# Agency Roles and Actions

State agency actions are an important element of the Oregon Plan. A number of Oregon state agencies are responsible for water quality, water quantity, habitat protection, regulation of habitat alteration, and restoration activities, as well as fishery harvest management and production of hatchery fish. Each agency is given authority by legislative action and their capacity is limited by budget appropriations. The following describes each agency's mission and offers examples of agency Oregon Plan activities during the first half of the 2005-2007 biennium.

- The **Oregon Department of Agriculture** provides leadership, service, and regulatory functions for food production and processing, and protection of the agricultural natural resource base.
- The **Department of Environmental Quality** is responsible for protecting and enhancing Oregon's water and air quality and for managing the proper disposal of solid and hazardous wastes.
- The **Oregon Department of Fish and Wildlife** is responsible for all Oregon fish and wildlife resources and their habitats, including operating hatcheries, selling hunting and angling licenses, advising on habitat protection for Oregon's diverse wildlife populations, and educating the public on natural resource issues.
- The **State Forestry Department** acts on all matters pertaining to forestry, including collecting and sharing information about the conditions of Oregon's forests, protecting forestlands, and conserving forest resources.
- The **Oregon Department of Geology and Mineral Industries** is Oregon's centralized source of geologic information.
- The **Department of Land Conservation and Development** administers Oregon's statewide land-use planning program and Oregon's federally approved coastal-management program.
- The **Department of State Lands** manages grazing and agricultural land, forest land, off-shore land and estuarine tidelands, and submerged and submersible lands of the state's extensive navigable waterway system. The department administers the state's removal-fill law and is the lead agency for the protection and maintenance of wetlands resources.
- The **Oregon State Marine Board** is Oregon's recreational boating agency, dedicated to safety, education, and access.
- The mission of the **State Parks and Recreation Department** is to "provide and protect outstanding, natural, scenic, cultural, historic and recreational sites for the enjoyment and education of present and future generations." The department operates Oregon's state parks.
- The mission of the **Department of State Police** is to develop, promote and provide protection to the people, property and natural resources of the state, along with ensuring the state's safety and livability.
- The **Department of Transportation's** mission is to provide Oregonians with a safe, efficient transportation system that supports economic opportunity and livable communities. ODOT invests funding to retrofit and replace culverts that block fish passage across state highways.
- The **Water Resources Department's** core functions are to protect existing water rights, facilitate voluntary streamflow restoration, increase the understanding of the demands on the state's water resources, provide accurate and accessible water resource data, and facilitate water supply solutions.
- The **Oregon Watershed Enhancement Board** provides watershed improvement grants, technical guidance and assistance to local groups working with volunteer landowners to improve watershed health. OWEB also partners with other stakeholders, agencies, local governments, tribes, and industries to support watershed restoration efforts.

## Oregon Plan Teams

A network of interagency teams supports local and statewide conservation and restoration efforts.

- **Core Team** – provides senior management-level interagency policy coordination and direction to other Oregon Plan teams.
- **Outreach Team** – coordinates public communication and develops outreach and educational tools to support the Oregon Plan.
- **Monitoring Team** – coordinates monitoring, data management and analysis among state, federal and local agencies and partners.
- **Region Implementation Teams** – provides forums for agency managers and staff to coordinate efforts on regional Oregon Plan-related matters.

## Examples of 2005-2007 Agency Accomplishments

**Conservation Investments**

- OWEB awarded nearly $39 million to over 600 grants for watershed restoration and protection, technical assistance, education, monitoring, and watershed council support projects.
- DEQ awarded nearly $3 million through Nonpoint Source Pollution 319 Grants – 61 percent went toward on-the-ground project implementation.
- OPRD used approximately $500,000 of Salmon License Plate funds to implement fish passage structure design, large woody material placement, culvert replacement, invasive species treatment, riparian plantings, and monitoring in the Deschutes, Grande Ronde, John Day, North Coast, South Coast, and Willamette basins.

**Clean Water and Streamflow**

- All Agricultural Water Quality Management Area Plans and Rules are in place. ODA staff are now focused on implementation, including conducting 56 compliance investigations.
- DEQ is on schedule to complete TMDLs as approved by the U.S. EPA. By the end of 2006, the Willamette, Umpqua, Tenmile (South Coast) and Willow (Umatilla) TMDLs will be finalized and submitted to EPA for approval.
- WRD completed instream leases of 412 cfs; instream transfers of 18 cfs; allocations of Conserved Water of five cfs; and a total of 435 cfs restored between July 2005 and August 2006.

**Fish and Wildlife Habitat**

- Oregon state agencies and local stakeholders are participating with NMFS to develop salmon and steelhead recovery plans consistent with the ESA and Oregon's Native Fish Conservation Policy. The draft Coastal Coho Conservation Plan is complete and plans for other ESUs are being developed.
- ODFW's Fish Screening and Passage Program will coordinate the construction of more than 150 fish protection screens and will install 27 fishways to provide fish passage at artificial barriers. Between July 2005 and September 2006, 42 fish screening and three fish passage projects have been installed.
- ODFW completed a status review of all native salmonids and resident fish throughout the state with funding assistance from OWEB.
- In February 2006, the USFWS formally approved the Oregon Wildlife Action Plan known as the "Oregon Conservation Strategy."
- OWEB invested $3.7 million to protect 2,850 acres in the Deschutes, Lower Columbia, North Coast, Rogue, and Willamette basins.

**Regulation/Enforcement**

- ODA staff conducted routine inspections for 100 percent of the 616 CAFO permitted facilities – 84 percent are in compliance with their permit.
- DSL monitored 23 percent of the removal-fill permits and general authorizations issued during fiscal year 2005/2006 – approximately 50 percent were in compliance with permit conditions.
- OSP Oregon Plan Troopers completed 48 water pollution or habitat destruction investigations; 28 water quality investigations; 16 removal-fill laws investigations; six investigations of spills to land; and checks of 31,336 salmon and steelhead anglers for compliance with fish and wildlife laws.

# Voluntary Restoration

Voluntary restoration work on privately owned lands is the value added approach that the Oregon Plan delivers, compared to management efforts that rely solely on regulation. Private landowners – ranging from individuals to industries in rural and urban communities – are voluntarily conducting restoration work that contributes to sustaining watershed health, recovering listed fish species and improving water quality.

## Overview

No one knows the natural resources opportunities and challenges in local watersheds better than the people who live there. In Oregon, two locally based institutions – watershed councils and soil and water conservation districts – provide assistance to landowners to implement voluntary restoration. Between July 1, 2005 and September 20, 2006, councils and districts were the recipient of 89 percent of OWEB's competitive grant awards.

- Watershed councils (WC) are locally organized, voluntary, non-regulatory groups established to improve the condition of watersheds in their local area. They are comprised of people from the local community who work across jurisdictional boundaries and across agency mandates to look at the watershed more holistically. Councils monitor and assess watershed conditions, provide learning opportunities, build community, leverage funding, and implement restoration projects. Funding is provided from OWEB to support council capacity so they can effectively engage the participation of private landowners and local communities in restoration activities.
- Soil and water conservation districts (SWCD) are local government entities that provide the local link to landowners. The SWCDs complement the work of watershed councils. Funds were distributed through ODA to 45 SWCDs for conducting outreach and providing technical assistance to landowners interested in doing projects. This biennium, districts have helped to implement 663 projects to improve water quality, including CREP implementation, stream habitat improvements and management, grazing management, and nutrient management.

**The table to the right shows the status of all active (yet to be completed) grants, showing that there is a significant amount of watershed investment work in progress. OWEB tracks active grants, and works with grantees to help them complete grants in a timely manner.**

**Active Grants***
As of September 6, 2006

| Basin Name | Number of Projects | Total Awarded | Unspent Balance |
|---|---|---|---|
| Statewide | 10 | $1,096,192 | $704,603 |
| Deschutes | 65 | $2,958,957 | $1,514,932 |
| Grande Ronde | 47 | $1,762,006 | $1,185,228 |
| Hood | 21 | $562,430 | $269,399 |
| John Day | 86 | $2,901,197 | $1,768,421 |
| Klamath | 18 | $3,620,013 | $3,021,242 |
| Lakes | 31 | $3,540,112 | $1,506,988 |
| Lower Columbia | 23 | $1,327,609 | $671,136 |
| North Coast | 65 | $5,572,545 | $4,348,881 |
| Owyhee-Malheur | 56 | $2,338,735 | $1,715,778 |
| Powder | 23 | $2,266,475 | $1,351,260 |
| Rogue | 55 | $7,058,445 | $5,626,025 |
| South Coast | 49 | $3,857,681 | $2,624,455 |
| Umatilla | 37 | $1,962,910 | $1,386,343 |
| Umpqua | 40 | $2,535,268 | $1,413,387 |
| Willamette | 164 | $7,411,650 | $4,924,883 |
| **Total** | **790** | **$50,772,225** | **$34,032,962** |

*Includes 2006 Salmon Season Emergency Grants, USFS Partnership Grants, CREP Technical Assistance, and Willamette WREP

## Voluntary Restoration Award Winners

The **Walla Walla WC** was awarded the Watershed Management Council's national Walter C. Loudermilk Award for its restoration accomplishments and community education efforts.

The **Partnership for the Umpqua Rivers** has been named as a recipient of the 2006 Take Pride in America National Award, which recognizes the Roseburg-based watershed council for outstanding volunteer efforts on federal, state and local private lands.

The **Siuslaw River Basin Restoration Project** won the prestigious 2004 International Thiess Riverprize. Partners involved include, among others, the Siuslaw SWCD, the Siuslaw WC, the Siuslaw Institute, and Cascade Pacific RC&D.

## Summary of Accomplishments

The Watershed Restoration Outcomes table on page 3 shows the results of voluntary restoration work reported to the OWRI, IRDA, and GRMWP databases between 1995 and 2005. For 2004 and 2005:

- Private lands restoration was reported in every Oregon Plan reporting basin – nearly 1300 of the 3300 projects were completed on private lands.
- Landowner enrollment in CREP grew rapidly and nearly doubled the previous enrollment. By the end of 2005, enrollment totaled nearly 17,000 acres of riparian land (~1,400 stream miles).

SWCDs and WCs joined with OWEB and ODA to identify opportunities to share common messages and effectively work together to support cooperative conservation. Highlights of SWCD and WC activities in local communities:

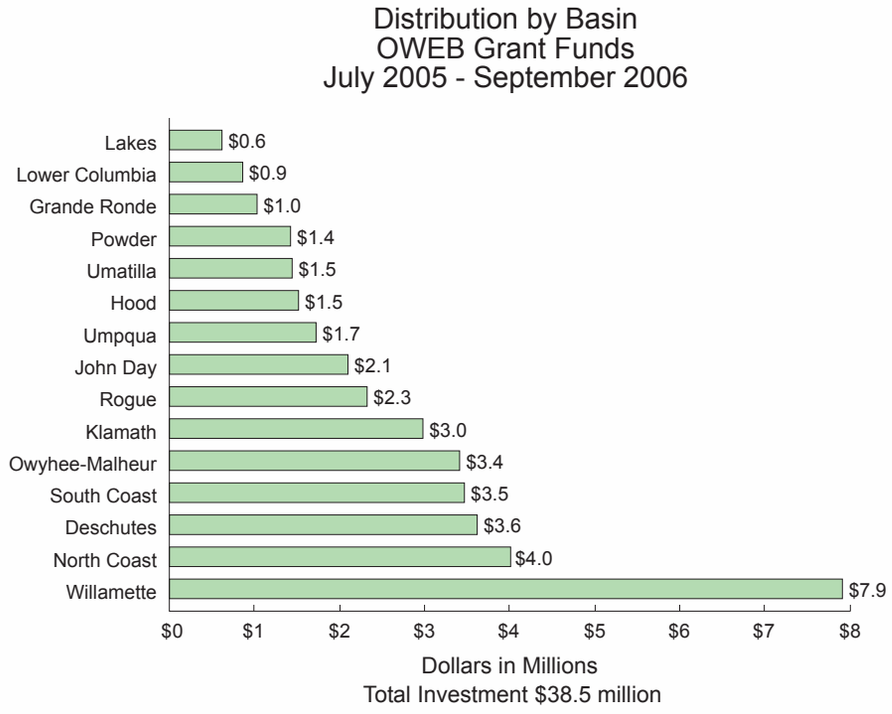
- SWCDs contacted 8,500 landowners and provided assistance to 4,800 landowners.
- SWCDs presented 128 workshops that attracted over 3,000 attendees.
- WCs volunteers worked over 100,000 hours in one year.
- WCs regularly host over 700 people each month at council meetings in local watersheds.

## Ongoing Voluntary Restoration Work

Watershed restoration projects can sometimes take several years to complete. The reporting of completed restoration work to the OWRI can occur several years after the OWEB Board decision approving a grant to initiate the work. Currently there are nearly 800 open OWEB grants, totaling over $50 million in funds committed. These dollars represent the investment of funds by OWEB in restoration work that is still in progress, but not yet reported. On average, 80 percent of OWEB awards are spent in the county in which the grant is awarded, supporting local jobs and communities. OWEB grant information is available online at www.oregon.gov/OWEB.

## Challenges Ahead

- Voluntary restoration efforts are dependent on available technical assistance. Continued funding for local WC and SWCD capacity, state and federal agency technical support, and technical assistance grants is crucial to ongoing landowner restoration efforts.
- OWEB is developing priorities throughout the state to guide its funding decisions. Over the next year, OWEB will work with local stakeholders to implement these priorities.
- Improved reporting from the agricultural landowner community and federal agencies, and better coordination between databases, is still needed to fully describe the progress of restoration efforts.
- Many Oregonians are still unaware of the opportunity to participate in the Oregon Plan, whether as a part of a watershed council, or as a landowner interested in restoration opportunities.



# Monitoring

By monitoring, Oregon is able to document watershed conditions, track changes in critical habitat and species over time, and evaluate the effectiveness of conservation and restoration efforts. It is essential to employ a number of different monitoring approaches to understand watershed health, track the success of projects, and measure progress towards meeting restoration priorities.

This biennium, the OWEB Board made strategic investments in monitoring, both in OWEB funded projects and in cooperative efforts to evaluate the status and trends of aquatic resources and conditions.

## General Observations

- High quality monitoring data for the Oregon Coast Coho ESU played a key role in NMFS's "no-list" decision. Continued support for monitoring in the Oregon Coastal Coho ESU is critical for the adaptive management of the species.
- Monitoring plays a key role in tracking change and demonstrating success, but limited funding could restrict the capacity to monitor statewide for status and trends of all species and populations of interest.
- There is a need to provide statistical design and analysis assistance for state agency and local watershed monitoring programs in order to ensure data gathering is not wasted and analysis can be completed.

## Oregon Plan Monitoring Team Members 2005-2007

- BLM
- DEQ
- DSL
- EPA
- NOAA Fisheries
- NWPCC
- ODA
- ODF
- ODFW
- OWEB
- USFS
- WRD

## Monitoring Accomplishments

- Sponsored the Statistics for Aquatic Resources: Monitoring, Modeling, and Management Workshop (2005) to advance the science of survey design, analysis, and modeling.
- Continued participation in Pacific Northwest Aquatic Monitoring Partnership and the Northwest Environmental Data Network regional monitoring efforts.
- Established an OWEB Effectiveness Monitoring Program, including the evaluation of riparian livestock exclusion and Western juniper removal projects.
- Held a Watershed and Aquatic Habitat Effectiveness Monitoring Workshop (2006) to gather input on OWEB's effectiveness monitoring program.
- The Willamette Basin and Umpqua Basin Explorers have been developed and provide natural resource information more readily available to the public. (www.oregonexplorer.info/)
- Continued OWEB investments in Lower Columbia River ESU, Coastal Coho ESU, and Umpqua Basin monitoring.
- OWEB invested nearly $800,000 in grants to local monitoring projects throughout Oregon (July 2005 to September 2006).
- Oregon completed and opened the Hatchery Research Center to answer scientific questions related to the role of hatchery programs in fish recovery.

For more information: www.oregon.gov/OWEB/MONITOR/

**Volunteers and staff monitor for fish passage at a newly replaced culvert (photo by Scappoose Bay WC)**

# Science Oversight

The Independent Multidisciplinary Science Team (IMST) is a 7-member team of scientists whose mission is to advise the State on matters of science related to the Oregon Plan for Salmon and Watersheds. The IMST was established by the Oregon Legislature in 1997 (ORS 541.409), and its members are jointly appointed by the Governor, Senate President, and Speaker of the House of Representatives. The team represents the disciplines of fisheries (including artificial propagation), stream ecology, forestry, range, watershed, and agricultural land management.

## General Observations

- IMST is currently evaluating information needs of the Oregon Plan and how the IMST can be most helpful to Oregon Plan partners and agencies in filling information gaps.
- IMST's most important finding thus far is the need to incorporate the landscape perspective into implementation of the Oregon Plan. The functioning of whole watersheds and salmonid populations can only be understood if one looks at the condition of all land ownerships over a long enough time period to discern human impact against background fluctuations in climate and ocean conditions and natural disturbance regimes.
- IMST has conducted external communications to agencies, the Legislature, and key stakeholders in the Oregon Plan to engage these entities in the formulation and prioritization of IMST work, and have IMST's products be relevant and useful to Oregon Plan implementation.

## Members of IMST

- Neil W. Christensen, Department of Crop and Soil Science, Oregon State University (emeritus)
- Michael J. Harte, College of Oceanic and Atmospheric Sciences, Oregon State University
- Robert M. Hughes, Department of Fisheries and Wildlife, Oregon State University
- Victor W. Kaczynski, Consulting Fisheries Scientist
- Nancy Molina, Cascadia Ecosystems
- Carl Schreck, Biological Resources Division, USGS, U.S. Department of Interior
- Carlton Yee, Yee Forest Associates

## Science Oversight Accomplishments

Accomplishments of the IMST in 2005-2007 focused on meeting State agency needs for scientific and technical reviews of key programs, initiatives, and assessments, including:

- ODFW Native Fish Status Report
- IMST/OWEB Restoration Effectiveness Monitoring Workshop.
- ODA Agricultural Water Quality Program Monitoring Guidebook.
- DEQ Technical Basis for Revising Turbidity Criteria.
- OWEB Research Proposal Process.
- IMST Scientific Literature Database.
- USFWS Federal Guidance Document on Sediment Removal from Oregon Streams.

## Ongoing work of the IMST:

- Impact of Urban and Rural Residential Land Uses on Watershed Function.
- Eastern Oregon Resources Management.
- Restoration Effectiveness Monitoring Recommendations.
- Scientific support to the ODF Dynamic Ecosystems Project.

Additional information about IMST activities, scheduled work, and completed reports is at: www.fsl.orst.edu/imst/index.html

# OWEB Board Observations

***The ongoing success of the Oregon Plan relies in part on the sustained investment in and participation from private landowners and citizens.*** Volunteer participation by landowners and citizens directly links local interests to watershed restoration actions. There is an ongoing need to ensure that state and local partners make it easy for landowners to participate, while continuing to get value from their contributions.

***The success of the Oregon Plan relies on sustained and sufficient investment in local watershed councils and soil and water conservation districts.*** Councils and districts provide the main connection between interested landowners and agencies to carry out restoration work. Adequate funding for councils and districts to do this work is critical. Many of these entities have very limited resources, making it difficult to sustain long-term strategies and partnerships.

***Significant public awareness of and participation in the Oregon Plan is critical to its long-term success.*** The Oregon Plan depends on the long-term involvement, commitment, and leadership of citizens to improve and maintain watershed health in their local communities. Involvement will be limited if citizens aren't aware of the Oregon Plan or know how they can participate.

***Long-term success of the Oregon Plan requires strong and persistent leadership from the Governor, the Legislature and local citizens.*** The Oregon Plan relies on the coordination and cooperation of many organizations, and individuals. The Governor's Office and Legislature provide important, high-level leadership to guide and support local and regional efforts.

***Successful implementation of the Oregon Plan depends on sustained and sufficient investments in state natural resource agencies.*** It is important that agencies have stable and adequate long-term funding to support programs and initiatives, and allow for strong participation and support for Oregon Plan goals and objectives. Long-term funding for these agencies and programs should be attained without compromising Measure 66 Lottery Fund investments for local communities.

***Adequate non-capital funding to support technical assistance, monitoring, and education needs is critical to ensure capital on-the-ground restoration funds are well-spent.*** In recent years, Measure 66 capital grant funds for restoration projects have steadily increased while non-capital grant funds have remained relatively static. An increased level of non-capital grant funds will increase technical support for local project design and lead to more robust monitoring to track and evaluate the progress of the Oregon Plan.

***Oregon Plan watershed enhancement projects support local jobs and services, and increase the long-term sustainability of the local economy.*** The health of local economies and watersheds are inextricably linked. Oregon Plan investments in watershed restoration and related projects benefit local communities. A study found that 80 percent of OWEB grant funds remain in the county where the grant is awarded, with every restoration dollar invested generating additional local economic stimulus.

***The Pacific Coastal Salmon Recovery Fund and the federal investment partnership are critical to the success of the Oregon Plan.*** Since 2000, Oregon Plan efforts have benefited from significant federal funds to complement state resources. Continued federal funds will be important to support local councils and districts, technical assistance, monitoring, education, and assessment work.

***OWEB will continue its focus on accountability***. Measure 66 Lottery Funds available for watershed health are increasing. OWEB will continue to ensure that funds are used properly and implement processes to select the most effective projects that meet strategic objectives.

# OWEB Board Recommendations

***Develop and implement priorities for restoration.*** Establishing clear priorities at a basin or other meaningful scale is needed to guide and focus restoration investments and future Oregon Plan initiatives. This biennium, local, state and federal participants have made significant progress in developing conservation and recovery plans, regional subbasin plans, and restoration priorities. Next biennium, Oregon Plan partners should move to implement those plans and priorities so that efforts are more strategically targeted to meet the most critical resource and community needs in each basin.

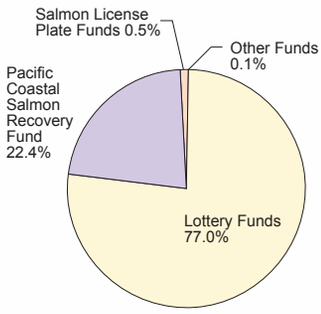
***Aggressively promote public awareness of and participation in the Oregon Plan.*** Successful implementation of the Oregon Plan over the long term will depend on informed backing and participation by Oregon's citizens. Enhanced and coordinated outreach efforts are needed to develop a common understanding of the Oregon Plan among all Oregonians.

***Streamline and expedite permitting for restoration projects.*** Conservation opportunities will be more appealing to private landowners if they have confidence in the processes required to do the work. Landowners who engage in restoration efforts need more certainty that projects will be implemented in a timely manner. Oregon Plan partners should continue to revise and refine permitting and other project implementation steps to ensure that the public approval processes move forward as quickly and efficiently as possible.

***Track restoration and recovery trends, and improve information accessibility.*** Sustained program support and investment is needed to maintain and expand Oregon's ability to monitor, quantify, and report progress of ongoing restoration and recovery efforts. Ensuring the effectiveness of the Oregon Plan depends on our work and commitment to collect and assess monitoring data and report findings to the public. OWEB should continue efforts to improve the accessibility of data and information so the public and plan partners have the information they need.

***Continue emphasis on strong leadership, interagency communication, and coordination.*** Oregon Plan outcomes can be more effectively addressed if agencies work together to address joint agency goals and objectives. The Oregon Plan teams (Core, Outreach, Monitoring, and Regional Implementation) should be revitalized to integrate efforts and enhance agency communication.

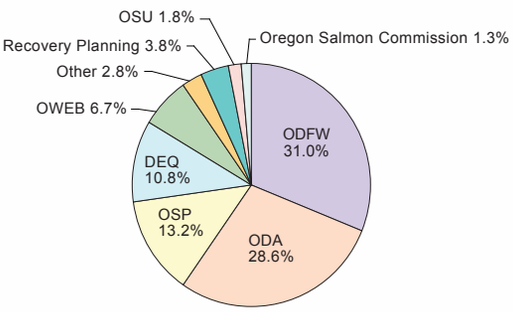
OWEB Funding Sources
July 2005 - September 2006




$85.7 Million Total

**In the 2005-2007 Biennium, the majority of OWEB's funds were from Measure 66 State Lottery dollars (77%) and the federal Pacific Coastal Salmon Recovery Fund (22%). This funding can be split into two major categories– grant awards and non-competitive awards.**

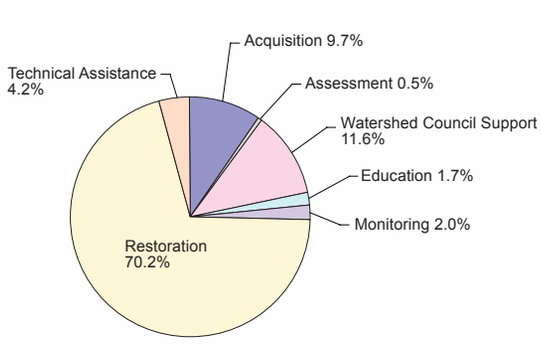
Allocation of Non-Competitive Funds
July 2005 - September 2006




$47 Million Total

**Non-competitive awards were made to other entities to support Oregon Plan activities either through legislative appropriation or OWEB Board decisions. More than 87% of the funds were appropriated by the Legislature to serve Oregon Plan needs.**

Distribution by Type




$38.6 Million Total

**A total of $38.6 million in OWEB grant funds was available for local voluntary restoration actions during the period of July 2005 - September 2006. The majority of funding was awarded for on-the-ground watershed restoration (70%).**

## Acronyms

| | |
|---|---|
| BLM | U.S. Bureau of Land Management |
| BPA | Bonneville Power Administration |
| CAFO | Confined Animal Feeding Operation |
| cfs | cubic feet per second |
| CREP | Conservation Reserve Enhancement Program |
| DEQ | Oregon Department of Environmental Quality |
| DSL | Oregon Department of State Lands |
| EPA | U.S. Environmental Protection Agency |
| ESA | Endangered Species Act |
| ESU | Evolutionarily Significant Unit |
| EQIP | Environmental Quality Incentives Program |
| GRMWP | Grande Ronde Model Watershed Program |
| IMST | Independent Multidisciplinary Science Team |
| NOAA | National Oceanic and Atmospheric Administration |
| NFCP | Native Fish Conservation Policy |
| NFF | National Forest Foundation |
| NFWF | National Fish and Wildlife Foundation |
| NMFS | National Marine Fisheries Service |
| NRCS | U.S. Natural Resources Conservation Service |
| NWPCC | Northwest Power and Conservation Council |
| ODA | Oregon Department of Agriculture |
| ODF | Oregon Department of Forestry |
| ODFW | Oregon Department of Fish and Wildlife |
| ODOT | Oregon Department of Transportation |
| OECDD | Oregon Economic and Community Development Department |
| OPRD | Oregon Parks and Recreation Department |
| OSP | Oregon State Police |
| OSU | Oregon State University |
| OWEB | Oregon Watershed Enhancement Board |
| OWRI | Oregon Watershed Restoration Inventory |
| PCSRF | Pacific Coastal Salmon Recovery Fund |
| PNAMP | Pacific Northwest Aquatic Monitoring Partnership |
| REO | U.S. Regional Ecosystem Office |
| RC&D | Resource Conservation and Development |
| SWCD | Soil and Water Conservation District |
| TMDL | Total Maximum Daily Load |
| USDI | U.S. Department of the Interior |
| USFWS | U.S. Fish and Wildlife Service |
| USFS | U.S. Forest Service |
| USGS | U.S. Geological Survey |
| WC | Watershed Council |
| WRD | Oregon Water Resources Department |

**Oregon Watershed Restoration Inventory**
(OWRI): Bobbi Riggers. The OWRI is the primary statewide database for watershed restoration project information voluntarily submitted by restoration practitioners. The database includes completed projects funded by private landowners as well as projects funded with public monies such as OWEB grants. http://www.oregon.gov/OWEB/MONITOR/OWRI.shtml

**Federal Interagency Restoration Database**
(IRDA): Jim Edmonds, Jeanne Keyes, Debra Kroeger, Jeff Uebel, and Al Doelker. Jointly administered by the BLM and USFS, the database represents completed projects implemented on federal land and/or funded by Title II. http://www.reo.gov/restoration/

**Grande Ronde Model Watershed Program**
(GRMWP): Cecilia Noyes. The GRMWP is composed of local representatives, landowners, tribes, and agency personnel involved with the multiple uses of natural resources within the Grande Ronde River Basin. http://www.fs.fed.us/pnw/modelwatershed/

**Oregon Land Trusts**
The Nature Conservancy, City of Portland, North Coast Land Conservancy, McKenzie River Trust, Elk River Land Trust, and Trust for Public Lands provided data on land protection and conservation easement projects.

## Data Sources

GIS and Cartography by:
University of Oregon InfoGraphics Lab,
Department of Geography:
Ken Kato, Asst. Director, Project Mgr.
Erik Steiner, Lead Designer
James E. Meacham, Lab Director

Researchers:
Mike Engelmann
Nick Martinelli

Student Cartographers:
Colin Zook
Nicole Lamb
Jacob Blair
Dustin Welch

Change in Non-Federal Lands: ODF
Elevation: USGS (10 meter DEM)
Fish Passage: ODFW
Fish Screens/Fishways: ODFW
Instream leases and transfers: WRD
Land Cover: Oregon Natural Heritage Program (GAP Analysis)
Land Ownership: BLM
Oregon Plan Basins: OWEB
OWEB Grant Information: OWEB
Populated Places: USGS (GNIS)
Population: PSU Population Research Center
Projected Agency Investments: respective agencies
Roads: ODOT
Streams: EPA, StreamNet, USGS
Water Quality Index: DEQ
Federal Investments: NRCS and BPA

Writer/Editor: Melissa Leoni
Contributor: Jessica Campbell
Layout and Design: John Ledges Ame

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Cover photos digitally altered from originals by:
Top: Salmon River Estuary by Carey Smith
Middle: John Day River in 1935 by Al Monner
Bottom: Willamette Valley Historical Postcard

# OWEB Board Members

OWEB is led by a 17-member policy oversight and decision-making board. Board members represent the public at large, tribes, state natural resource agency boards and commissions, the Oregon State University Extension Service, and federal natural resource agencies.

**Daniel Heagerty** (Board Co-Chair) is the Senior Vice President at David Evans and Associates, Inc., in Portland. He serves as a public member of OWEB.

**Jane O'Keeffe** (Board Co-Chair) is a self-employed natural resource consultant. She represents the public at large on the board and lives in Adel.

**Miles Brown** serves as the Branch Chief for Rangeland Resources, Recreation and Wilderness for the Oregon/Washington Bureau of Land Management Office. He represents BLM on the Board.

**Bobby Brunoe** is the Natural Resource Policy Planner for the Confederated Tribes of the Warm Springs Reservation. He fills the public at large (tribal representative) position on the board and lives in Bend.

**Dan Carver** owns the Imperial Stock Ranch in Maupin. He also chairs the marketing committee of the Oregon Department of Agriculture and serves on its board, which he represents on OWEB.

**Alan Christensen** is the Assistant Director for Natural Resources for the U.S. Department of Agriculture Forest Service in Region 6. He represents the U.S. Forest Service on the board.

**Skip Klarquist** serves as representative of the Oregon Fish and Wildlife Commission, and he also serves on the board of the Oregon Wildlife Heritage Foundation. He is an attorney in Portland.

**Meta Loftsgaarden** is the Partnership Liaison for the USDA Natural Resources Conservation Service, which she represents on the board.

**Jim Nakano** is a Malheur County Commissioner. He lives in Ontario and serves as a public member of OWEB.

**Dave Powers** is the Regional Manager for Forests and Rangelands at the U.S. Environmental Protection Agency, which he represents on the board.

**Scott Reed** is the Dean and Director of the Oregon State University Extension Service, which he represents on the board.

**Patricia Smith** is a co-owner of William Smith Properties. She serves as a public member of the board and lives in Bend.

**Diane Snyder** is Executive Director of Wallowa Resources based in Enterprise. She serves as the representative from the Oregon Board of Forestry.

**Michael Tehan** is the Director of the Oregon State Habitat Office for the National Marine Fisheries Service, which he represents on the board.

**Dan Thorndike** is General Counsel and Corporate Secretary-Treasurer for Medford Fabrication. He chairs the Water Resources Commission, which he represents on the board.

**Helen Westbrook** served as Clatsop County Commissioner until December 2006. She represents the public at large on the board and lives in Seaside.

**Ken Williamson** heads the School of Chemical, Biological, and Environmental Engineering at Oregon State University in Corvallis. He serves as representative of the Environmental Quality Commission.

## OWEB's Mission

"To help create and maintain healthy watersheds and natural habitats that support thriving communities and strong economies."