising the actions for members to consider during the November 2011 PAG meeting.

Bulletin 10: Place-Based Approaches

ACTION 10.A. ENCOURAGE A REGIONAL (SUB-BASIN) APPROACH TO WATER AND WASTEWATER SYSTEMS [ACTION 7.A]

- Evaluate land-use goals, regulatory and funding programs, to identify and remove barriers that prevent the development of regional water and wastewater systems. Regional systems could include physical consolidation, or shared contracts, services, purchases, etc. [State - Local]
- Provide incentives for "regionalizing" water and wastewater infrastructure, by ranking grant and loan applications more favorably when applicants are part of a regional effort. Provide grants and loans specifically for the purpose of regionalizing. [State – Federal]

Comments on Action 10.A./Action 7.A.

(See comments listed on page 17)

ACTION 10.B. PARTICIPATE IN TRANSBOUNDARY AGREEMENTS

Continue to participate in Transboundary efforts related to water management and long-term planning. These include the Columbia River Treaty, the Klamath Basin Restoration Agreement and its related work groups, and Oregon's Territorial Sea Plan.

Comments on Action 10.B.

(No specific comments were made on this action during the discussion of place-based approaches. However, members did mention the importance of participating in the Columbia River Treaty negotiations as part of the water-energy discussion under Action 4.B. – see page 10).

ACTION 10.C. FACILITATE REGIONAL (SUB-BASIN) WATER RESOURCE PLANNING

This Strategy provides an opportunity to pursue a more integrated approach, when it comes to protecting, sharing, or developing water resources at the basin and sub-basin level. Recognizing the value of both "bottom up" and "top down" approaches, developing water resource plans with local, state, and federal partners at the table will ensure that the best of both processes are utilized. These plans should integrate water quantity, water quality, and ecosystem issues.

Ways the State can help:

- Provide a framework for local basin planning.
- Help coordinate each basin or sub-basin that wants to take this approach.
- Share basin-level data gathered by local, state, and federal partners in an on-line format.
- Establish incentives, including grants, for communities to conduct this planning at the basin or sub-basin level. (The Bureau of Reclamation also has competitive basin-studies grants available for these types of activities.)
- Identify permitting, funding, or other management issues that would be ripe for simplifying or streamlining.
- Conduct a pilot project at the basin-level that clearly identifies a water resource need, and then brings together partners, funding, and technical assistance / programs to address this need.

Regions should use the following tools and ideas:

- Conduct an assessment, determining whether land-use laws, regulations, or ordinances are getting in the way of regionalization efforts.
- Determine needed improvements in water-use efficiency, water quality, public health, and ecosystem protections.
- Use scenario planning as part of the decision-making process.
- Consider data modeling to facilitate decision-making at the local level.
- Use adaptive management; re-visit assumptions periodically.
- Account for economic values and impacts of intact/healthy watersheds. Provide incentives for protection.
- Identify sources of water (freshwater, recycled water, stormwater, etc.). Conduct assessments, matching reclaimed water quality to end uses (e.g., flushing or irrigating with non-potable water).
- Identify demands for water.

- Consider conservation pricing (define and charge “full cost,” not flat rates for water).
- Consider water sharing between communities.
- Commit to implementation as part of this process.
- Document and publicize best water management practices in the basin.

Regions and localities may want to ask themselves the following questions to jumpstart planning:

- Define your water needs and water quality levels of those needs. Whose wastewater could you use?
- Define your wastewater streams and their water quality levels. To whom could you deliver your wastewater?
- How many times could you use water before returning it to the environment?
- Identify the most critical wetlands in your region. Prioritizing their protection creates a market / credits system.
- What ecosystem services could this community provide? What revenue would such an ecosystem service need to generate in order to help it stay in place?

Comments on Action 10.C.

(Members discussed a variety of concepts related to regional water resources plans. The Project Team has organized member comments under the following headings).

Institutional Capacity and Existing Institutions:

1. Define how this relates to existing basin plans.
2. Define how this relates to soil and water conservation districts and watershed councils.
3. Define the different boundaries used by various agencies, in terms of what keeps them in place, and whether or not it is possible to adjust them.
4. Stimulate those organizations that already exist, taking advantage of what is already there. If the need for institutional capacity at the local level is not acknowledged, then state policies have nowhere to live, breathe, or be vetted. Institutional capacity will take funding. The Ruckelshaus paper, “Managing Many Waters,” drills into the overlapping roles, responsibilities, and redundancies occurring between state and local efforts that waste a lot of time. Do not be afraid to merge local groups either and think about it from a different perspective.
5. Need to make sure that data collection is part of a place-based approach.
6. The management of the U.S. Umatilla National Forest needed local collaboration and the institutional capacity to deal with forest issues. Federal forests are part of the water quality and fish protection equation. This presents a great opportunity for partnership. Pursuing place-based approaches requires identifying the sideboards and outcomes. Do not be constrained by today’s statutory box because there is still an opportunity to make adjustments. Ensure that there are ways to re-examine how water is managed when expected outcomes are not being met. Think big on this.
7. Trying to create a completely new scheme is doomed to fail. Surprised to see no mention of TMDLs as part of a place-based approach. If a TMDL is done well, it is comprehensive. TMDL’s are also developed on a basin scale. With a bit of re-thinking, it could be a lens to look at water quality and water quantity issues. It is not too ambitious - TMDL’s have to be completed anyway. Use that as a launching point for coordination with other agencies.
8. TMDLs are a great place to start.

Different Goals, Need for Sideboards and Standards:

1. Ask regional groups to describe how they would, over time, meet the instream and out-of-stream goals and fit into the IWRS. Do not give us the \$2.6 billion solution; instead, give us something implementable. There are too many grandiose ideas out there that throw a lot of money at a problem. Use a lens that asks which approaches move us further at the least cost. Create incentives, conditions, and expectations.
2. The goals are different around the state. Local solutions often treat the water as though it were a local asset and not a public benefit. Obviously, basins are different in terms of politics and hydrology. The Department needs to take a leadership role. The IWRS should not end up with a series of balkanized standards around the state. Preserve public access to the process.

3. Do not devolve to a pilot study or three pilot studies. Washington put a lot of money into three pilot projects, and it did not help the other communities.
4. The lack of standards is concerning. The point of water management is not to figure out how to use up all the water, but to figure out ways to use it smartly. Some tailored pilot projects, with sideboards, can lead to generating a water budget. Find ways to pull in communities. The Governor's office could take a leadership role on this, identifying the types of projects and progress that should occur.
5. This concept is key and a top priority. During earlier Policy Advisory Group discussions, the complexities and few resources were often cited as the barrier to forward movement. I think Action 10.C. is phenomenally good. Providing a framework for local basin planning should have identified sideboards. Local groups should not apply if they are not willing to comply with the law and include a public process. This is the place where many of the other bulletins and actions can happen. This is the nested concept that the PAG has been talking about.
6. TMDLs are only a piece of what should be accomplished through a basin approach. DEQ has started to take a watershed approach by integrating DEQ programs for prioritizing work in each basin. There is a need for strong partners, clear communication, dedicated resources, flexibility and freedom to work within individual basins. Need to address needs holistically: water quality, water quantity, and ecosystem needs.
7. Identifying the sideboards is necessary. Start with state laws. The hard part is having everyone be involved who needs to be. The state's role will be to ensure all parties are represented.

Ways the State can Help:

1. Define how the state agencies will motivate basins to undertake a planning process. For example, are there some incentives or benefits that would only be available for projects that are part of a basin plan? What kind of public involvement would be required for developing a basin plan?
2. The structure should create an incentive to bring folks to the table. If they see a big benefit at low cost, then it creates an incentive to participate in the process. The big thing that is missing, which the State can help with, is coordinating the analytical capacity: how do you choose which water management approaches to use - in what combination, and for what cost? Need to understand the impacts of our decisions on agricultural users, cities, and fish. One approach may have a negative impact on temperature or other variables. How do basin stakeholders identify and choose among alternatives? Local entities cannot make these decisions themselves. State and federal cooperation will be huge, saving on resources and time.
3. Good point about the State's role. As stated earlier, this action should not be limited to a few pilot projects. The State can lead the process, and local groups can pick up from there. In addition to sideboards and outcomes, note what rewards and benefits a regional group would be eligible for if they participated.
4. Incentives can be more than just financial incentives. That State's role could be a unified voice for identifying "next steps." Some groups do not necessarily want only money. Instead, some groups want to know what must be done collectively to make this happen.

Integration:

1. A bulletin devoted to improving the integration of state agencies is missing. The effort should start with a memorandum of understanding that identifies who pays and when. Put more energy into this.
2. At the last PAG meeting, describing integration separately was discussed and it seemed more worthwhile to make sure integration was threaded throughout all of this work.
3. This whole discussion sounds a lot like Oregon's land-use system.
4. Look at basin planning differently by allowing the basins to define the goals.
5. In some instances, the land-use system has had a bad reputation, but it has been successful, too. The part of the land-use system most problematic has been the legal system, which may not be avoidable. This is the public's water and there are certain things that should happen. Local governments should help

manage water. The State has an interest in certain outcomes. Within geographies, folks have a right and opportunity to figure out the best approach.

Data and Information:

1. Do not study this to death. Instead, use laboratories to complete the work. State laws are not uniformly observed and because of this, there are many unknown, unseen, unreported activities occurring. It is foolish to think Oregonians will practice environmentalism, agriculture, and other approaches the same way into the future. Tinkering and piloting with ideas will allow us to see what works.
2. Any regional effort must start with data collection.
3. Establish a good baseline of information, to the extent possible, but also get started on actions that move us in the right direction.

Defining a Place-Based Approach:

1. Define what is meant by, "Regions should use the following tools and ideas..." For example, does this mean running wastewater service lines outside of the urban growth boundary?
2. The summary in this bulletin and its actions is too glib. What does it all mean? Does it mean tweaking temperature standards for fish because they are getting in the way of a project? If so, then our organization is not on board with this. It is unclear what changes would be necessary at the state level in order to make this happen on a broader scale. It is unclear what precisely is being proposed under these actions. Actions 10.A. and 10.C. cannot be supported as is. What are the sideboards? How will the state protect public access to the process? How do you protect the public interest in the water? What would the instream elements / requirements be? Is this just about creating new water storage?
3. Encouraging local efforts should not be used as an excuse to diminish state protections. If state agencies spelled out the stated protections that would be needed, would you approve of this concept?
 - a. Currently, the concept sounds like a lot of flexibility and streamlining, but it is not clear where that leads. What is meant by "net benefit?" Will one species lose in comparison to the other? Seems very loose.
 - b. Providing more detail is needed; definitely, no diminished protections. Net benefit means "net instream benefit." A currency to make informed decisions is desperately needed. Some tributaries are more important than others are. Need more science. Those tools are coming online now. This is not carte blanche, and it needs to be set up correctly.
4. It is not clear where this entire document may lead. More details are needed in everything discussed today.
5. Any real progress will not be made by re-inventing the wheel on basin planning. TMDLs are an example of a watershed program and would be a better place to start. One agency should act as a facilitator to promote cooperation.
6. The guiding principles are wonderful. Right now, no one is suggesting walking away from these in the development of a place-based approach or basin-planning effort. Because the effects are most often felt at the local level, communication needs to take place there. The team's work is fantastic and it is possible to see where it all comes together. The place-based actions will be the most valuable to local communities.
7. The same struggles are faced during recovery planning efforts. It only became real when it was implemented at the local level. The agencies could create an outline, putting the concept into real terms. A vision of where water quality standards are met, species are being recovered, and communities are being sustained, etc. With real measures, outcomes, and definition of success.
8. The best planning unit is at the basin scale. Make Action 10.C. reflect that.

The Policy Advisory Group was not asked to reach consensus on the draft recommended actions for Bulletin 11, "Water Management." Based on member comments, the Project Team committed to revising the actions for members to consider during the November 2011 PAG meeting.

Bulletin 11: Water Management

ACTION 11.A. INCREASE WATER CONSERVATION & WATER EFFICIENCY

- Establish and fund an on-line water conservation clearinghouse that documents water conservation's "best practices." The clearinghouse could include information on existing state and federal conservation programs, grant opportunities, and technical resources. State agencies with water conservation programs include OWRD, ODA, Building Codes' REACH Program, and ODOE. Provide "on-the-ground" resources to help explain the benefits of water conservation, best management practices, and to provide technical information, and resources.
- Focus on agricultural water efficiency. Using more than 80 percent of Oregon's diverted water, agriculture is the largest consumer of water in Oregon, and increased efforts in water efficiency in this sector could result in significant water savings statewide. To begin the process, encourage more irrigators to develop Agricultural Water Management and Conservation Plans. Provide grant funding for this purpose through the Water Resources Dept. and make use of Oregon Dept. of Energy tax incentive credits or Oregon Dept. of Agriculture efficiency grants.
- Engage industrial users to see if any regulations currently stand in the way of greater water efficiency.
- Publicize and clarify existing conservation programs at the local, state, and federal level, particularly the Allocation of Conserved Water Program and the Water Management and Conservation Planning Program to help with water conservation. Look for ways to expand the Conserved Water Program to reward more types of efficiency efforts. Partner with the Alliance for Water Efficiency and EPA's Water Sense Program.

Comments on Action 11.A.

1. The Oregon Department of Agriculture lost funding for staff work on agricultural energy efficiency this year and will need to make adjustments accordingly.
2. Modify second bullet to prioritize agricultural water use efficiency.
3. Expand outreach for the Conserved Water Program. This program should go beyond hard infrastructure changes to include changes in irrigation practices (scheduling, etc.). This change may only require an adjustment within the agency, rather than a rule or legislative change. Also, assess which streams could benefit most from the Conserved Water Program. In some cases, that excess water is flowing back to the stream anyway. In others, that is not the case.
4. Add a research item (with symbol) to conduct a statewide conservation potential assessment.
5. Do more to get agricultural participation in Water Management and Conservation Plans and provide incentives to participate. Irrigation districts typically develop them due to requirements of the Bureau of Reclamation. Many districts have found the planning process helpful.
6. This list of actions under water management is a good start. Action 11.A. is a truism. Water efficiency is great, however, process improvements for instream water transactions are also needed (e.g., how to deal with downstream harm analysis). Need simultaneous, not sequential permitting. Do not just help with water conservation - act as leaders.
7. Given the earlier comments made during the project, the actions are focused on agricultural water conservation. Is this action troublesome to the agricultural community?
 - a. Response: As long as it benefits agriculture, count us in. However, water efficiency is often good on paper, but not necessarily on the ground. Water in our basin is used seven times. Water is sent to the next field whether you use it or not. Lots of equipment and money have been put into the Klamath Basin, but a lot of it just sits there. Make sure it has on-the-ground benefits. Checking in with the basin and ensuring it has actual benefits is necessary.
8. In the fourth bullet, the reference to water management and conservation plans is unclear.
9. Need a clearer understanding whether water right holders need to use their full quantity authorized under their water right. Clarify what "ready, willing and able" really means.

ACTION 11.B. INCREASE BUILT STORAGE

- Encourage greater use of Artificial Recharge as a water treatment technique to help meet water quality standards for Aquifer Storage and Recovery, as demonstrated in the Umatilla Basin Aquifer Restoration Project. Areas of the State designated as ‘groundwater limited’ or ‘critical groundwater areas’ may be especially good candidates. Continue to make planning and feasibility study grants available for these projects. [WRD – DEQ – local communities]
- Allocate and reauthorize existing storage projects [Corps – BOR – WRD – local communities]. Seek funding to facilitate work between the state and federal agencies for allocating water stored behind federal dams, particularly in the Willamette, Columbia, and Crooked River Basins. Authorize a full range of beneficial uses, including anadromous fish and water quality needs, municipal, agricultural and industrial water supply, and recreation.
- Expand or improve existing storage projects [DSL – WRD – Federal Agencies – local communities]. Increase the storage capacity of existing storage projects, using various methods including raising dam height or dredging.
- Develop new off-channel storage sites [ODFW – DEQ – WRD – Federal Agencies - local communities—Tribes]. This alternative includes storing water behind dams constructed on side channels to the main stem and tributaries where no known fish habitat may exist. Natural runoff can be stored during the wet season and released during the dry season.

Comments on Action 11.B.

1. There should not be a bias toward built storage; instead, look for ways to “increase water supply” and rephrase action as such. Identifying Aquifer Storage and Recovery as “built” differs from a “built” above-ground storage reservoir. The use of wetlands and banking options are other ways to increase supply, too.

ACTION 11.C. ENCOURAGE ADDITIONAL WATER RE-USE

- Ensure that Oregon has the right policies and regulations in place to facilitate municipal and industrial water re-use.
- Conduct a statewide assessment of the potential for water re-use to fulfill current and future water supply needs, matching the water quality of reclaimed water to appropriate end uses.
- Maintain funding for the Water Resources Department’s grant program for conducting water conservation, re-use, and storage feasibility studies.
- Encourage and incentivize increased industrial water re-use.

Comments on Action 11.C.

1. It is important to consider the cost and benefits of proposed projects. Examine whether to care for inefficient, old, leaking existing systems versus establishing new water re-use infrastructure. It is important to remember the limited amount of dollars.
2. Consider the cost of re-use. Sounds like apple pie, but there is a real cost associated with it.

ACTION 11.D. ASSIST IN THE DEVELOPMENT OF ECOSYSTEM CREDITS AND MARKETS

Value and invest in ecosystem markets. Build upon Senate Bill 513 (2009), which sets the stage for ecosystem markets in Oregon. Specifically identify ecosystem service benefits or credits that can be sold outside of Oregon.

Comment on Action 11.D.

1. Clean up the language for this action. Ecosystem services are how you quantify it, whereas ecosystem service credits are related to how transactions are facilitated. Nationally, Oregon is closer to implementation than anyone else is in the country. The State should be driving the development, not just assisting development. The Department should take a lead in developing the flow protocol, which is being developed right now in the Klamath. The Water Resources Department should not be sitting on the sidelines. The Department of Environmental Quality has been involved in great ways (e.g. TMDL compliance). This section needs a lot of clarification.

Other Comments on the Water Management Draft Recommended Actions:

1. Laying out this list of actions as options is problematic. There are other water management techniques to consider (e.g., ASR, AR, water banking, leasing, and transfers). Any one of these has a corresponding effect on something else. Conservation is a great example - what is conservation doing to the freshwater springs in the lower Crooked River? Do not plop these actions on the table and let folks just pick the ones they like. The whole point of having an integrated water resources strategy is not to throw them together as a bunch of tools. Need to understand the impacts of any one of these tools first. These are a very important list of tools, but the question is, how to assemble them strategically in a plan, or in a basin, for maximum effect and for fully understanding the impacts.
2. Rephrase to say, “New water management strategies *could* include...” Otherwise, it may be jumping the gun by laying these out.
3. It would be useful to have as a key strategy to increase basic water management activities, which are relevant to all basins around the state (i.e., increased field presence, strategies to detect and stop illegal use, etc). The watermaster positions are critical to the management of this state's water resources and water rights. Given that watermaster FTEs have fallen over the past decade, it might be useful for future funding and staffing priorities to call this out in the strategy.
4. Agree with others that a state-agency field presence does need to be in here.
5. Add an action that extends the split-season leasing program and creates a permanent split-season transfer program.

Based on member comments, the Project Team committed to revising the actions listed under Bulletin 12 for members to consider during the November 2011 PAG meeting.

Bulletin 12: Ecosystem Health and Public Health Needs

ACTION 12.A. RESTORE NATURAL STORAGE AREAS

The function of these natural storage features has been lost over time due to stream channeling, land grading, and other activities. Do more to protect these systems during land-use planning.

- Maintain forested areas. Promote the maintenance of forestland in forest uses and promote the establishment of new forests as key elements in promoting high quality water and protection of soil productivity. (Oregon Department of Forestry's Draft 2011 "Forestry Program for Oregon")
- Develop a rapid assessment methodology, to determine storage capacity and system health of wetlands and streams. Local governments could use these assessments to make permitting decisions, evaluate the effectiveness of mitigation and restoration practices, and bolster their efforts under Statewide Planning Goal 5. [DSL – USACE – US EPA]
- Develop a statewide riparian policy, building upon language that exists in executive order. Draw upon already existing authorities at ODA, DSL, DEQ, ODF, and local governments to protect riparian areas.
- Develop a statewide floodplain policy, to set the framework for regulation and permitting work. [DSL, State, Federal, Local]
- Restore floodplain functions (Action 3.8 in ODFW's Conservation Strategy). Reconnect rivers and streams to their floodplains; restore stream channel location and complexity; remove dikes and revetments; allow seasonal flooding; restore wetland and riparian habitats; and/or remove priority high-risk structures within floodplains.

Comments on Action 12.A. *(This action needs more discussion/clarifying information before including in IWRS)*

1. Modify the action to say, "Protect and Restore Natural Storage Areas."
2. In the third bullet, which executive order is being referenced?
3. This action is missing the maintenance of forests to make them productive forests (fire protection, providing water, etc.).
4. I think most of our forestry problems relate to federal forests, not to state or privately owned forests. This is a federal issue, which may be left unaddressed.
5. In the last bullet, development of a statewide floodplain policy should also include DSL, DLCD, and FEMA and lead/coordinating agencies.
6. Floodplain policy needs to be viewed through an agricultural lens.
7. Describe what the riparian policy is now and what is driving FEMA's floodplain policy before proceeding forward with this action.

ACTION 12.B. PURSUE ADDITIONAL INSTREAM PROTECTIONS [contingent upon implementing Action 3.A]

- Recommend the designation of additional scenic waterways. [OPRD]
- Apply for new instream water rights, including those that protect a suite of flows (base, peak, ecological and other flows). [DEQ, ODFW, OPRD]
- Expand programs to restore streamflows, such as instream transfers and related OWEB grant programs.
- Private sector funders could acquire water from willing sellers to restore and protect water instream. Evaluate the pricing of such efforts; ensure they are economically competitive with other uses of water.

Comments on Action 12.B. *(Include action in IWRS, with modifications)*

1. Flip the first and third bullets. Modify third bullet to say, "Expand and streamline programs..."
2. This action is not contingent upon implementing Action 3.A. Remove reference.
3. Provide a system to review instream water rights once established flow standards have been met. This would clarify whether paper water and wet water are the same and whether it meets water quality standards or criteria for fish needs. If the system is not working, are standards correct? Are perceptions of the standards correct?

- a. If we evaluated flow standards, what might the consequences be?
 - b. Other water rights (consumptive) are not reviewed for their sufficiency.
 - c. Out-of-stream rights are measured and monitored often.
 - d. To clarify, once flow restoration projects are close to meeting the instream targets (on paper), a conversation should occur about what that really means.
 - e. All water rights should be examined, with the capacity to constantly review water rights and adaptively manage.
4. Regarding the public sector acquiring water for instream needs, what if you have a water right but only use part of it and the rest goes to the junior user. If someone wants to buy a water right, shouldn't they only be able to purchase what has been used?

ACTION 12.C. IMPROVE POLLUTION PREVENTION

- Reduce the Use of Toxics
 - ~ Establish an interagency toxics chemicals reduction team that is charged with developing a list of “toxic chemicals of concerns” and a toxics use reduction strategy. Identify specific actions the state can take to reduce releases of and exposures to listed chemicals.
- Sourcewater Protection
 - ~ Establish “take back programs” for unused and outdated products, including pharmaceutical take-back programs for communities, pesticide collection programs for farmers and ranchers, and hazardous waste. [See Action 8.A]
 - ~ Provide technical and funding assistance to clean-up contaminated aquifers
 - ~ Ensure consistent riparian buffers and restoration requirements for all land uses.
 - ~ Encourage techniques that decrease turbidity and sedimentation (e.g., no till farming).
 - ~ Promote consistent application of state water quality standards across land uses.
 - ~ Encourage the Oregon Treasurer’s Office and Department of Administrative Services to incorporate water quantity and water quality issues into investment and purchasing decisions. Use state and local purchasing power to demonstrate preference for products made without toxic or persistent pollutants, such as certain soaps or cleaners.
 - ~ Continually improve water quality standards, including the Priority Persistent Pollution list (P3), Total Maximum Daily Loads (TMDLs), new water quality standards for toxics, non-point source pollution, and toxic reduction plans.
- Prevent and Eradicate Invasive Species
 - ~ Support efforts by state and federal agencies, including the use of boat inspections stations, to prevent the spread of invasive species. More specifically, support the Oregon Conservation Strategy’s six statewide actions aimed at preventing new introductions, and the scale and spread of infestations.

Comments on Action 12.C. (Include action in IWRS, with modifications)

1. Many of these actions are already being implemented. Granted, probably not enough is being done. How much of this is duplication or just needs some recognition that programs exist? Need to focus on what is the value added - you are not creating something new here.
2. Add a recommendation that requires all state agencies to incorporate the reduction of toxics identified by DEQ as chemicals of concern in the Toxics Reduction Strategy into their relevant policies, programs and operations (related to the first bullet).
3. The item, “ensure consistent riparian buffers and restoration requirements for all land uses” enters into Measure 37 and 49 issues. Addressing this will likely require legislation or rule making (add the symbol).
4. The item, “promote consistent application of state water quality standards across land uses” sounds like a fluffy statement, but it is pretty controversial. Municipal stormwater is not subject to water quality standards. Forestry and agriculture are not either. Even if you are on track to meet standards, they are not applied in the same way to agriculture as to a municipal treatment plant or industrial plant. The uses are not subject to the same level of enforcement or timing. This is not good or bad, just different. The existing regime is so inflexible for industrial and municipal users. Even if the ultimate objectives were the same (which they are not), how you get there is going to be very different from one sector to another. There is not consistent application of those standards. They are applied very differently to different land uses. Implementing this action would likely require legislative action (add symbol).

5. Disagree with earlier comments – there are water quality regulatory programs for agriculture and riparian use. State agencies have outreach programs in place and pursue these standards. The difficulty lies in land ownership, which changes over time and new owners often are not aware of the rules. Agreed that how the standards are met is different, but the standards do apply to agriculture and forestry.
6. Strike, “consistent” in the bullet, “promote consistent application of state water quality standards across land uses,” and in the bullet “ensure consistent riparian buffers and restoration requirements for all land uses. The standards do not have to be the same.
7. Even though some actions are already underway, some non-point pollution prevention programs need to be expanded, such as Pesticide Stewardship Partnership. These programs need state investment.
8. Regarding toxic reductions, DEQ is working on agency wide toxics reduction strategy to identify “toxics of concern.” Multiple agencies should participate in these efforts, as well as incorporate toxic reduction strategies into their own workplace.
9. There are no septic issue-related actions in here.
10. In the third bullet regarding invasive species, add local partners as a participating entity. Also add federal partners to this list. There is a huge problem with federal agencies not doing their job. Federal lands have invasives entering neighboring private lands.
11. Question: Are these actions aimed at improving water quality standards or water quality itself?
12. IWRS contains programs that could be expanded and/or established. Need to tease out what level these actions should grow into. Need further discussions about capturing already existing work in the IWRS.

ACTION 12.D. IMPROVE HABITAT AND HABITAT ACCESS FOR FISH

- Build on the successes of habitat improvement, including large wood placement or riparian improvement.
- Build on the successes of the Oregon Plan for Salmon and Watersheds by removing fish passage barriers (e.g., replacing culverts with bridges, installing larger culverts, construction of fish ways, and stabilization of road fill material, installing fish screens, and retiring push-up dams).

Comments on Action 12.D. (Include action in IWRS, with modifications)

1. Second bullet, add, “obsolete and push up” dams.
2. Add Forest Practices Act to this text.

Discussion: Identifying Key, High Priority Actions

Following the discussion of draft recommended actions, members took a few moments to offer their thoughts on those actions that were identified as key, high priority actions to implement during the first five years of the strategy. Members also made a few comments on the guiding principles throughout the course of the meeting. Those comments are reflected below.

Additional Comments on Action 1.A. and 1.B.

1. Everyone seemed to think Action 1.A. was important (“Map” Oregon’s water related institutions). It deserves to be high priority in the first five years.
2. Action 1.B. (filling in data gaps) deserves the status of a high priority, key concept.
3. If the action is just aimed at “mapping,” it should not be labeled as key. If it is to better integrate water management institutions, then it should get a key.
4. If you do not know which agencies have the data, it is very hard to fill in the data gaps.

Additional Comments on Action 4.B and 4.D.

1. Action 4.B. does not really rise to a strategic level (“Take advantage of water infrastructure to develop hydroelectric power.”). The IWRS cannot incent this further.
2. Move key from Action 4.B. to Action 4.D. (“Promote strategies that conserve both energy and water.”).
3. There are things that need to be addressed to get to Action 4.B. This action should be kept as a high priority.
4. Take the key off Action 4.B. because it is going to happen anyway.

Additional Comment on Action 11.D.

1. Place a key next to Action 11.D. for ecosystem services and market opportunities. This action could infuse a lot of money into the system.

Additional Comments on the Key Concepts, in general:

1. There are too many keys on the board. In the next two years, there isn’t any additional money to implement any given action. That only gives us three years of new money to launch new programs. Be realistic about funding goals.
2. Some of these actions are easy and cheap. Can Action 1.A. be completed without additional funding? Should the PAG identify the low-hanging fruit?
3. Put a key in each section to show where you would start. Unrealistic to prioritize the bulletins as well.
4. Make a symbol for low hanging fruit.
5. There is no low hanging fruit.
6. Forget the keys. The actions will happen where there is the energy and money. Trust that the agencies can complete this step because otherwise, the PAG will debate this all day. This is not a fruitful discussion. This PAG is not going to finalize these.
7. Just figure out what the state and local groups need to do to make our vision happen.
8. From the beginning, the PAG’s role has been to help pare down and prioritize our work. The Project Team does not want the PAG to sidestep this. Even just providing some guidance / parameters would help. The Project Team will circle back to confirm these in the end.
9. Identifying the keys should wait until the next version of the actions is developed.
10. The Project Team is clever at giving meeting assignments; let them pose more questions to us in between meetings, if that will help.
11. PAG members could send key suggestions to the Project Team, particularly any criteria that should be applied.

Comments on the Guiding Principles

1. Regarding the “accountable and enforceable actions” principle, does avoiding the prior appropriation doctrine preclude us from increasing enforcement or adding new regulations? This principle implies that state agencies might just continue with the status quo by only emphasizing compliance with existing laws and water policies.
2. Under the “balance” principle, it mentions “traditional” management. Where is the opportunity for creativity?

Agenda Item VI, Other Business and Public Comment

There were no public comments.

Agenda Item VII, Meeting Recap and Feedback

PAG members applauded staff for their recent work.

One member would like to see more about “how” these actions are going to come together. Another member asked whether there would be an executive summary of the strategy. PAG members may have some ideas on how the Strategy should look, what it includes, etc. and encouraged staff to solicit their input. For the Water Resources Department, the strategy will be key; however, other agencies should show some commitment, especially considering they are not adopting the strategy. The other agencies should use the strategy as a launching point for their work. PAG members concluded the conversation by stating there are two targets for the strategy – the Legislature, which funds the implementation of actions, and the public - for buy in for some other creative funding mechanism.

Agenda Item VIII, Adjourn

The meeting adjourned shortly after 5:00 p.m. The Project Team has scheduled the next Policy Advisory Group meeting for Tuesday, November 8, 2011 at the Water Resources Department in Salem, Oregon.

Attachment 1: Working Acronym List

Acronym/Term	Description
AR	Artificial Recharge
ASR	Aquifer Storage and Recovery
BiOp	Biological Opinion
BMPs	Best Management Practices
BUREAU	U.S. Bureau of Reclamation
CORPS	U.S. Army Corps of Engineers
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
DEQ	Oregon Department of Environmental Quality
DEQ	Department of Environmental Quality
DHS – DWP	Oregon Department of Human Services – Drinking Water Program
DLCD	Oregon Department of Land Conservation and Development
DOE	Oregon Department of Energy
DOGAMI	Oregon Department of Geology and Mineral Industries
DRC	Deschutes River Conservancy
DSL	Oregon Department of State Lands
DWA	Deschutes Water Alliance
EPA	U.S. Environmental Protection Agency
EQC	Environmental Quality Commission
ESA	Endangered Species Act
GWMA	Groundwater Management Area (DEQ designation)
IFA	Infrastructure Finance Authority
MGD	Million Gallons per Day
NOAA	National Oceanic Atmospheric Administration, U.S. Dept. of Commerce
NPDES	National Pollutant Discharge Elimination System
OAR	Oregon Administrative Rule
OBDD	Oregon Business Development Department
ODA	Oregon Department of Agriculture
ODF	Oregon Department of Forestry
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
OHA	Oregon Health Authority
OPRD	Oregon Parks and Recreation Department
ORS	Oregon Revised Statute
OWEB	Oregon Watershed Enhancement Board
OWRD, WRD	Oregon Water Resources Department
PAG	Policy Advisory Group
PUD	Public Utility District
SWCD	Soil and Water Conservation District
TMDL	Total Maximum Daily Load
USGS	United States Geological Survey
WRC	Water Resources Commission
WRIA	Water Resource Inventory Areas (State of Washington)