DRAFT

Note: Updated Oct. 26, 2011

Below, the Project Team has revamped Recommended Actions #9 through #12, based on input provided over the summer from the three advisory groups, the Water Resources Commission, public comments, and stakeholder workshops.

During the November 8, 2011 Policy Advisory Group Meeting, the PAG will review and discuss these re-vamped recommendations, and will be asked for a "thumbs up," in the same manner the previous meeting addressed Recommendation Actions #1 through #8.

In red font below, PAG members will see a number of policy questions that will be posed and discussed at the November 8 meeting. Please also note there is a list of acronyms on the last page.

Mark your calendars…the PAG is scheduled to meet again March 8, 2012 to review all 12 Recommended Actions, in an effort to come to consensus on the more detailed bullets that follow each numbered action.

#9 Funding (these items are in a different order than previous versions).

Action 9.A Fund Communities That Are Conducting Regional (Sub-basin) Water Resource Planning

- Provide funding incentives that encourage communities to conduct regional (sub-basin) water resource planning (See Action #10A). Re-capitalize a grant fund to help communities conduct water resource planning described under Action #10A. Formerly called the Oregon Water Supply and Conservation Initiative (OWSCI) at the Water Resources Department, this fund was last capitalized in 2007[1]. [OWRD]

- Provide funding incentives that help communities evaluate the feasibility of specific water resource projects, developed through regional (sub-basin) water resource planning (See Action #10A). Re-capitalize a grant fund to help communities conduct feasibility studies for projects identified through regional (sub-basin) water resource planning under Action #10A. The state's SB 1069 Grant Program for Water Conservation, Re-Use, and Storage was last capitalized for the 2013-15 biennium for $1.2 million. [OWRD]

Action 9.B Fund Implementation of Projects Emerging from Regional (Sub-basin) Water Resource Planning

- Provide grant funding to assist with the implementation of water resource projects developed through regional (sub-basin) water resource planning (see Action #10A). Re-capitalize a grant program to help communities implement projects identified through water resource planning efforts described in Action #10A. Such projects could include water conservation, re-use, or storage projects with multiple benefits[2] [OWRD]. Policy Question: Should this be a new grant fund, or is the Water Investment Grant Fund established by HB 3369 (2009) an appropriate mechanism? If the projects are not conservation, re-use, or storage (i.e., they involve septic systems, stormwater, restoration, acquisition or other efforts), then the Water Investment Grant Fund is not a broad enough mechanism.

- Provide low interest loans to assist with the implementation of water resource projects developed through regional (sub-basin) water resource planning (see Action #10A). Re-capitalize a loan program to help communities implement projects identified through water resource planning efforts described in Action #10A. Such projects could include water conservation, re-use, or storage projects with multiple benefits[3]. [OWRD] Policy Question: Should this be a new loan fund, or is the Water Development Fund established by HB 3369 (2009) an appropriate mechanism? If the projects are not conservation, re-use, or storage, then the Water Investment Grant Fund is not a broad enough mechanism.

- Establish a clearinghouse of information related to available funding / incentive programs. See examples in footnotes. [OWRD – DEQ – OBDD – OHA – Federal Partners]

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[1] Additional potential funding sources include the Department of Land Conservation and Development Technical Assistance Grants, Oregon Infrastructure Finance Authority grants and loans (Special Public Works Fund, Waste-Wastewater Financing, Community Development Block Grants, and Safe Drinking Water Loan Fund), U.S. Department of Agriculture's Rural Utilities Service, U.S. Department of Interior's System Optimization Review Grants, and the non-profit Rural Community Assistance Corporation.

[2,3] Funding for implementation could include state and federal funding sources listed above, as well as USDA's Rural Development Programs for grant monies that states can turn into loans, U.S. Army Corps of Engineer's Floodplain Management Services Program, and grants from the Oregon Watershed Enhancement Board.

Action 9.C Fund Water Resource Management Activities at the State Level 

- Fund those water resource management activities for which the state has responsibility, including technical assistance for the projects above, data collection and processing, and oversight (water distribution, regulation, and environmental protection). These core activities are underfunded. Bringing agencies up to basic capacity levels will provide a foundation upon which to build core water programs, and will cost several million dollars. Potential funding mechanisms, suggested during open houses and other events, include:

    - Securing more of the state's General Fund
    - Securing more federal funds
    - Securing more lottery funds
    - A new water right management fee
    - A new "public purpose charge" (assessed to all drinking water utility customers). See example from the energy sector: Oregon law requires customers of Portland General Electric and Pacific Power to pay a three percent public purpose charge. The Energy Trust receives and invests some of these funds to support energy-efficiency projects and assist with the above market costs of new renewable resources.
    - A new "exempt use well fee" (assessed to those with their own wells…not supplied by utilities)
    - Hybrid idea: public purpose charge AND exempt use well fee to reach both utility and non-utility customers (see Maryland's Chesapeake Bay Protection Fund).
    - Another hybrid: water right management fee AND exempt use well fee to reach both water right permit holders and non-permit holders.
    - Increased recreation fees (added to existing boating or fishing licenses)
    - Increased rates for permit applications, reimbursement authority, etc.
    - Dedicated funding source for non-point source pollution programs.

    Policy Question: can the group come to any consensus on funding options?

Action 9.D Fund Development and Implementation of Oregon's Integrated Water Resources Strategy for the first five years (2012-17).

- Fund Development and Implementation of the IWRS. For the past two biennia, the Oregon Legislature has funded the development of Oregon's Integrated Water Resources Strategy with two limited duration personnel. Oregon Statute (ORS 536.220(3)(e)) calls for an update to the Strategy every five years. Other states have dozens of staff dedicated in a full-time capacity to these tasks. Recommend continuing two personnel to help with development and implementation of Oregon's IWRS over the next five years.

#10 Place-Based Approaches

Action 10.A Facilitate Regional (Sub-Basin) Water Resource Planning (combined 10A & C from previous)

- Provide technical assistance to communities who are interested in undertaking water resource planning. Technical assistance may include providing facilitation and communication services, collecting and providing data, providing engineering or other guidance, and developing a step-by-step guidance manual that lays out the framework of a local plan. Regional (sub-basin) water resource planning involves more than the development of new water supplies. It involves a holistic look at water sharing and water partnerships, involving water suppliers, wastewater and stormwater managers, water re-use facilities, and inter-sectoral partnerships among agricultural, municipal, industrial, and environmental interests. (See Actions 9.A. and 9.B for funding assistance.) [OWRD – DEQ – ODFW – ODA – state and local partners]

  The state has an important role in facilitating these discussions and providing information to local decision-makers, helping to identify and evaluate water resource management options without abrogating any of its regulatory or decision-making authorities.

  Potential framework of a local plan [add more detail and move to an appendix]:

  - Which local organizations or partnerships have the institutional capacity to host these conversations?
  - Are the right parties at the table? Have we included water suppliers, stormwater and wastewater managers, irrigated agriculture, private businesses, conservation and restoration organizations, watershed councils, soil & water conservation districts, city and county planners, and relevant state and federal agencies? How will this group preserve public access to discussions and decision-making?
  - What are our water quantity and quality needs now, compared to our needs in the future? This includes both instream and out-of-stream needs, as well as stormwater, wastewater, and septic system challenges. What is the status of water quantity, water quality, and ecological resources today? Where will these resources fall short in the future (looking out 50 to 100 years), given our current institutional and infrastructure arrangements?
  - How could this group (sub-basin) meet, over time, its identified instream and out-of-stream goals? How would it propose to fit into the Integrated Water Resources Strategy?

  Potential sideboards of Regional (Sub-Basin) Water Resource Planning [add more detail and move to an appendix]:

  - This approach is not an off-ramp from meeting already existing regulatory requirements.
  - This approach must include public involvement.
  - Local communities may have a cost-share requirement, in exchange for state funding, data, or technical assistance.
  - Local communities may have a data collection requirement, to address key information gaps.
  - Policy Question: are these the types of sideboards PAG members had in mind?

Action 10.B Participate in Transboundary Discussions Regarding Long-Term Water Resource Management

- Columbia River Basin Water Management Program. Explore, with the State of Washington, Oregon's potential participation in projects of (Washington's) Columbia River Basin Water Management Program. This program was launched in 2006 to pursue development of water supplies to benefit both instream and out-of-stream uses. [OWRD – ODFW – DEQ]
- Winter Water from the Columbia River. Continue Oregon's commitment to allocate winter water from the Columbia River for irrigated agriculture and economic development. [OWRD – ODFW – DEQ – ODA]
- Columbia River Treaty. Continue to participate in Columbia River Treaty negotiations, which have historically focused on hydropower, navigation, and flood control. [OWRD – ODFW – DEQ]
- KBRA. Continue implementation of the Klamath Basin Restoration Agreement (signed in 2010). [OWRD – ODFW – DEQ]

Action #11 Water Resource Development

Each of the techniques and tools numbered below should be considered and evaluated as part of the regional (sub-basin) planning efforts described in Action #10.A.

Action 11.A Increase Water-Use Efficiency and Water Conservation

- Establish and maintain an on-line water-use efficiency and conservation clearinghouse. Highlight and describe "Best Management Practices," as well as state and federal funding opportunities, technical resources, and conservation programs[4]. Provide documentation that builds the business case for water-use efficiency and conservation, through the use of techniques such as basic maintenance, piping and lining, soil moisture sensors, modified irrigation schedules / practices, etc. Coordinate these efforts with energy conservation programs and grants, described in Action #4. [OWRD]

- Prioritize agricultural water efficiency. Using more than 80 percent of Oregon's diverted water, agriculture is the largest consumer of water in Oregon; increasing efforts in this sector could result in significant water savings statewide. Encourage more irrigators to develop Agricultural Water Management and Conservation Plans, using guidelines from the Water Resources Department. The Bureau of Reclamation offers competitive grants to facilitate this type of work, other grant sources could include the Oregon Water Resources Department OWSCI grants, Oregon Department of Energy tax credits, or Oregon Department of Agriculture efficiency grants. [OWRD - ODOE – ODA]

- Expand outreach and participation in water conservation and efficiency programs. Improve awareness of and participation in the state's water conservation programs, particularly the Allocation of Conserved Water Program. Recent surveys show that irrigators and technical assistance are not aware of this program nor the benefit of applying a portion of the conserved water to previously dry lands, if some of the conserved water is also placed instream. [OWRD – ODA]

- Conduct a statewide water conservation potential assessment 🕮. Assess which streams could benefit most, hydrologically, from water conservation efforts and identify which projects are most likely to yield the highest water efficiencies per dollar invested. The Water Resources Department and Department of Fish and Wildlife already have identified stream reaches that are most in need of improved stream flows. The next step is to identify which of those are places where conservation practices are likely to directly benefit stream flows and where irrigators can successfully use the Allocation of Conserved Water Program to apply their water savings to new lands.

Action 11.B Improve Access to Built Storage

- Develop additional below-ground storage sites. Encourage increased use of Aquifer Storage and Recovery (ASR) for water storage, where feasible. Support the storage of available winter (surface) water in groundwater aquifers. Areas of the state designated as "groundwater limited" or "critical groundwater areas" may be especially good candidates for underground storage. Encourage regional partnerships that can help meet water quality standards for ASR injection; water treatment techniques can include municipal treatment facilities and Artificial Recharge (AR). Help local communities identify and protect potential below ground storage sites. [WRD – DEQ – OHA – local communities]

- Develop additional above-ground, off-channel storage sites. Support the multi-purpose storage of winter water behind dams constructed on side channels to the mainstem and tributaries where no known fish species exist. Help

[4] State agencies with water conservation programs include OWRD, ODA, DCBS / Building Codes' Reach Program, and ODOE. Federal agencies with water-related conservation programs include Natural Resources Conservation Service (USDA), Bureau of Reclamation, Bonneville Power Administration, and US Environmental Protection Agency.

local communities identify and protect potential above ground storage sites. [DLCD – OWRD – ODFW – ODA – federal partners - local communities]

- Expand the capacity of existing above-ground storage projects, using methods such as raising dam height. [local communities – Federal Agencies – OWRD]

- Allocate and re-authorize existing above-ground storage projects. Re-allocate water stored behind federal dams in the Willamette and Crooked River Basins to include a full range of beneficial uses to meet agricultural, municipal, industrial, environmental, and recreational needs. Develop contracting mechanisms that allow access to such water. [OWRD – USACE – BOR – local communities]

Action 11.C Encourage Additional Water Re-Use

- Ensure that Oregon has the right policies and regulations in place to facilitate water re-use, while giving due consideration to the protection of instream flow and water quality. [OWRD – DEQ – ODFW – local communities]

- Conduct a statewide assessment of the potential for water re-use to fulfill current and future water resource needs 🕮 . Match the water quality of reclaimed water to appropriate end uses. Assess the impacts on stream flow and water quality.

- Encourage and provide incentives for increased water re-use for municipal, industrial, and agricultural uses.

Action 11.D Improve Water Right Permitting, Certificate, and Transfer Processes

- Continue streamlining / improving the water right permitting, certificate, and transfer process. Recent process improvements have enabled the Water Resources Department to reduce backlogs in all facets of the water rights application process. With investments in technical staff, data systems, and on-line platforms, all of these processes could be further improved [WRD – public and private partners].

- Update the state's water right database. Today, there are no statutory provisions that allow the name on a water right certificate to be changed, even if the holder of the certificate has passed away or sold off interests. The state needs the ability to modify these certificates and update the related database. Further investment in staff would also enable the Water Resources Department to update records related to water right forfeiture and to make other changes, such as mapping water rights and improving compliance with measurement and reporting conditions. [WRD – public and private partners].

Action 11.E Increase Field Presence – Enforcement Capacity

- Increase and maintain field presence among the state's watermaster corps, field inspectors, and water quality specialists. Field personnel ensure compliance with permit conditions; guard against waste, contamination, and loss of pressure; and protect senior water rights. Because of resource constraints, regulatory presence in the field has been greatly reduced, compared to 20 years ago. The state's ability to identify and correct problems in local water resource management is dependent on the number of personnel in the field, the technical training they receive, and the equipment (measurement, communications, transportation) available [WRD – DEQ].

#12 PUBLIC HEALTH AND ECOSYSTEM HEALTH [Different Order Than Previous]

Action 12.A. Improve Safety of Oregon's Drinking Water

- Assist public water suppliers. Increase the capacity of the Oregon Health Authority to consult with and educate public water suppliers on safe drinking water regulations, contaminant standards, source water treatment options and best practices to prevent drinking water contamination [OHA – EPA - local governments].

- Focus on small public water systems. Improve the safety of drinking water provided to customers of very small public water systems (4 to 14 connections or 10 to 24 people served) by ensuring compliance with safe drinking water standards [OHA – EPA - local governments].

- Protect drinking water sources. Increase the capacity of the Oregon Health Authority to collaborate with other agencies on drinking water source pollution prevention efforts. Provide support of federal funding of Safe Drinking Water Act revolving loan funds for source water protection projects [OHA – EPA – local governments].

- Focus on Water System Security and Emergency Preparedness. Maintain and implement a statewide emergency response system that can quickly respond to drinking water emergencies [OHA – OMD/OEM – local governments].

- Increase Domestic Well Testing. Provide information to parties conducting domestic well testing to increase testing, disclosure of results and reporting. Provide data and information to private water users, helping them to make informed decisions regarding their drinking water [OHA – OMD/OEM – local governments].

Action 12.B. Reduce the Use of and Exposure to Toxics and other Pollutants

- Finalize and implement the state's Toxics Reduction Strategy. The Toxics Reduction Strategy takes a cross media approach, focusing on air, land, and water. It includes a list of toxic chemicals as well as specific tasks to reduce the use of and exposure such toxics in the next five years. Establish an interagency toxics chemicals reduction team to help implement the above Strategy as part of day-to-day operations at state agencies.

- Implement the Pesticide Stewardship Program, recently approved by the U.S. Environmental Protection Agency for Oregon. This plan sets forth a process for preventing and responding to pesticide detections in Oregon's ground and surface water resources by managing the pesticides that are currently approved for use by EPA in both agricultural and non-agricultural settings. ("Legacy" pesticides , such as DDT/DDE, aldrin, dieldrin, chlordane, and heptachlor are addressed under a separate program.) The overall plan relies on the formation of a Water Quality Pesticide Management Team (*WQPMT*) composed of representatives from DEQ, ODA, ODF, and OHA, who will act as a coordinating advisory team during: 1) selection and prioritization of pesticides; 2) establishment of water quality guidelines and reference points; 3) watershed vulnerability assessments; 4) design and implementation of monitoring efforts; 5) recommendation of management options; and 6) development of communication strategies. [DEQ – ODA – ODF – OHA]

- Establish and fund "take back programs" for unused and outdated chemicals. Establish and continue pharmaceutical take-back programs for communities, pesticide collection programs for farmers and ranchers, and hazardous waste collection events. [DEQ – EPA – public and private sector partners]

- Revise purchasing practices related to toxic chemicals. Public and private entities should consider revising their purchasing practices for soaps, cleaners, and electronic devices to provide preference for manufacturers that commit to reducing toxic chemicals. [public and private organizations]

- Identify and address hazardous or contaminated sites. Sites, facilities, or structures originating with industrial, military, transportation, energy or other uses may be in such condition that they pose a serious or imminent hazard of emitting or discharging substantial amounts of toxics or other pollutants. These should be identified and all

immediate legal means and enforcement mechanisms should be employed to prevent such emissions or discharges before they occur. Provide technical and financial assistance to clean-up already contaminated aquifers. [DEQ – EPA – public and private sector partners]

- Continue to support the Environmental Council of the States' Resolution 10-8 (August 2010), asking the U.S. Environmental Protection Agency to update and reform the Toxic Substances Control Act of 1976, to address the legal and procedural hurdles that prevent timely and effective regulatory actions that protect the public against well-known risks, even in those cases where the U.S. EPA has adequate data on a chemical. [DEQ]

- Prevent blue-green algae from forming in lakes, streams and ponds. Blue-green algae, or cyanobacteria, can irritate skin, cause liver malfunction, or affect the nervous system. They thrive in warm, stagnant waters that have significant concentrations of nutrients, particularly phosphorus. Steps should be taken to control phosphorous from entering the water body through fertilizer runoff, septic systems, and other sources. Additional prevention techniques include increasing water flow through the lake or reservoir, artificial circulation of water within the reservoir, and improved watershed management. [DEQ – OHA – EPA – local governments]

Action 12.C. Implement Water Quality Pollution Control Plans

- Continue to develop and implement Total Maximum Daily Load plans for waterbodies that do not meet water quality standards. Build upon DEQ's recent completion of 1153 TMDLs in Oregon. Develop TMDLs for waterbodies and pollutants newly added to Oregon's 303(d) list, in accordance with the federal Clean Water Act. Review and update already existing TMDLs. Revise wastewater permits to meet wasteload allocations and provide oversight to ensure that TMDL implementation measures are implemented and effective. [DEQ and Designated Management Agencies]

- Address Nonpoint Sources of Pollution. Continue to regulate and manage nonpoint sources of pollution across all land uses (e.g., urban, agriculture, forestry) to ensure the protection of surface water and groundwater quality. Build upon the existing work done through Agricultural Water Quality Management Plans[5] and the Forest Practices Act, particularly related to temperature, sedimentation, and contamination of surface water. Increase monitoring to determine the efficacy of these approaches. [DEQ- ODA – ODF – local governments]

- Assist Communities with Septic Challenges. Failing systems increase the risk of contamination of both surface water and groundwater. Provide technical and funding assistance to landowners who need to replace aging septic systems. Provide technical and funding assistance to communities wishing to address public health or water quality problems associated with individual subsurface sewage disposal systems. [See Action #10A].

Action 12.D. Improve Watershed Health, Resiliency, and Capacity for Natural Storage[6]

- Maintain Forested Areas. Promote the maintenance of forestland, both public and private, in forest uses and promote the establishment of new forests as key elements in promoting high quality water and protection of soil productivity. (See Oregon Department of Forestry's 2011 "Forestry Program for Oregon" for more details.) [ODF, USFS]

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[5] Oregon's Agricultural Water Quality Management Program was authorized in SB 1010 (1993) to prevent and control water pollution from agricultural activities and soil erosion, and to meet the state's water quality standards. Typical agricultural water quality issues include: bacteria from manure; nutrients from manure and fertilizer; sediment from eroding fields and banks; and warm temperatures from tailwater, lack of riparian vegetation, and lack of groundwater inflows.

[6] Resilience is a key concept in landscape ecology and socioeconomics. Resilience is the capacity to absorb and adapt to disturbance and change – while maintaining essential functions. (Northwest Power Planning Council, *Using a Comprehensive Landscape Approach for More Effective Conservation and Restoration*, September 30, 2011)

- Assess Wetlands. 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 – local government]

- Restore Floodplain Functions. Develop a statewide floodplain policy to set the framework for regulation and permitting work. Implement Action 3.8 in ODFW's Conservation Strategy to 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, where possible. [DSL, DLCD, FEMA, local government].

Action 12.E. Pursue Additional Instream Protections 

- Designate Scenic Waterways. Recommend the designation of additional rivers or segments of rivers as scenic waterways, where appropriate to protect recreation, fish, and wildlife uses. [OPRD - WRD]

- Establish Instream Water Rights. Establish new instream water rights, including those that protect a suite of flows (base, peak, ecological and other flows). At completion of a TMDL, where appropriate, the Department of Environmental Quality will prepare and submit to WRD an instream water right application for the flow amount used to calculate the TMDL. Work to resolve the Water Resources Department's protested instream water right applications. [DEQ - ODFW – OPRD – WRD]

Action 12.F. Prevent and Eradicate Invasive Species

Support efforts by local, state and federal agencies, including the use of boat inspections stations, to prevent the spread of invasive species. Support the Oregon Conservation Strategy's six statewide actions aimed at preventing new introductions, and the scale and spread of infestations. They are:

- Focus on prevention through collaborative efforts and increased public awareness and reporting (OCS Action 2.1).
- Develop early response mechanisms to facilitate swift containment of new introductions, using site appropriate tools (OCS Action 2.2).
- Establish a system to track location, size, status of infestations of priority invasives (OCS Action 2.3).
- Focus on eradication of invasive species in Strategy Habitats and other high priority areas where there is a clear threat to ecosystems and a high probability of success (OCS Action 2.4).
- Develop an invasive species implementation tool that evaluates the ecological impact and management approaches for invasive species identified as priorities in the Conservation Strategy (OCS Action 2.5). [ODA – Ore Invasive Species Council]
- Develop and test additional techniques to deal with invasives and share information with landowners and managers (OCS Action 2.6).

In addition,

- Ballast Water. Implement and enforce ballast water management regulations to reduce the risk of introducing new aquatic invasive species. The discharge of ballast water, used to provide vessel stability, may introduce aquatic non-indigenous species into Oregon waterways, potentially resulting in ecological damage.

Action 12.G. Protect and Restore Instream Habitat and Habitat Access for Fish and Wildlife

- Build upon existing ecological planning efforts. Continue to implement and build upon the successful collaborative efforts of the Oregon Plan for Salmon and Watersheds, Northwest Power and Conservation Council's Strategy for Salmon, Recovery Plans and Biological Opinions, and the Oregon Conservation Strategy. Look for opportunities to coordinate actions. [Oregon Plan Core Team – local governments – federal partners]

- Remove fish passage barriers and prevent fish from entering diversions. Continue to focus efforts on 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 obsolete and push-up dams). [Oregon Plan Core Team, Watershed Councils, Soil & Water Conservation Districts, public and private partners]

- Expand the geographic range of flow restoration efforts. Today, instream flow restoration activities predominantly occur in a handful of basins, however, streamflow restoration needs have been identified in all 18 basins throughout the state. Develop and implement strategies that target watersheds with the highest instream flow needs, extending streamflow restoration beyond current efforts, on both public and private lands. [Oregon Plan Core Team, Watershed Councils, Soil & Water Conservation Districts, public and private partners]

Action 12.H. Assist in the Development of Ecosystem Services Markets

- Value and invest in ecosystem services markets. Build upon Senate Bill 513 (2009), which set the stage for ecosystem services markets in Oregon.

- Focus first on water quality. Support and facilitate water quality trading projects that meet regulatory requirements and achieve additional ecosystem credits in a cost-effective manner (e.g., issuing permits that rely upon riparian shade restoration to achieve heat reduction requirements for point source discharges). [DEQ – local communities – private partners]

- Focus next on flow restoration. Assist with ongoing development of protocols/tools for translating flow restoration actions into ecosystem credits. [OWRD – local communities – private partners]

List of Acronyms

Acronym	Description
AR	Artificial Recharge
ASR	Aquifer Storage and Recovery
BiOp	Biological Opinion
BMP	Best Management Practice
BOR	Bureau of Reclamation, U.S. Department of Interior
BPA	Bonneville Power Administration
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
DCBS	Oregon Department of Consumer and Business Services, Building Codes
DEQ, ODEQ	Oregon Department of Environmental Quality
DLCD	Oregon Department of Land Conservation and Development
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
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
GWMA	Groundwater Management Area (DEQ designation)
IFA	Infrastructure Finance Authority
MGD	million gallons per day
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service, U.S. Department of Agriculture
OAR	Oregon Administrative Rule
OBDD	Oregon Business Development Department
OCS	Oregon Conservation Strategy
ODA	Oregon Department of Agriculture
ODE	Oregon Department of Energy
ODF	Oregon Department of Forestry
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation
OHA – DWP	Oregon Health Authority (formerly DHS) – Drinking Water Program
OMD - OEM	Oregon Military Department – Office of Emergency Management
OPRD	Oregon Parks and Recreation Department
ORS	Oregon Revised Statutes
OWEB	Oregon Watershed Enhancement Board
OWSCI	Oregon Water Supply and Conservation Initiative
SWCD	Soil and Water Conservation District
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFW	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WRC	Oregon Water Resources Commission
WRD, OWRD	Oregon Water Resources Department
WRIA	Water Resource Inventory Areas (State of Washington)