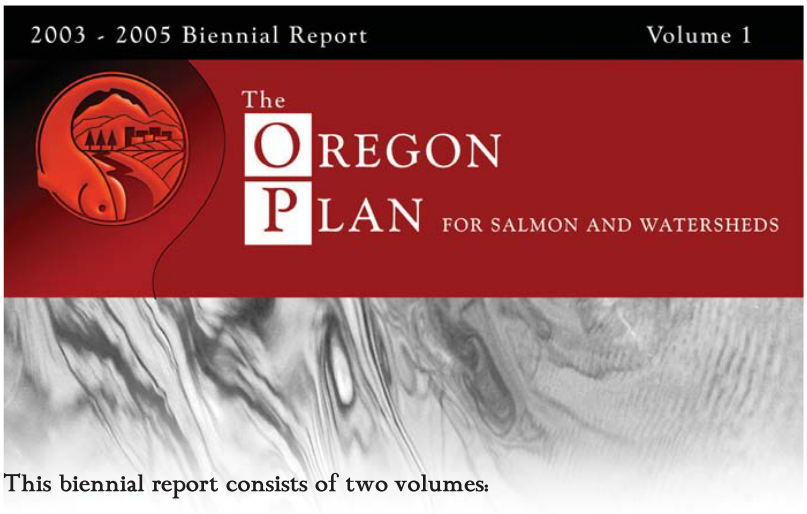
2003 - 2005 Biennial Report

Volume 1

The OREGON PLAN FOR SALMON AND WATERSHEDS



This biennial report consists of two volumes:

- **Volume 1** is a statewide review of Oregon Plan implementation. The report summarizes basin-level accomplishments and investments related to water quality improvements, fish recovery, and watershed health. The report also provides an overview of state agency actions and recommendations to enhance the effectiveness of the Oregon Plan.

- **Volume 2** summarizes Oregon's assessment of the Oregon Coastal Coho Evolutionarily Significant Unit (ESU). *(Volume 2 is scheduled to be printed June 2005, after review comments are received and Oregon's draft report is revised and finalized. Key elements of Oregon's draft conclusions are summarized in Volume 1.)*

The Oregon Coastal Coho Evolutionarily Significant Unit (ESU) is being considered for listing as threatened under the federal Endangered Species Act (ESA).

The State of Oregon has completed a draft comprehensive assessment of the status of the fish and the ongoing conservation efforts for this ESU in order to inform the continued management of these efforts as well as the federal government's listing decision.

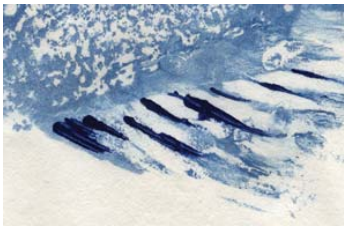
Oregon's assessment includes:

1. Evaluating the biological viability (sustainability) of the ESU.
2. Identifying risk factors contributing to the decline of coho or potentially threatening viability in the foreseeable future.
3. Evaluating the status and trends in management programs, restoration work, habitat, and other conditions in place to address these risk factors and maintain or enhance the continued viability of the ESU.

Together, Volumes 1 and 2 report on the most recent Oregon Plan actions and accomplishments and lay the groundwork for continuing and improving its effectiveness.

The Oregon Plan for Salmon and Watersheds Mission:

To restore the watersheds of Oregon and to recover the fish and wildlife populations of those watersheds to productive and sustainable levels in a manner that provides substantial environmental, cultural, and economic benefits.



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DESCRIPTION OF VOLUME 1

OREGON PLAN – STATEWIDE PERSPECTIVES

Volume 1 Part I

Maps and a summary of recent restoration work completed for all 15 Oregon Plan reporting basins.

Volume 1 Part II

A statewide overview of Oregon Plan implementation.

The Oregon Plan for Salmon and Watersheds *is a framework for addressing Oregon's natural resource challenges in a coordinated, sustainable fashion. The Oregon Plan brings together a wide range of governmental and non-governmental entities to implement conservation strategies and actions that support recovery of listed fish species, water quality improvements, and restoration of watersheds that support the economy and quality of life in Oregon. Four key elements of the Plan are addressed in this implementation report:*

- ***Agency actions –*** *regulatory, management and technical assistance programs by state and federal government agencies.*
- ***Voluntary restoration –*** *restoration on private and public lands conducted with a variety of private and public funds.*
- ***Monitoring –*** *an interdisciplinary effort to evaluate status and trends of selected fish populations, water quality, habitat, and other environmental conditions that affect listed fish species and watershed health.*
- ***Science oversight –*** *analysis of Oregon Plan activities by Oregon's Independent Multidisciplinary Science Team (IMST).*

Volume 1 Part III

Observations and recommendations of the OWEB Board intended to facilitate improvements in implementation of the Oregon Plan.

ABSTRACT OF FINDINGS FROM VOLUME 2*

OREGON PLAN – OREGON COASTAL COHO ESU ASSESSMENT

The State of Oregon is developing a comprehensive assessment of the status of Oregon Coastal Coho and the ongoing Oregon Plan conservation efforts within the coho's designated Evolutionarily Significant Unit along the Oregon coast. The assessment will provide the basis for a conservation plan that will establish goals for rebuilding coho populations and strategically prioritize actions to meet the goals. The assessment will also inform the federal government's listing decision for coho under the federal Endangered Species Act.

The following findings are from the January 2005 draft coastal coho assessment. The state expects to finalize the assessment in April 2005. The Volume 2 report on the assessment will be available in June 2005.

The Oregon Coastal Coho ESU is biologically viable, which means coho populations generally demonstrate sufficient abundance, productivity, distribution, and diversity to be sustained under current conditions or conditions somewhat more adverse than the most recent period of poor survival during the 1980s and 1990s.

Historical land, water, and fish management activities that were the major contributing factors for the legacy of coho declines have been stopped.

Conservation efforts have addressed the primary harvest and hatchery-related threats to ESU viability; ongoing conservation efforts will likely further reduce hatchery-related threats for some coho populations within the ESU. Primary habitat-related threats to coho viability are being addressed through ongoing conservation efforts.

It is unlikely that conditions currently supporting viability of the ESU will change so rapidly or dramatically as to preclude future, timely detection and protective action under Oregon management programs or the federal ESA.

Ongoing vigilance regarding conservation and restoration programs is necessary to sustain and improve viability of the ESU, most notably the responsiveness of these programs to variation in marine survival.

Opportunities to further strengthen the ESU's current viability are identified. Specifically, enhancement of complex overwinter rearing habitat provides the greatest potential to improve productivity of the ESU as a whole, representing the best opportunity to improve 13 of 19 coho populations that comprise the ESU.

A diverse set of conditions supports the conclusion that this ESU will maintain its viability into the foreseeable future. This set of conditions includes laws, management programs, monitoring, environmental conditions, and societal networks. In concert, these conditions serve to sustain and improve future viability of the ESU by: (1) reversing many of the environmental alterations and fishery impacts caused by historical management practices; (2) conserving existing conditions that support viability of the ESU; (3) creating future environmental conditions, based on an understanding of primary threats to individual populations that will further improve viability of the ESU in fulfillment of Oregon Plan objectives; and (4) maintaining a comprehensive monitoring program to allow adaptive management of conservation efforts as new information is gained.

* Oregon Coastal Coho Assessment Part 1: Synthesis of Viability Analysis and Evaluation of Conservation Efforts. IMST, Stakeholder Team, NOAA Fisheries and Public Review Draft. State of Oregon. January 31, 2005.

Key to Basin Layouts

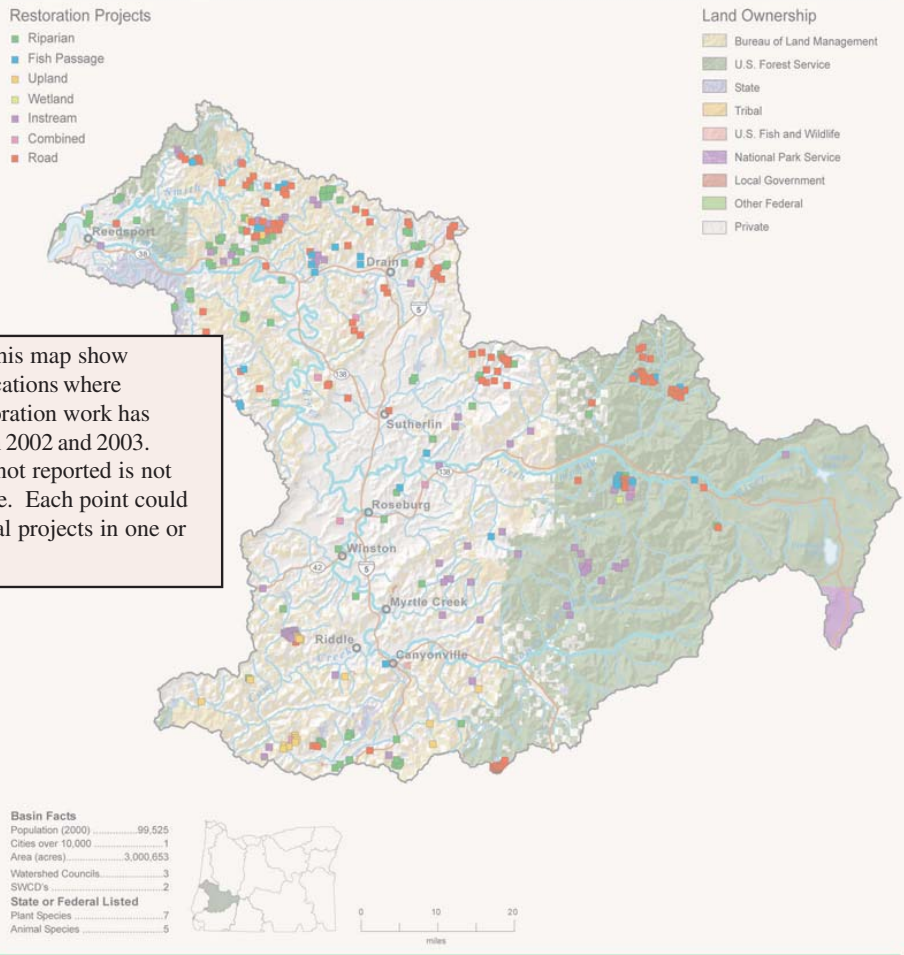
These two pages explain the material reported for each of the 15 Oregon Plan reporting basins represented in this report.

This section provides some background on the geologic, cultural, economic, and biologic character of the basin.

Umpqua Basin

The Umpqua is one of only two Oregon rivers that have headwaters in the Cascade mountains and cut through the Coast Range to the Pacific Ocean. Douglas fir forests of the Umpqua basin are legendary for their productivity and provide a foundation for the timber industry, local economies, and strong communities in this basin. Spring chinook and summer steelhead runs to the North Umpqua River are relatively healthy and support world famous fisheries. Lowland meandering interior valleys support considerable ranching activity. Whitetail deer have recovered from low numbers and are proposed for removal from the federal Endangered Species Act protection in this basin. The Umpqua River enters the Pacific Ocean in the center of Oregon's dune country near Reedsport.

Completed and Reported Restoration 2002-2003

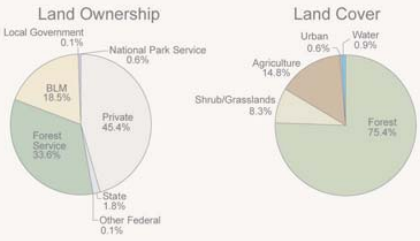


The points on this map show approximate locations where completed restoration work has been reported in 2002 and 2003. Work that was not reported is not represented here. Each point could represent several projects in one or several years.

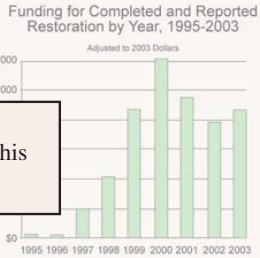
This section will note a few key restoration issues common to the basin.

Restoration Issues

- Conserve and restore channel complexity in low gradient stream segments that are high intrinsic potential for coho salmon.
- Restore streamflows in high priority areas.
- Improve water quality in high priority areas.
- Address fish passage in the Umpqua Basin using biological priorities across ownerships.
- Coordinate implementation of CREP to address water temperature.

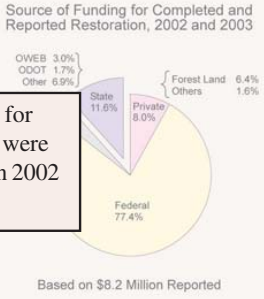


Investments



Total reported funds for restoration reported for this basin, 1995-2003.

The information here reports grants approved by the OWEB Board during the 2003 - 2005 biennium.



Total of all fund sources for restoration projects that were complete and reported, in 2002 and 2003 only.

These figures refer only to restoration that was complete, reported, and accessible to OWEB.

Accomplishments

- For the past two years the Umpqua Hydro Project has received the National Hydro Association Outstanding Stewardship of America's River Award.
- Numerous key fish passage barrier culverts were replaced in the basin both on private and public lands.
- Large wood has been added to streams in the basin to improve habitat complexity for anadromous and resident species.

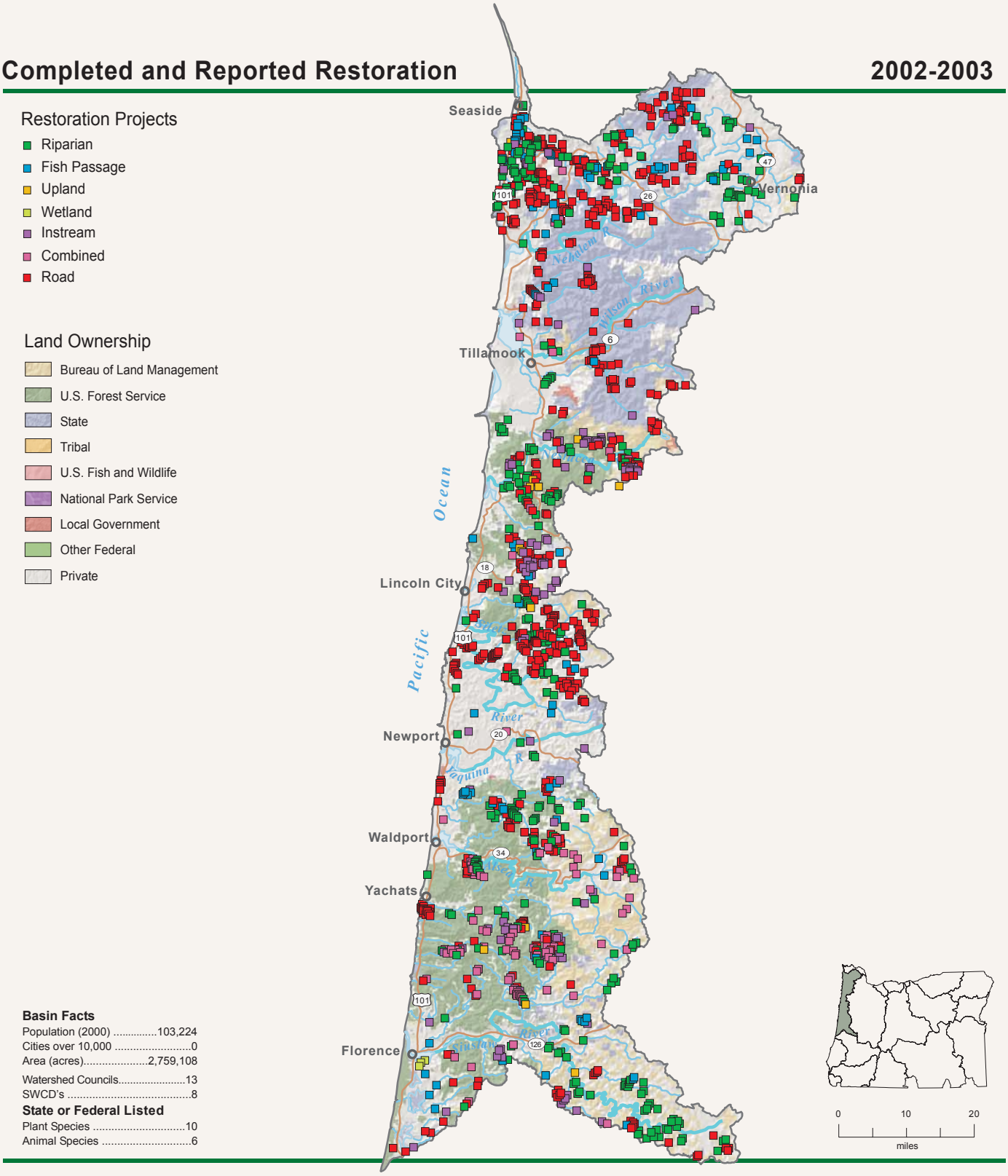
This section will provide a few key restoration accomplishments that deserve broad recognition.

North Coast Basin

Composed of eight modestly sized, unobstructed tributaries to the Pacific Ocean, the North Coast basin supports coho, chum, and chinook salmon, cutthroat trout, and steelhead. Coho salmon in this basin are currently listed as threatened under the federal Endangered Species Act. Fall chinook runs are relatively healthy and support world famous fisheries. Douglas fir and Western Hemlock forests of the coast range support a strong forest industry.

The Tillamook State Forest, site of the legendary Tillamook Burn in 1933, is beginning to come into harvestable condition. Rivers in this basin are underlain by basalt or sandstone geology with lush forest cover, and are primarily privately managed. The Tillamook County Creamery supports a strong dairy industry in the Tillamook Bay and Nestucca drainages. Estuaries often host recreational fishing and some are a home base for commercial fishing fleets.

Completed and Reported Restoration 2002-2003



Basin Facts

Population (2000) 103,224
Cities over 10,000 0
Area (acres).....2,759,108
Watershed Councils.....13
SWCD's 8

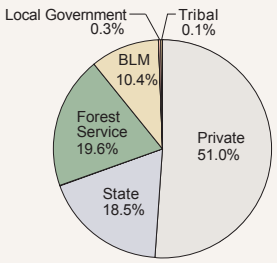
State or Federal Listed

Plant Species 10
Animal Species 6

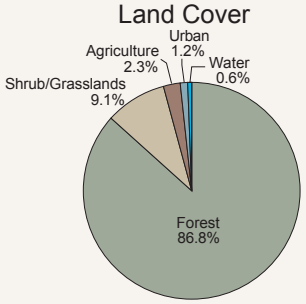
Restoration Issues

- Increase channel complexity in low gradient stream segments that are high intrinsic potential for coho salmon.
- Complete inventory and prioritize restoration of fish passage barriers.
- Restore floodplain connectivity to straightened streams and incised channels.
- Protect low gradient habitats.
- Address water quality issues to comply with TMDL's.
- Treat roads and agricultural areas to reduce sediment delivery to streams.

Land Ownership

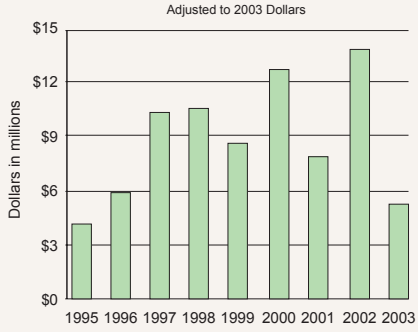


Land Cover

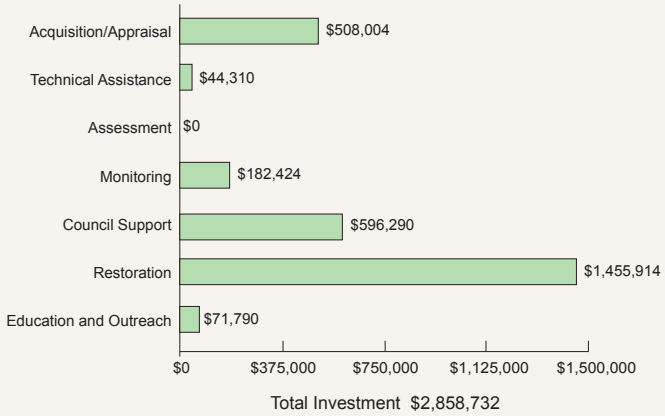


Investments

Funding for Completed and Reported Restoration by Year, 1995-2003

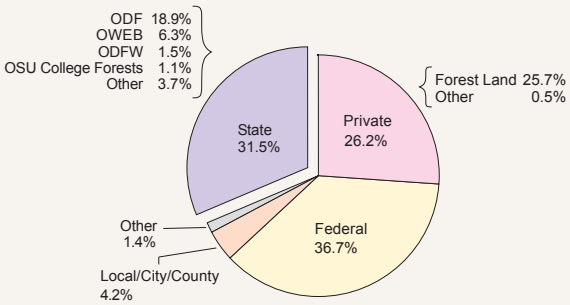


OWEB Investment in Restoration and Capacity
2003–2005 Biennium



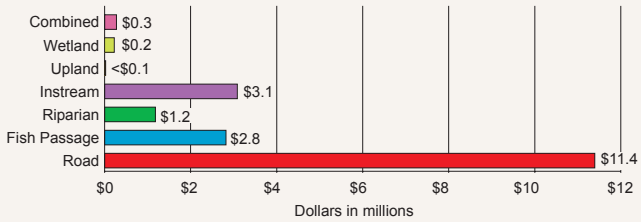
Total Investment $2,858,732

Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $18.9 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



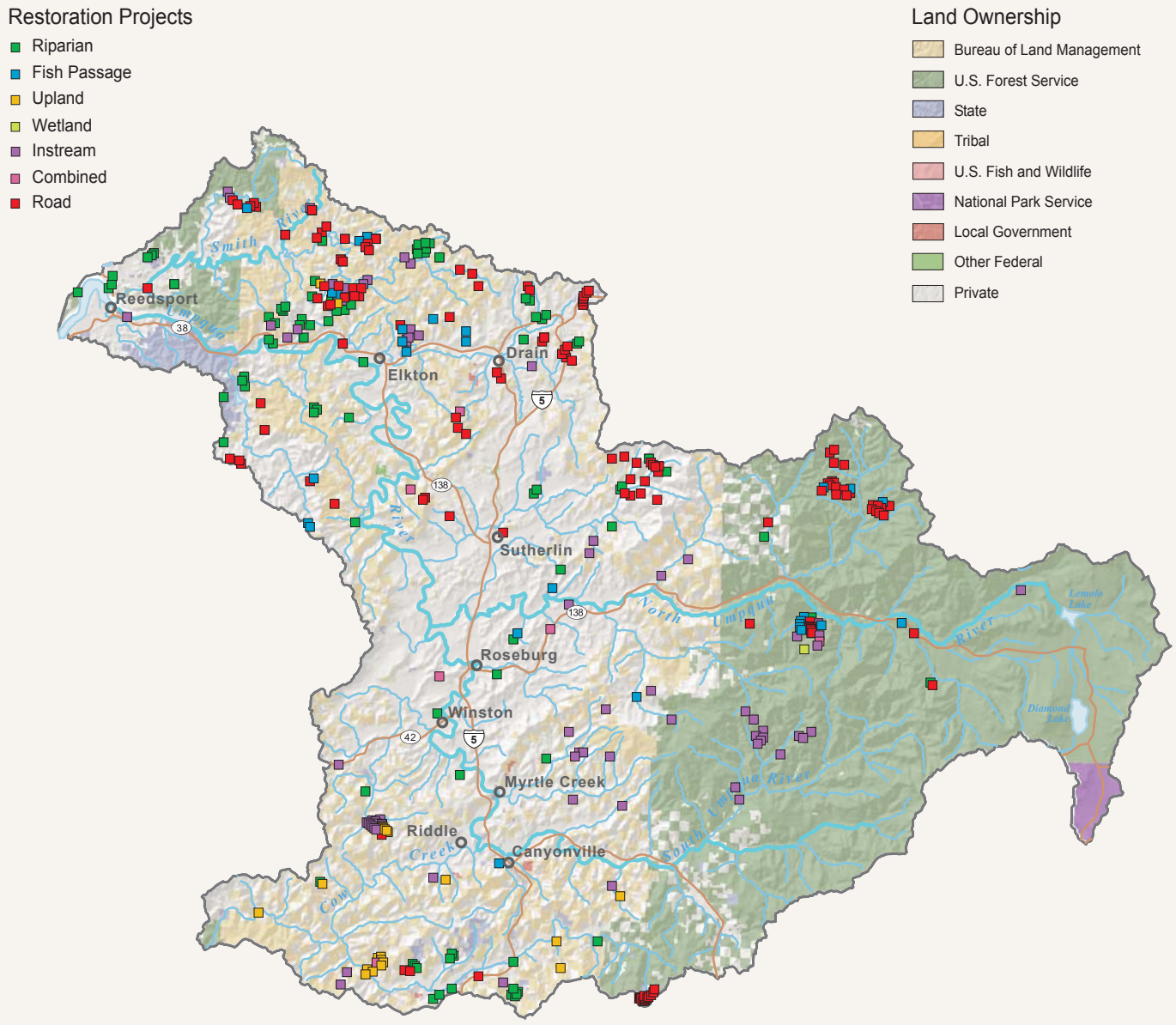
Accomplishments

- Large wood placement projects were implemented in six watersheds.
- Many fish passage barriers (culverts) were replaced across the basin.
- Two significant stream channel construction/reconfiguration projects were implemented to deal with previously ditched and channelized streams.
- Protected more than 600 acres of low gradient stream habitat.
- Three watershed councils implemented monitoring projects that provided information to municipalities addressing water quantity/flow and bacteria issues.
- Watershed councils and SWCDs improved their partnerships.
- In 2004, Siuslaw Basin partners won the $100,000 International Riverfoundation's Theiss River*prize* for cooperative restoration efforts on Karnowsky and Deadwood creeks.
- The Necanicum Watershed Council implemented several riparian planting projects utilizing the R.E.A.L. (restoration enhancement and learning) crew (developmentally handicapped adults). The Lower Nehalem Watershed Council began to utilize a R.E.A.L. crew in some of their basin riparian planting projects as well.

Umpqua Basin

The Umpqua is one of only two Oregon rivers that have headwaters in the Cascade mountains and cut through the Coast Range to the Pacific Ocean. Douglas fir forests of the Umpqua basin are legendary for their productivity and provide a foundation for the timber industry, local economies, and strong communities in this basin. Spring chinook and summer steelhead runs to the North Umpqua River are relatively healthy and support world famous fisheries. Lowland meandering interior valleys support considerable ranching activity. Whitetail deer have recovered from low numbers and are proposed for removal from the federal Endangered Species Act protection in this basin. The Umpqua River enters the Pacific Ocean in the center of Oregon's dune country near Reedsport.

Completed and Reported Restoration 2002-2003

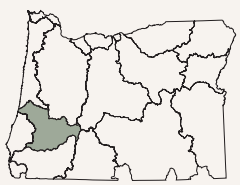


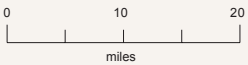
Basin Facts

Population (2000)	99,525
Cities over 10,000	1
Area (acres)	3,000,653
Watershed Councils	3
SWCD's	2

State or Federal Listed

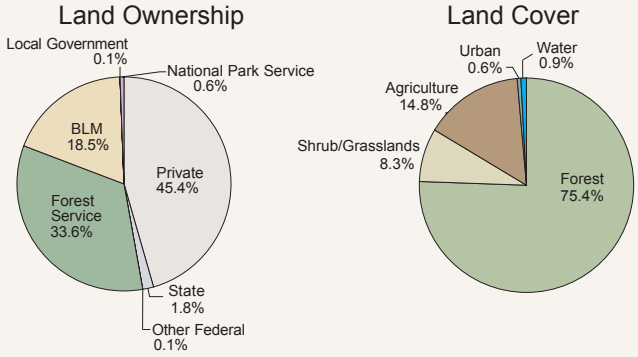
Plant Species	7
Animal Species	5



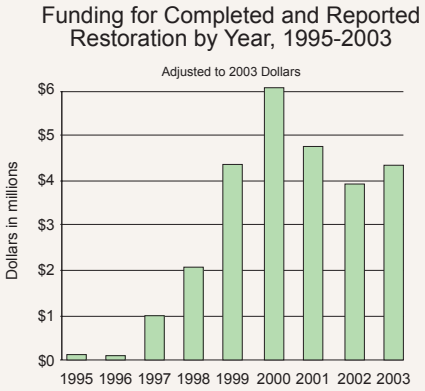


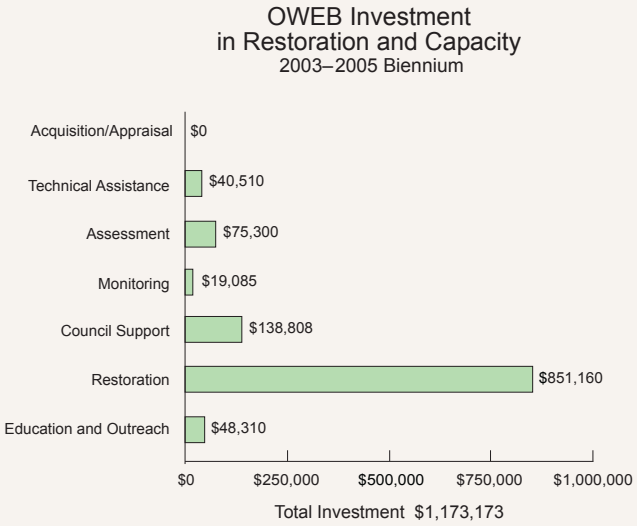
Restoration Issues

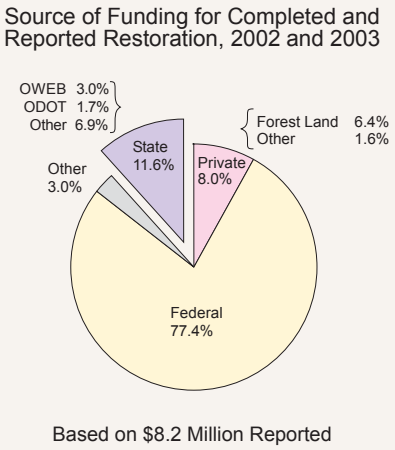
- Conserve and restore channel complexity in low gradient stream segments that are high intrinsic potential for coho salmon.
- Restore streamflows in priority salmonid rearing areas.
- Improve water quality in high priority areas.
- Address fish passage in the Umpqua Basin using biological priorities across ownerships.
- Coordinate implementation of CREP to address water temperature.



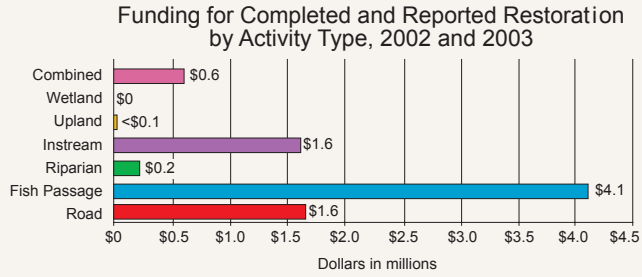
Investments







Based on $8.2 Million Reported



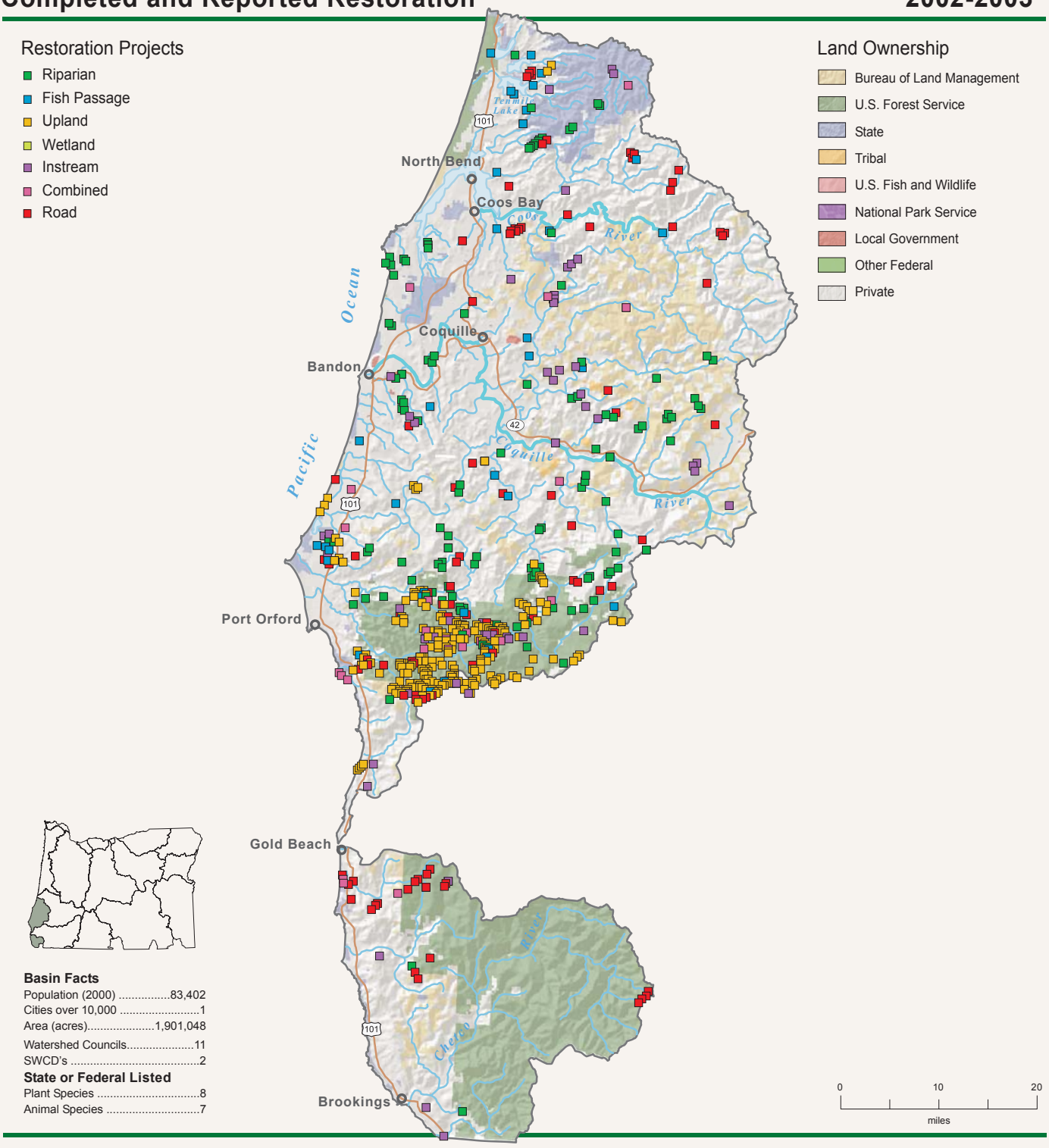
Accomplishments

- For the past two years the Umpqua Hydro Project has received the National Hydropower Association's Outstanding Stewardship of America's Rivers Award.
- Numerous key fish passage barrier culverts were replaced in the basin both on private and public lands.
- Large wood has been added to streams in the basin to improve habitat complexity for anadromous and resident species.

South Coast Basin

Two types of drainages lie in the South Coast Basin. At the north end of the basin, the medium-sized Coos and Coquille rivers headwater in the Coast Range and flow to the ocean across the Coos Bay dune sheet. Further south, a number of relatively smaller streams (the Floras, Sixes, Elk, Winchuck, Hunter Creek, Chetco, and Pistol rivers) headwater primarily in the Klamath Mountains. Forestry, ranching, agriculture, commercial and recreational fishing, and tourism are significant factors in the economy of communities in the basin. Significant portions of marine terraces in this basin have been converted to cranberry or lily production. The Coquille Valley is a cattle and dairy producing region. Several of the watersheds in the southern part of this basin were affected by wildfires during summer 2002.

Completed and Reported Restoration 2002-2003



Basin Facts

Population (2000)	83,402
Cities over 10,000	1
Area (acres)	1,901,048
Watershed Councils	11
SWCD's	2

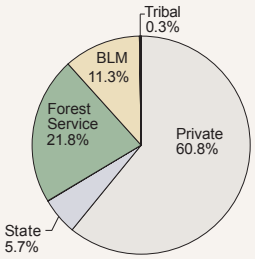
State or Federal Listed

Plant Species	8
Animal Species	7

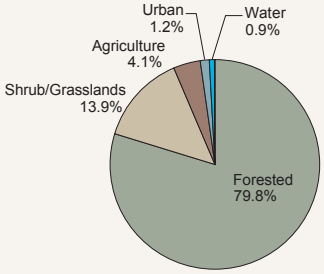
Restoration Issues

- Conserve and restore channel complexity in low gradient stream segments that have high intrinsic potential for coho salmon.
- Restore floodplain connectivity to straightened streams and incised channels.
- Protect low gradient habitats.
- Address water quality issues, especially temperature, through vegetation management of riparian areas.
- Treat roads and agricultural areas to reduce sediment delivery to streams.

Land Ownership

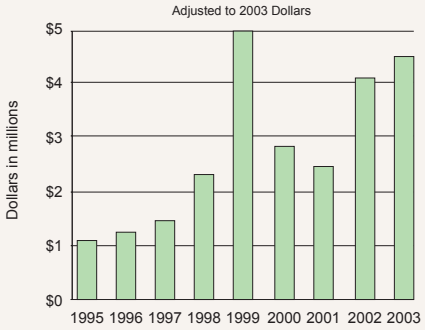


Land Cover

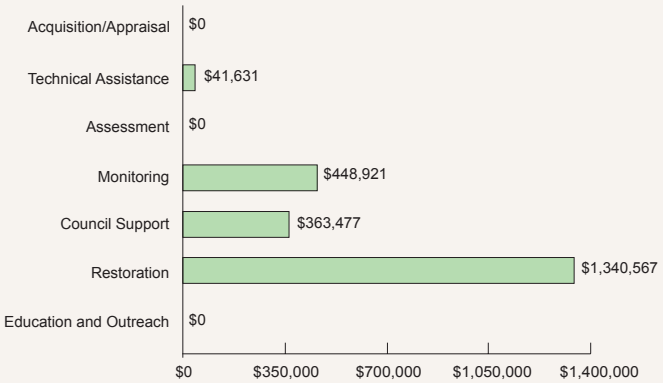


Investments

Funding for Completed and Reported Restoration by Year, 1995-2003

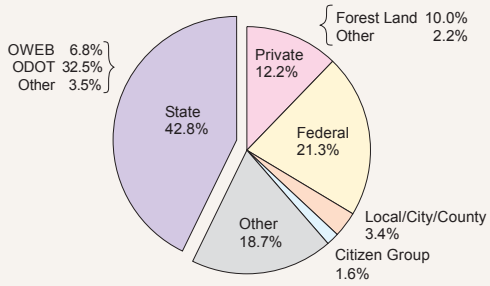


OWEB Investment in Restoration and Capacity
2003–2005 Biennium



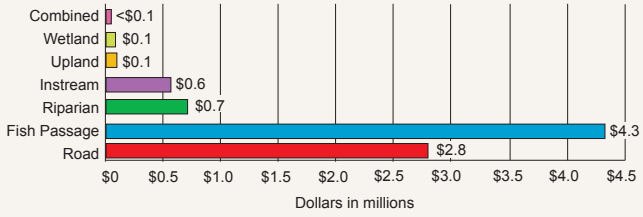
Total Investment $2,194,596

Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $8.6 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



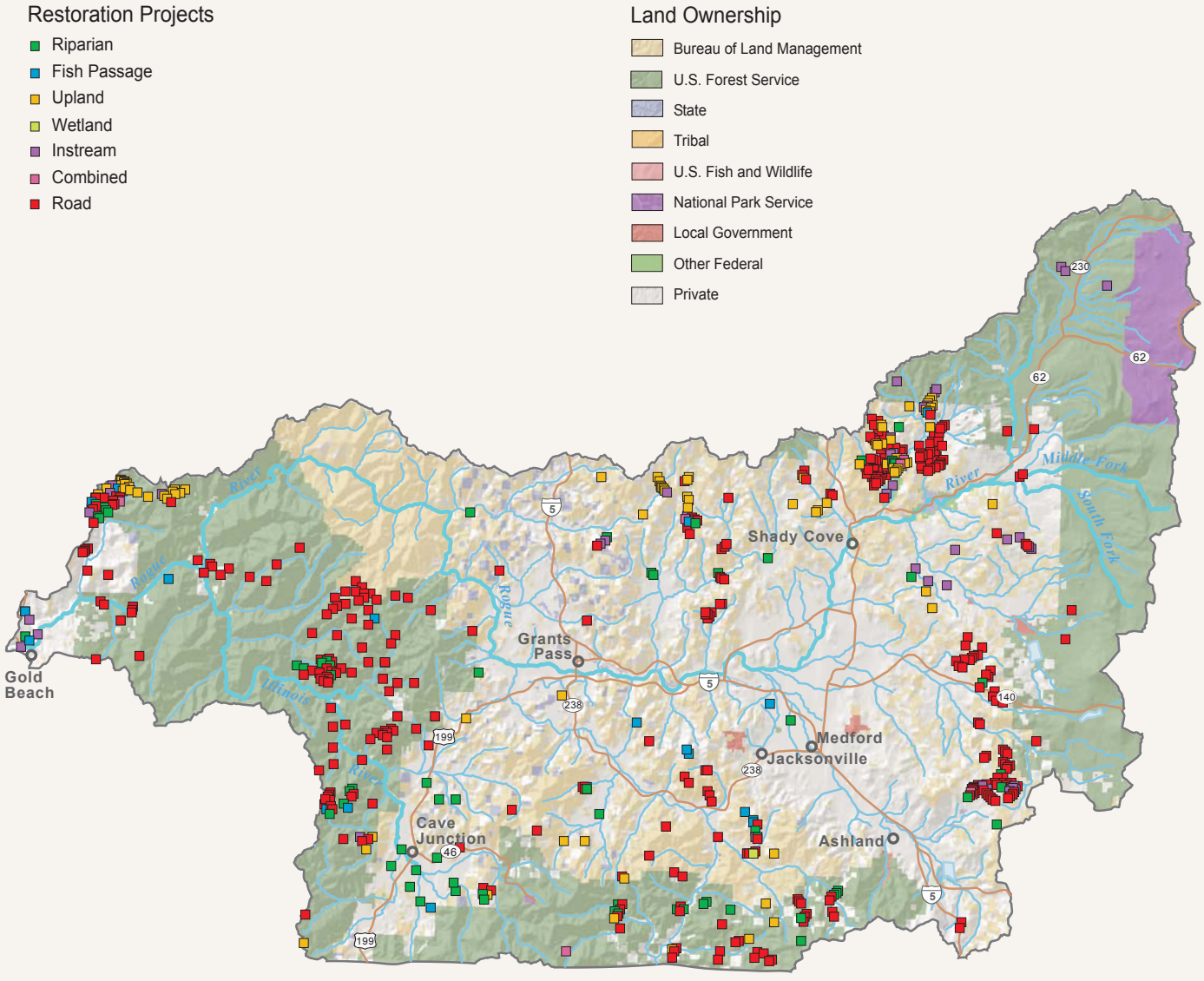
Accomplishments

- Implemented fish passage and sediment abatement projects in Tenmile Lakes.
- Placed large wood in priority drainages.
- Local conservation partners have assessed conditions, developed action plans, implemented integrated restoration efforts, evaluated the effectiveness of those efforts and have modified implementation as a result of what they have learned.
- Working from the Curry County Action Plan developed by the council and partners, nearly all the identified short-term actions have been implemented.
- The South Coast Watershed Council developed significant information on the water quality in the tidal portions of the drainages of the south coast.
- Protected the Port Orford municipal watershed.
- Addressed marina discharges in the Port of Brookings.

Rogue Basin

Headwaters of the Rogue River flow from the west slopes of Crater Lake and the southern Cascades to the Pacific Ocean. This basin has an extremely complex geologic structure and corresponding vegetation patterns. From the lava and pumice of the southern Cascade volcanoes, the middle Rogue River flows through the relatively populated Medford-Ashland area with its orchards and irrigated agriculture. Mining and forestry are also significant economic sectors in the basin. Fisheries for chinook salmon and steelhead in the Rogue are world famous. Coho salmon in the Rogue are listed as threatened under the federal Endangered Species Act. The Rogue River cuts through the Coast Range and enters the Pacific Ocean at Gold Beach, where mail boat tours take visitors upriver and salmon fishing is a yearly ritual.

Completed and Reported Restoration 2002-2003



Basin Facts

Population (2000)	257,914
Cities over 10,000	4
Area (acres)	3,210,948
Watershed Councils	9
SWCD's	4

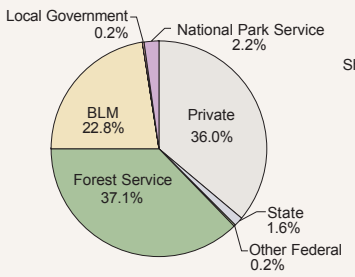
State or Federal Listed

Plant Species	10
Animal Species	13

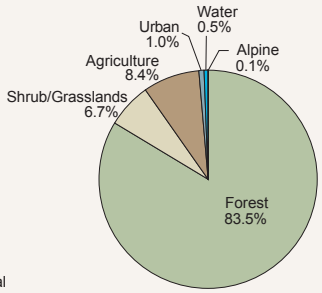
Restoration Issues

- Address fish passage problems at mainstem barriers (Savage Rapids Dam, Quality Concrete, and Gold Ray Dam) and others assigned high priority by the Rogue Basin Fish Access Team.
- Implement water quality improvements.
- Address water quantity issues in priority salmonid rearing areas.
- Encourage CREP program participation to enhance riparian areas.
- Address the potential of catastrophic fire that would severely damage watersheds.
- Protect riparian and aquatic habitats in rapidly urbanizing areas.

Land Ownership

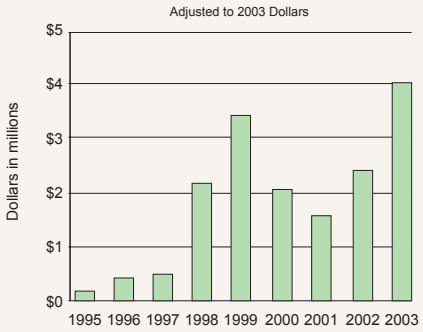


Land Cover

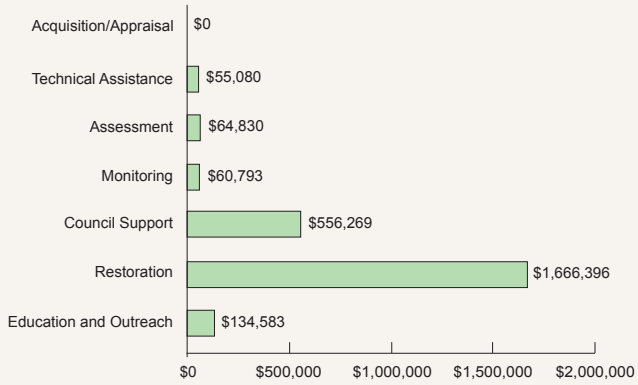


Investments

Funding for Completed and Reported Restoration by Year, 1995-2003

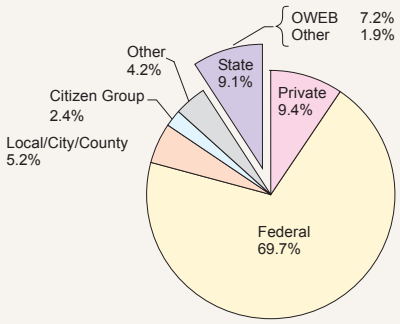


OWEB Investment in Restoration and Capacity
2003–2005 Biennium



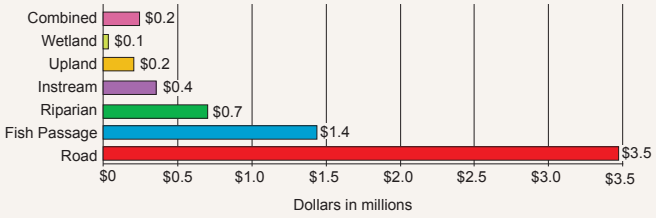
Total Investment $2,537,951

Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $6.5 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



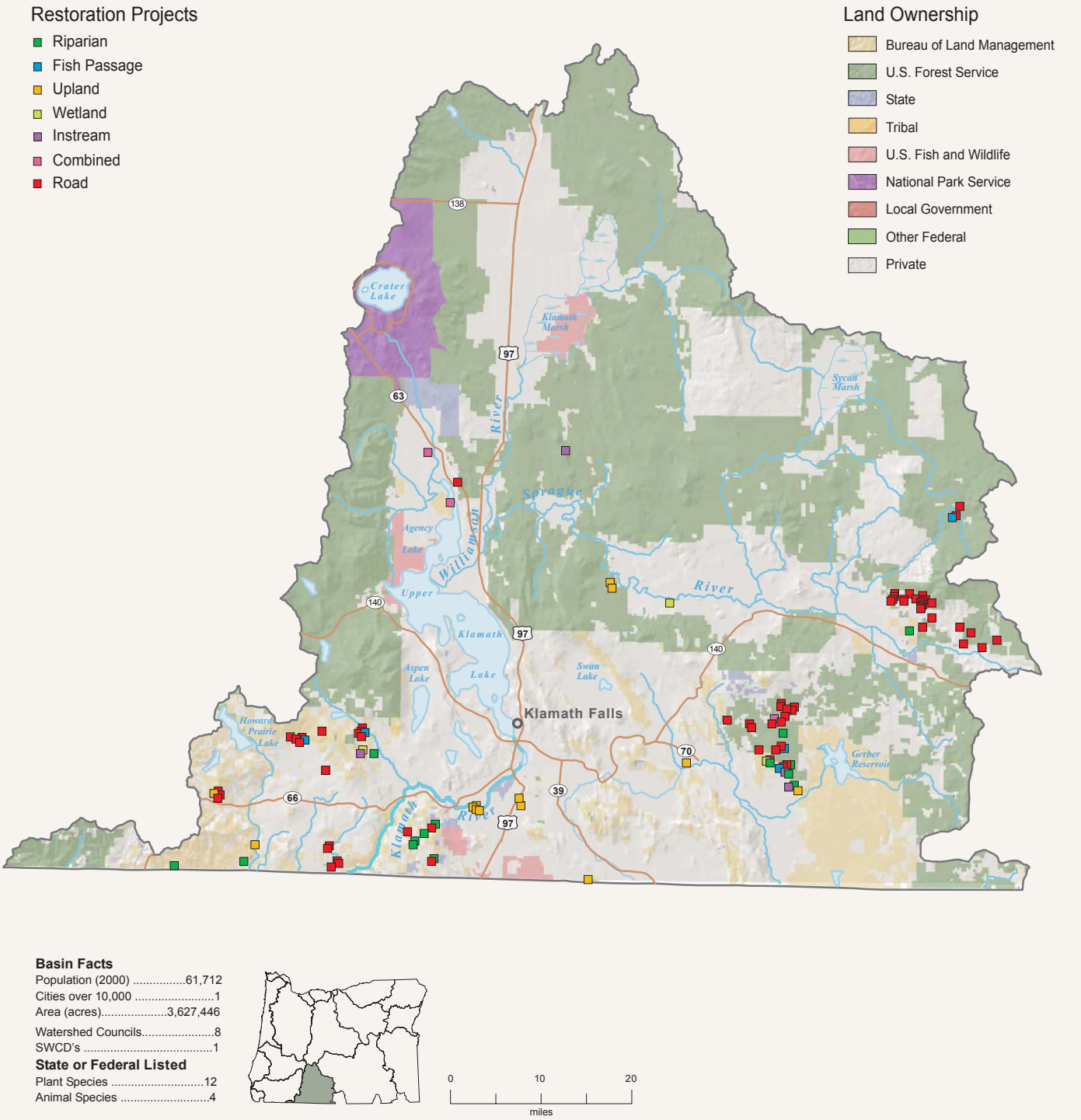
Accomplishments

- Large wood has been placed in Williams Creek and the Upper Rogue River to improve habitat complexity.
- Fish passage barriers have been systematically evaluated and removed.
- Riparian restoration has continued throughout the basin.
- Local conversions from flood irrigation to more efficient pump and high-pressure piped systems helped maintain water in stream.

Klamath Basin

The Klamath basin has been the focus of national attention following the drought of 2000. Flowing south from Crater Lake National Park, the streams and springs that form Upper and Lower Klamath Lakes exit Oregon through California as the Klamath River. Extensive lakes and wetlands along the Sycan, Sprague, Williamson, and Wood rivers dominate the basin. Numerous bald eagles and immense numbers of waterfowl overwinter in the basin. Irrigated agriculture, ranching, forestry, and, to a lesser extent, recreational tourism are key elements of the economy here.

Completed and Reported Restoration 2002-2003



Basin Facts

Population (2000) 61,712
Cities over 10,000 1
Area (acres).....3,627,446
Watershed Councils.....8
SWCD's 1

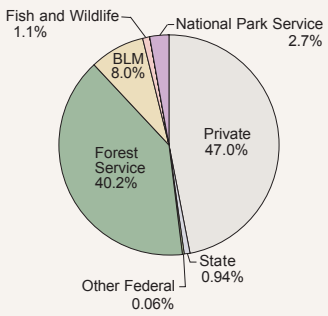
State or Federal Listed

Plant Species 12
Animal Species 4

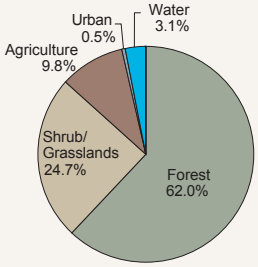
Restoration Issues

- Complete watershed assessments for the basin.
- Implement restoration actions to enhance wetlands and restore riparian functions.
- Develop a program for screening diversions (including inventory, assessment, and prioritization).
- Address catastrophic fire and juniper encroachment conditions that threaten watershed health.

Land Ownership

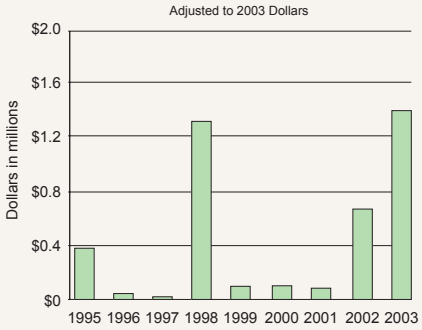


Land Cover

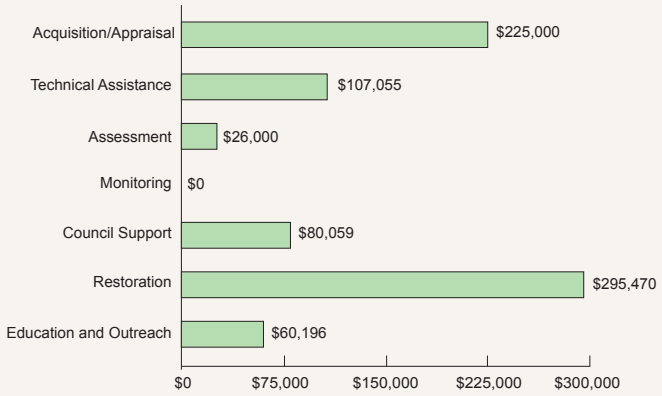


Investments

Funding for Completed and Reported Restoration by Year, 1995-2003

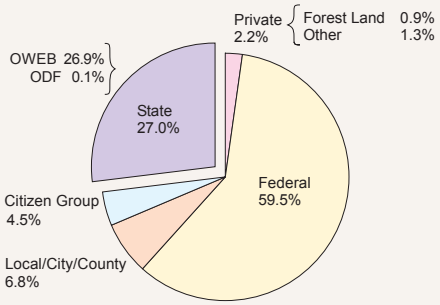


OWEB Investment in Restoration and Capacity
2003–2005 Biennium



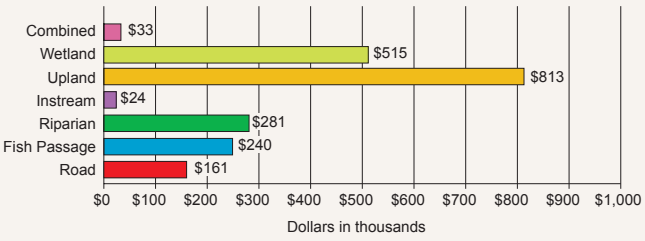
Total Investment $793,780

Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $2.1 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



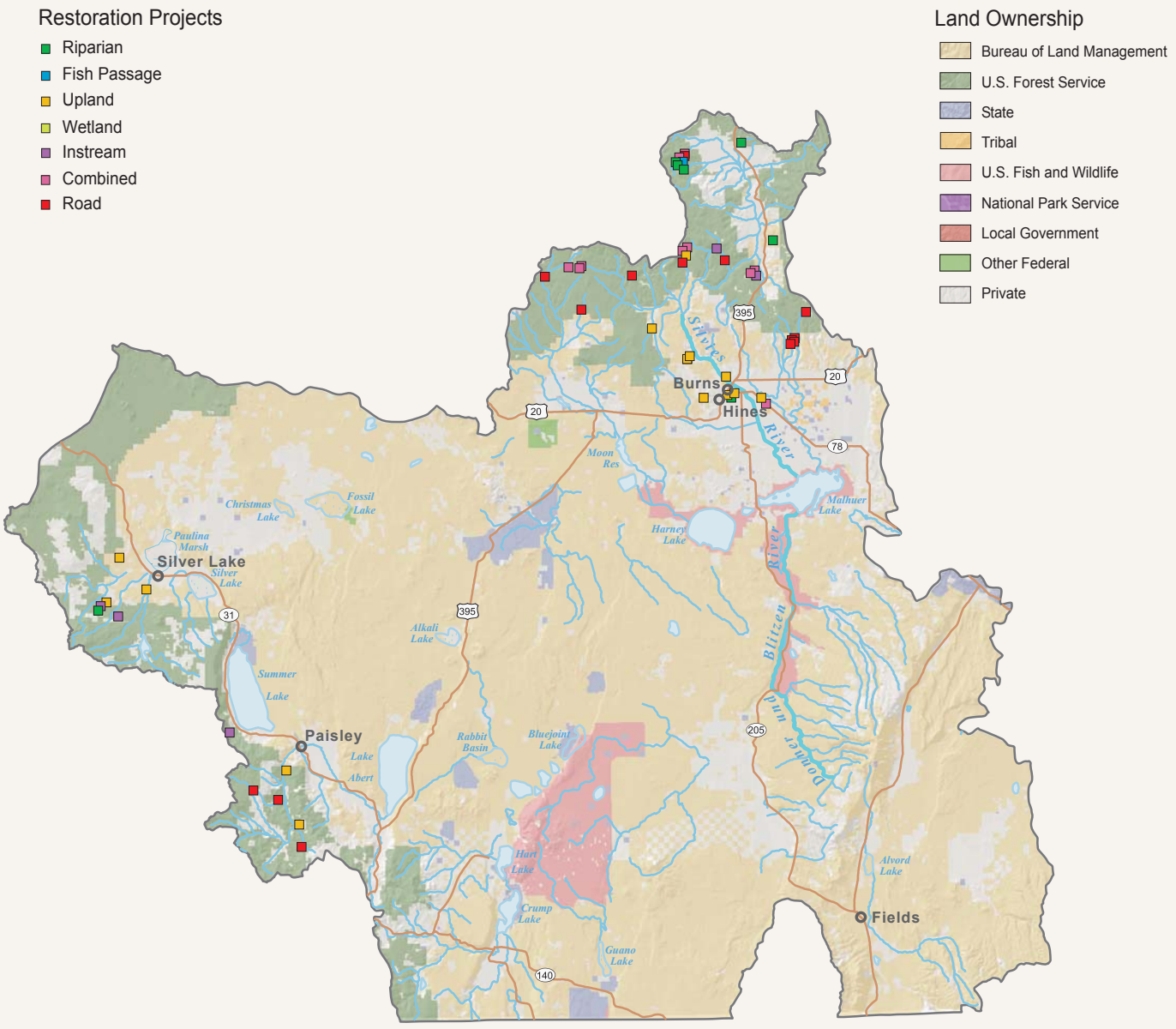
Accomplishments

- Completed Upper Williamson River watershed assessment and initiated watershed assessments on the Sycan and Upper Sprague subbasins.
- Initiated public discussion of watershed issues and opportunities in the Sprague River subbasin.
- Secured funding to design the restoration of 750 acres of wetland adjacent to Upper Klamath Lake.
- Completed willow caging projects, riparian fencing and whole stream restoration projects on private lands above Upper Klamath Lake and fencing of two springs on Table Mountain at the west edge of the Klamath Basin.
- Restored more than 170 cfs of streamflow throughout the basin through voluntary programs.
- 86% of all water right contests filed on the State's preliminary evaluation in the Klamath Basin Adjudication have been resolved.

Lakes Basin

Waters that flow in the desert country of Lake, southern Harney, and southwestern Malheur counties drain toward lakes like Malheur, Abert, Silver, and Summer. These waterbodies and associated wetlands are remnants of ancient Pleistocene lakes that filled the basin. Scenic mountains rise abruptly from the valley floors. Streams that drain the uplifted ranges support Lahontan cutthroat trout, redband trout, Tui chub, Alvord chub, and Borax Lake chub. Hart Mountain and Malheur National Wildlife Refuges and the Steens Mountain Wilderness Area provide wildlife viewing and scenic vistas. Fort Rock and the Alvord Desert are home to antelope and sage grouse. Diamond Craters, the historic Round Barn of the P Ranch and the Burns Paiute tribal lands are in this basin. Ranching and forest products principally support communities in this basin.

Completed and Reported Restoration 2002-2003

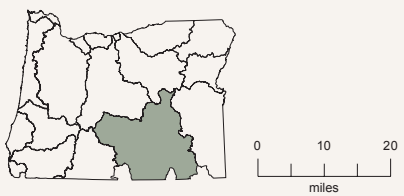


Basin Facts

Population (2000) 10,098
Cities over 10,000 0
Area (acres).....11,638,073
Watershed Councils.....6
SWCD's 3

State or Federal Listed

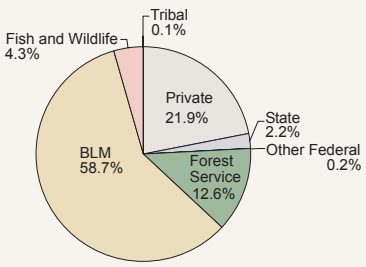
Plant Species 12
Animal Species 8



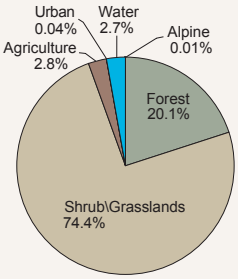
Restoration Issues

- Restore floodplain wetlands and riparian areas.
- Restore connectivity for adfluvial redband trout.
- Address noxious weeds and juniper encroachment into rangelands.
- Manage shrub steppe to enhance sage grouse habitat.
- Address catastrophic fire conditions.

Land Ownership

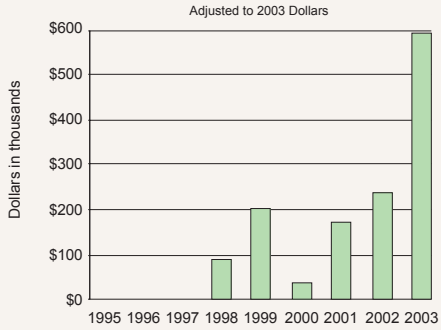


Land Cover

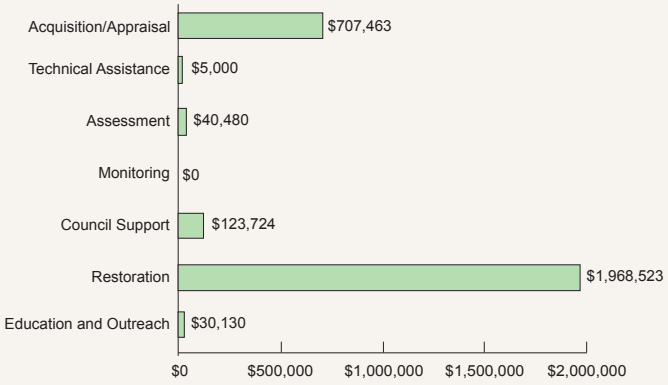


Investments

Funding for Completed and Reported Restoration by Year, 1995-2003

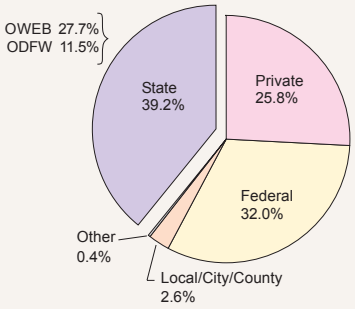


OWEB Investment in Restoration and Capacity
2003–2005 Biennium



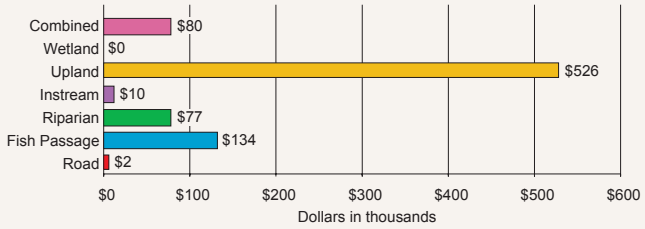
Total Investment $2,875,320

Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $0.8 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



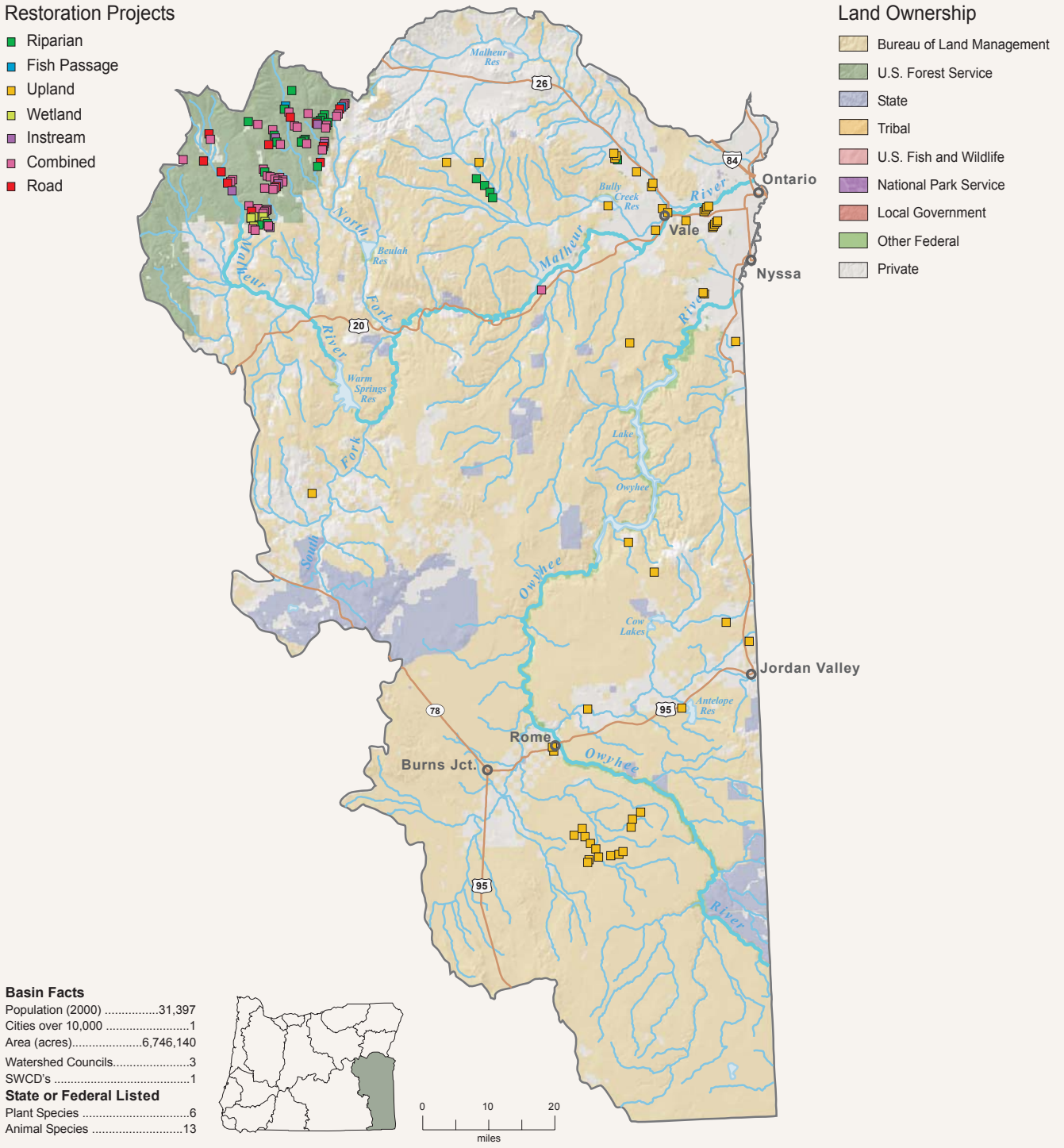
Accomplishments

- Secured commitment to remove three major fish passage barriers in the Chewaucan River system. The Paisley Town Weir project resulted from a technical assistance design developed by OWEB funding. The Narrows Weir was provided fish passage by the ODFW Restoration and Enhancement Board and the Red House Weir is proposed for removal by the ranch owner.

Owyhee-Malheur Basin

The upper Owyhee and Malheur River drainage is a very lightly populated portion of the state. The lower Malheur Basin supports rich irrigated agriculture and is particularly known for production of onions. Cattle ranching is the dominant use of the upper basin that includes the stark beauty of Leslie Gulch and the Jordan Craters. The wild upper Owyhee River is one of the few undammed areas in Oregon. Bull trout in this basin are listed as threatened under the federal Endangered Species Act.

Completed and Reported Restoration 2002-2003



Basin Facts

Population (2000)	31,397
Cities over 10,000	1
Area (acres)	6,746,140
Watershed Councils	3
SWCD's	1

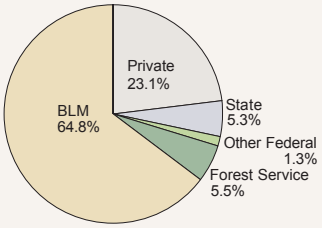
State or Federal Listed

Plant Species	6
Animal Species	13

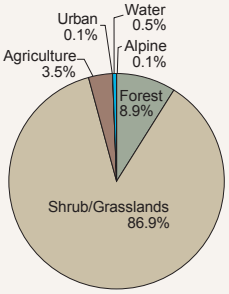
Restoration Issues

- Protect surface and groundwater quality.
- Improve sagebrush-steppe habitats through improved rangeland management.
- Reduce juniper impact on watershed hydrology and sage grouse.
- Reduce agricultural sediment delivery to streams (nutrient management, irrigation-induced erosion, and animal waste management).
- Conserve and restore riparian function.

Land Ownership

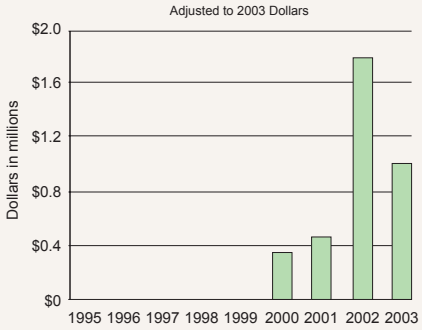


Land Cover

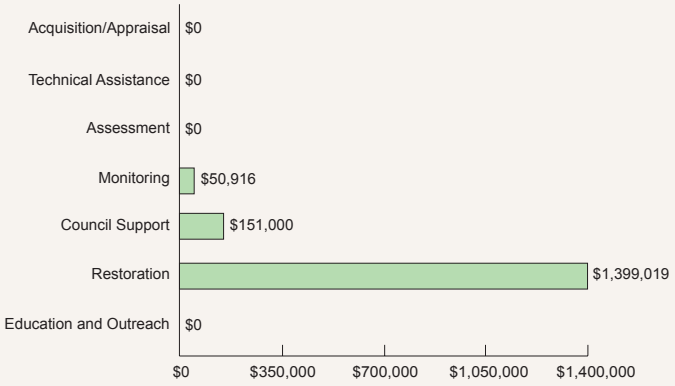


Investments

Funding for Completed and Reported Restoration by Year, 1995-2003

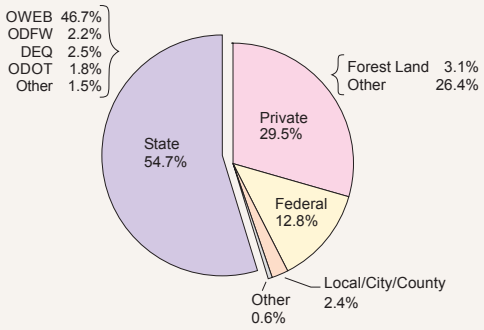


OWEB Investment in Restoration and Capacity
2003–2005 Biennium



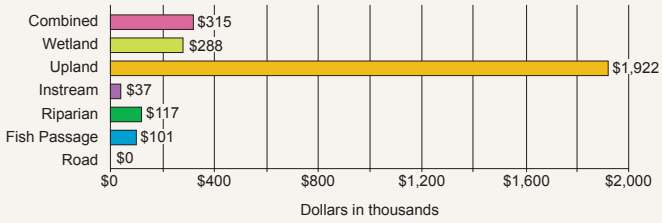
Total Investment $1,600,935

Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $2.8 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



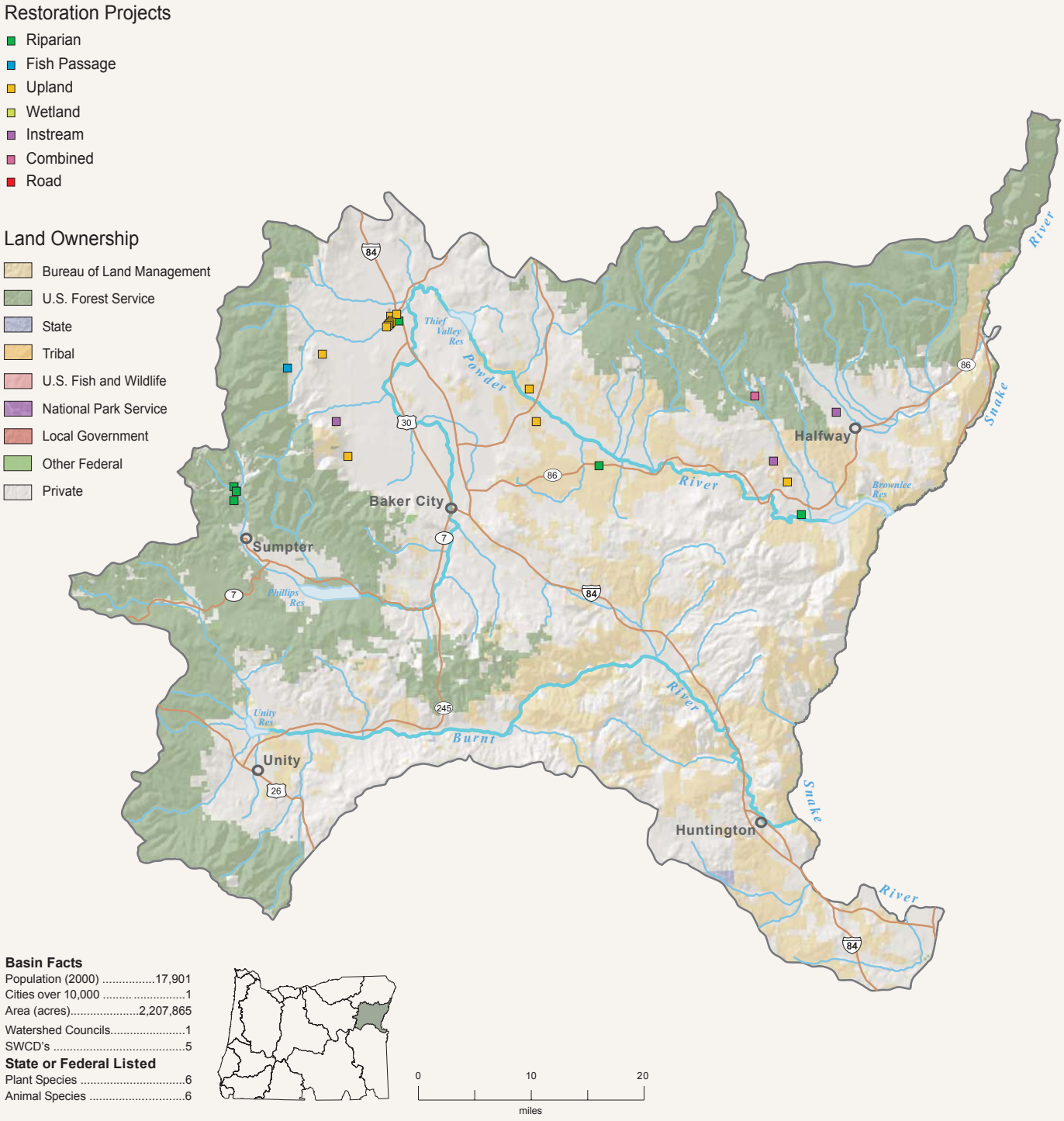
Accomplishments

- There has been significant effort to address agricultural water quality issues through irrigation efficiency, sediment control, animal waste management and other measures.
- Implemented range improvement and grazing management projects in the Malheur and Owyhee rivers.
- Conducted extensive outreach and educational activities throughout the basin, including a newsletter, video, classroom presentations, and workshops.
- Assisted with the completion of the Owyhee Subbasin Plan for the Northwest Power and Conservation Council's Fish and Wildlife Management Program.
- Assisted the Jordan Valley CWMA with noxious weed monitoring.

Powder Basin

Draining south and east from the Blue Mountains, the Powder and Burnt Rivers flow to the middle Snake River. This ranching country contains remnants of the original Oregon Trail traveled by settlers in covered wagons. Mining is still important in this basin, but agriculture and ranching are the key elements of the economy. Bull trout in this basin are listed as threatened under the federal Endangered Species Act. The Baker Valley has been identified as a conservation opportunity area where riparian thickets and wetlands could be enhanced for native species.

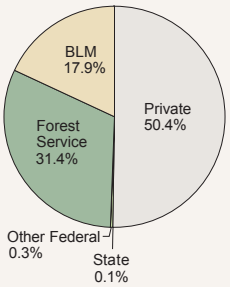
Completed and Reported Restoration 2002-2003



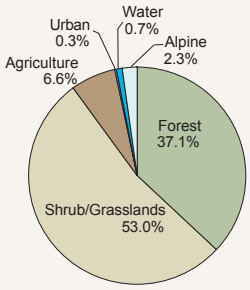
Restoration Issues

- Improve water quality (primarily temperature).
- Improve riparian and stream habitat.
- Provide fish passage and screening at irrigation diversions to protect bull trout.
- Improve sagebrush-steppe habitats through improved rangeland management.
- Reduce juniper impacts on watershed hydrology and sage grouse.

Land Ownership

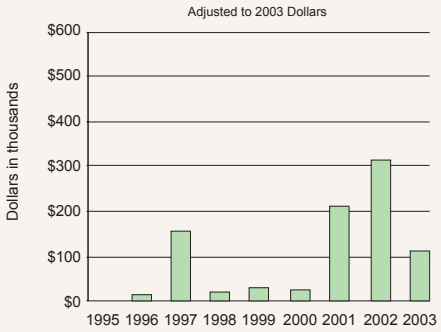


Land Cover

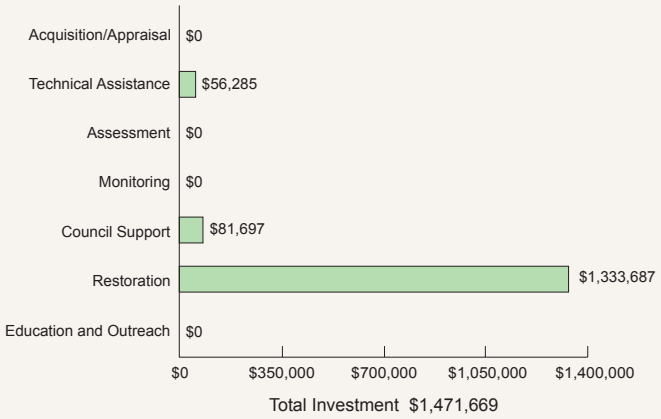


Investments

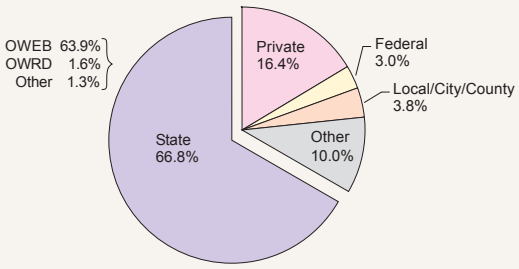
Funding for Completed and Reported Restoration by Year, 1995-2003



OWEB Investment in Restoration and Capacity
2003–2005 Biennium

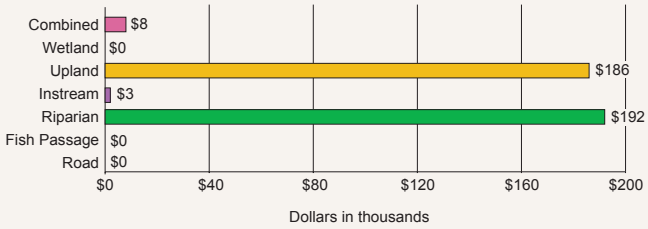


Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $0.4 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



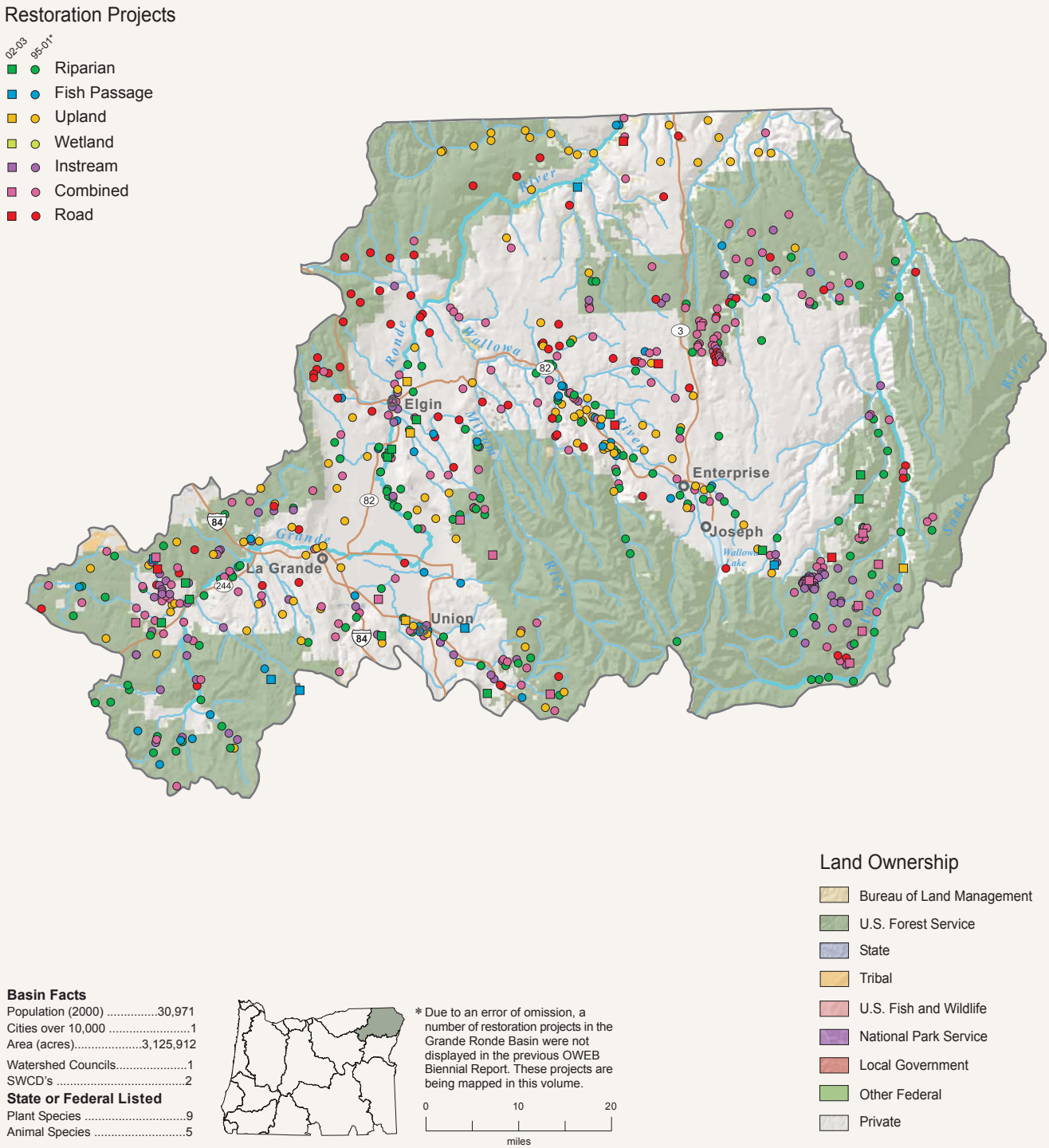
Accomplishments

- A project was initiated to improve water quality by managing livestock and restoring riparian conditions.
- Projects to improve irrigation efficiency and facilitate fish passage in the Burnt and Powder subbasins basins were completed.
- Uplands have been treated to address burn and riparian losses. Juniper control projects treated approximately 5,000 acres.
- The Powder Basin Watershed Council completed the Powder Valley Watershed Assessment, Pine Creek Action Plan, Upper Powder Action Plan, a watershed action planning outreach effort, and is working with the City of Sumpter for designs to address the design issues associated with the Municipal Diversion.

Grande Ronde Basin

This basin includes the Wallowa, Grande Ronde, and Imnaha rivers, flowing from the majestic Wallowa Mountains to the Snake River. Ranching, agriculture, and forestry are key to the economy. The Wallowa Mountains frame the Grande Ronde Valley. This basin is the historic homeland of the Nez Perce Tribe. Nestled between the Imnaha and Grande Ronde rivers, Zumwalt Prairie supports the highest density of raptors in Oregon. Bull trout, spring chinook salmon and summer steelhead in this basin are listed as threatened under the federal Endangered Species Act. Mountain headwaters in pine forests transition through deep canyons and meander through agricultural communities in the lowlands before flowing through deep canyons to join the Snake River.

Completed and Reported Restoration 1995-2003*



Basin Facts

Population (2000)	30,971
Cities over 10,000	1
Area (acres)	3,125,912
Watershed Councils	1
SWCD's	2

State or Federal Listed

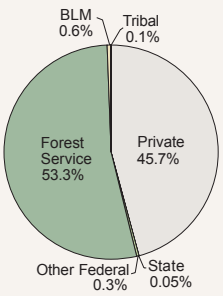
Plant Species	9
Animal Species	5

* Due to an error of omission, a number of restoration projects in the Grande Ronde Basin were not displayed in the previous OWEB Biennial Report. These projects are being mapped in this volume.

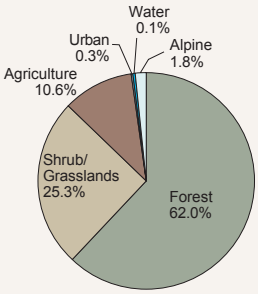
Restoration Issues

- Restore late summer low flows that are the most significant limitation to aquatic life.
- Restore high elevation wet meadows to improve late season stream flow.
- Address threat of catastrophic wildfire.
- Implement irrigation improvements that provide more efficient use of water.
- Improve riparian areas and stream connectivity and complexity.

Land Ownership

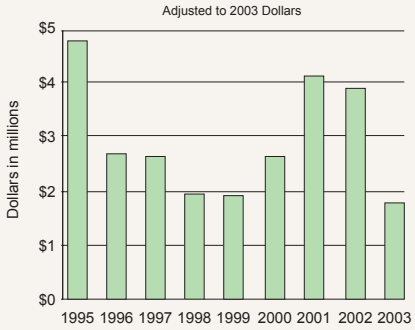


Land Cover

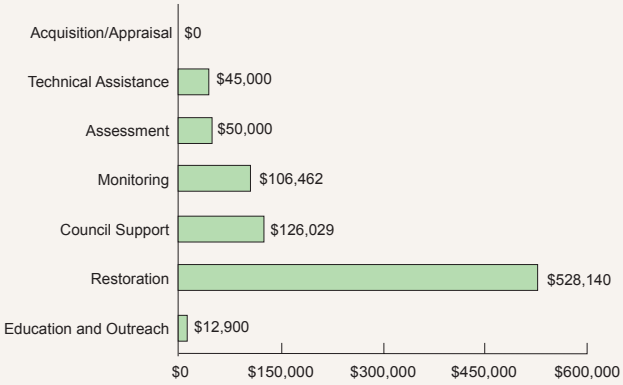


Investments

Funding for Completed and Reported Restoration by Year, 1995-2003

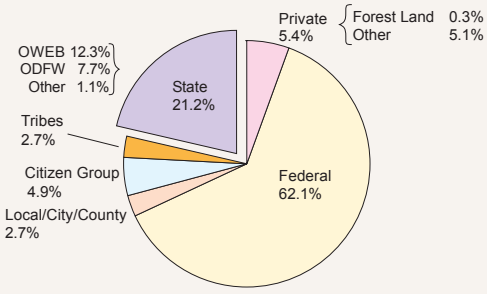


OWEB Investment in Restoration and Capacity
2003–2005 Biennium



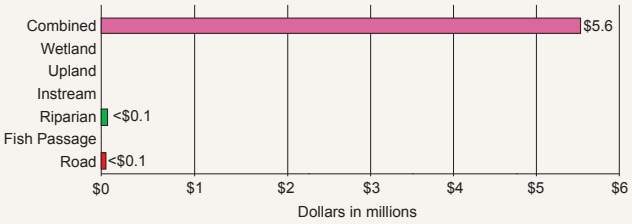
Total Investment $868,531

Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $4.1 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



Accomplishments

- Significant emphasis has been placed on channel relocation projects restoring floodplain function, restoring riparian health and instream habitat while enhancing the ability of wet meadows to retain moisture from snow and rain for delayed release to basin streams.
- Sediment retention projects and forest health projects have been implemented throughout the basin.
- Planning for evaluating more efficient and fish-friendly irrigation distribution system for the Lostine drainage was accomplished.

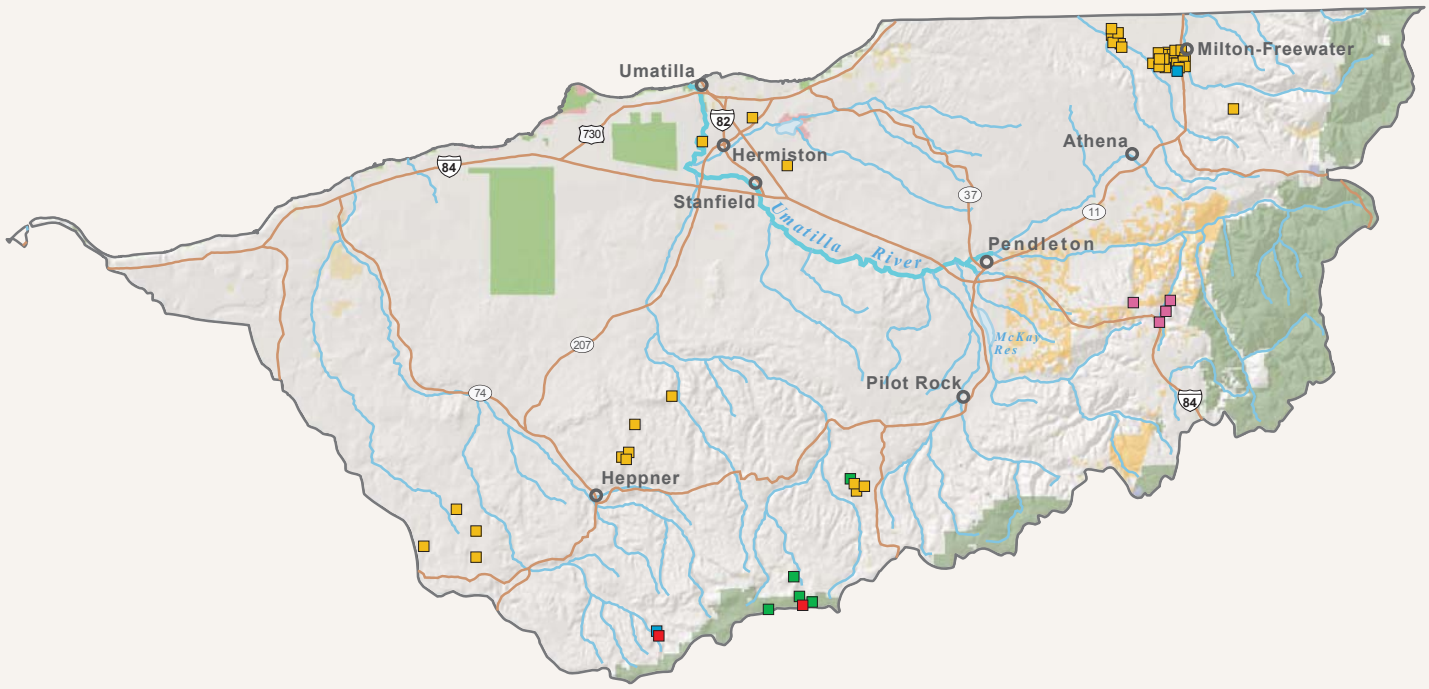
Umatilla Basin

This basin includes the Umatilla, Walla Walla and Willow Creek drainages. Ranching, forestry, wheat, other forms of agriculture, and Umatilla tribal lands dominate the economy. The Umatilla Basin is the site of successful reintroduction of spring chinook that were extirpated for more than 75 years. The Umatilla and Walla Walla Rivers spring from forested hillsides of the Blue Mountains. Headwater areas of these rivers support remarkably high numbers and diversity of native species. Downstream reaches of these rivers flow through highly productive wheat farms, fruit orchards, and other irrigated agriculture.

Completed and Reported Restoration 2002-2003

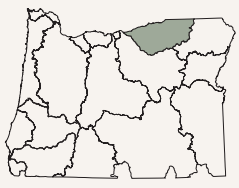
Restoration Projects
- Riparian
- Fish Passage
- Upland
- Wetland
- Instream
- Combined
- Road

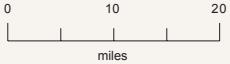
Land Ownership
- Bureau of Land Management
- U.S. Forest Service
- State
- Tribal
- U.S. Fish and Wildlife
- National Park Service
- Local Government
- Other Federal
- Private



Basin Facts

Population (2000)	81,843
Cities over 10,000	2
Area (acres)	3,004,958
Watershed Councils	4
SWCD's	3
State or Federal Listed	
Plant Species	5
Animal Species	1

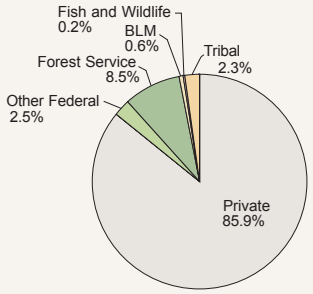




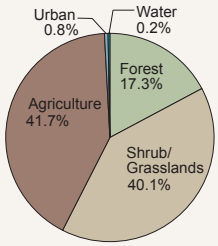
Restoration Issues

- Restore high elevation wet meadows to improve late season stream flow.
- Address historic down-cutting of stream channels and reduction of stream complexity.
- Restore riparian and floodplain conditions.
- Address noxious weeds and juniper encroachment into rangelands.
- Manage shrub steppe to enhance sage grouse habitat.
- Enhance flow in the Walla Walla Basin.

Land Ownership

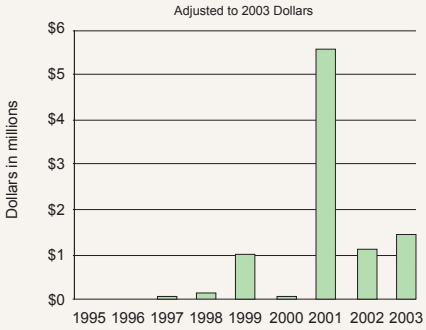


Land Cover

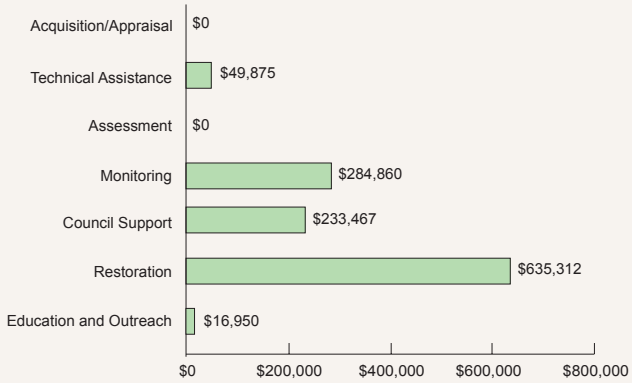


Investments

Funding for Completed and Reported Restoration by Year, 1995-2003

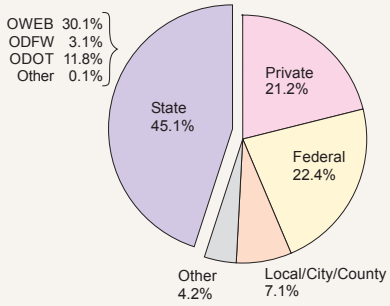


OWEB Investment in Restoration and Capacity
2003–2005 Biennium



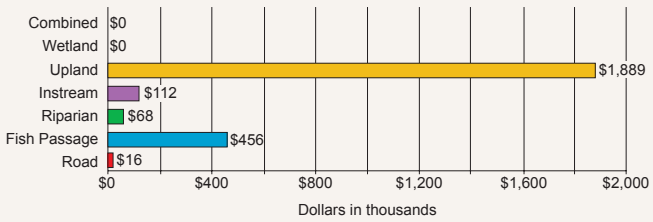
Total Investment $1,220,464

Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $2.5 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



Accomplishments

- Completed Upper Butter Creek Assessment and Recommendations to assist the landowners prioritizing restoration efforts for Butter Creek.
- Implemented direct seeding in the Umatilla and Walla Walla basins to reduce overland flow and sediment transport and improve upland wildlife habitat on more than 7,000 acres.
- Pipeline and ditch consolidation projects eliminated significant passage barriers for steelhead and conserved flows for steelhead and bull trout.
- The STELLAR Science Education program provided hands-on experience, field trips, curriculum, and natural resource, technology, and forestry education to K through 12 in the Milton-Freewater School District.
- Bull Trout Telemetry project helped identify solutions to fish passage problems.
- Surface-groundwater interaction studies helped the community of the Walla Walla Basin begin to better manage water throughout the year. This information led implementation of an aquifer restoration project that added more than 700 acre-feet of water to the alluvial system.

John Day Basin

This basin includes the Painted Hills, John Day Fossil Beds National Monument, and Strawberry Mountain Wilderness, and contains one of the most significant undammed stream systems in the West. The economy is dependent on natural resource industries: forestry, ranching, and mining. Summer steelhead and bull trout are listed under the federal Endangered Species Act. Nearly 40% of the basin is public land. Ponderosa pine forests in the Ochoco and Blue Mountains dominate the headwaters. The north and middle forks of the John Day meander through open meadow and prairie ranch land. The mainstem of the river below Spray flows through an incised canyon that bisects shrub-steppe and wheat ranches in the uplands before flowing into the Columbia River at the eastern end of its dramatic gorge.

Completed and Reported Restoration 2002-2003

Basin Facts

Population (2000)	11,690
Cities over 10,000	0
Area (acres)	5,076,758
Watershed Councils	8
SWCD's	5

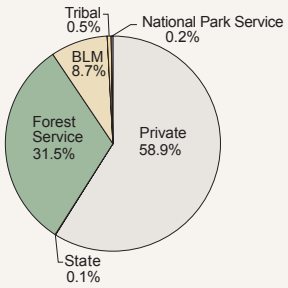
State or Federal Listed

Plant Species	6
Animal Species	5

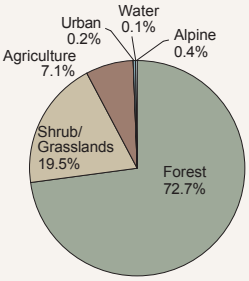
Restoration Issues

- Restore high elevation wet meadows to improve late season stream flow.
- Restore riparian and stream habitat function.
- Prioritize and eliminate barriers to fish passage.
- Prioritize fish screens for diversions.
- Protect cold water habitats.
- Address catastrophic fire conditions.
- Address noxious weeds that threaten range conditions.
- Manage juniper expansion that affects basin hydrology.
- Restore streamflows in priority salmonid rearing areas.

Land Ownership

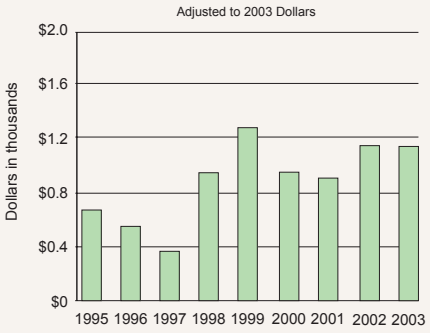


Land Cover

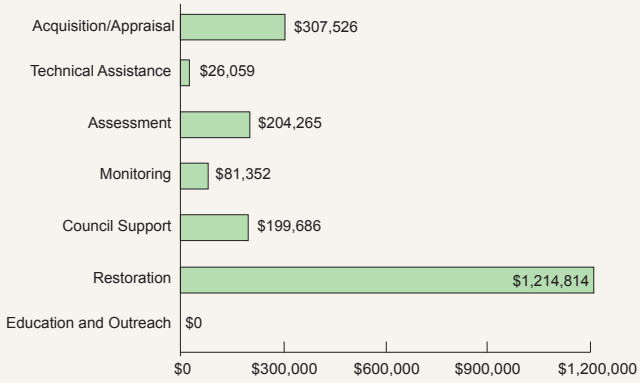


Investments

Funding for Completed and Reported Restoration by Year, 1995-2003

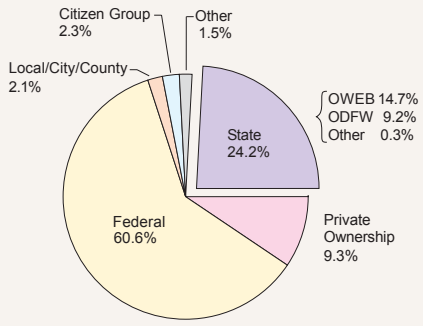


OWEB Investment in Restoration and Capacity
2003–2005 Biennium



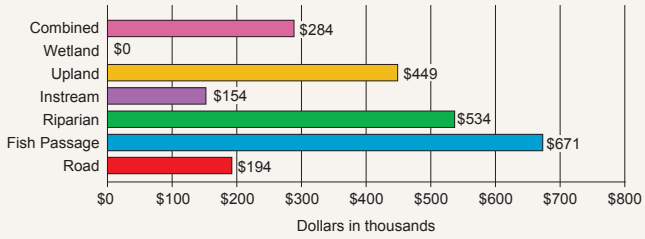
Total Investment $2,033,702

Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $2.3 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



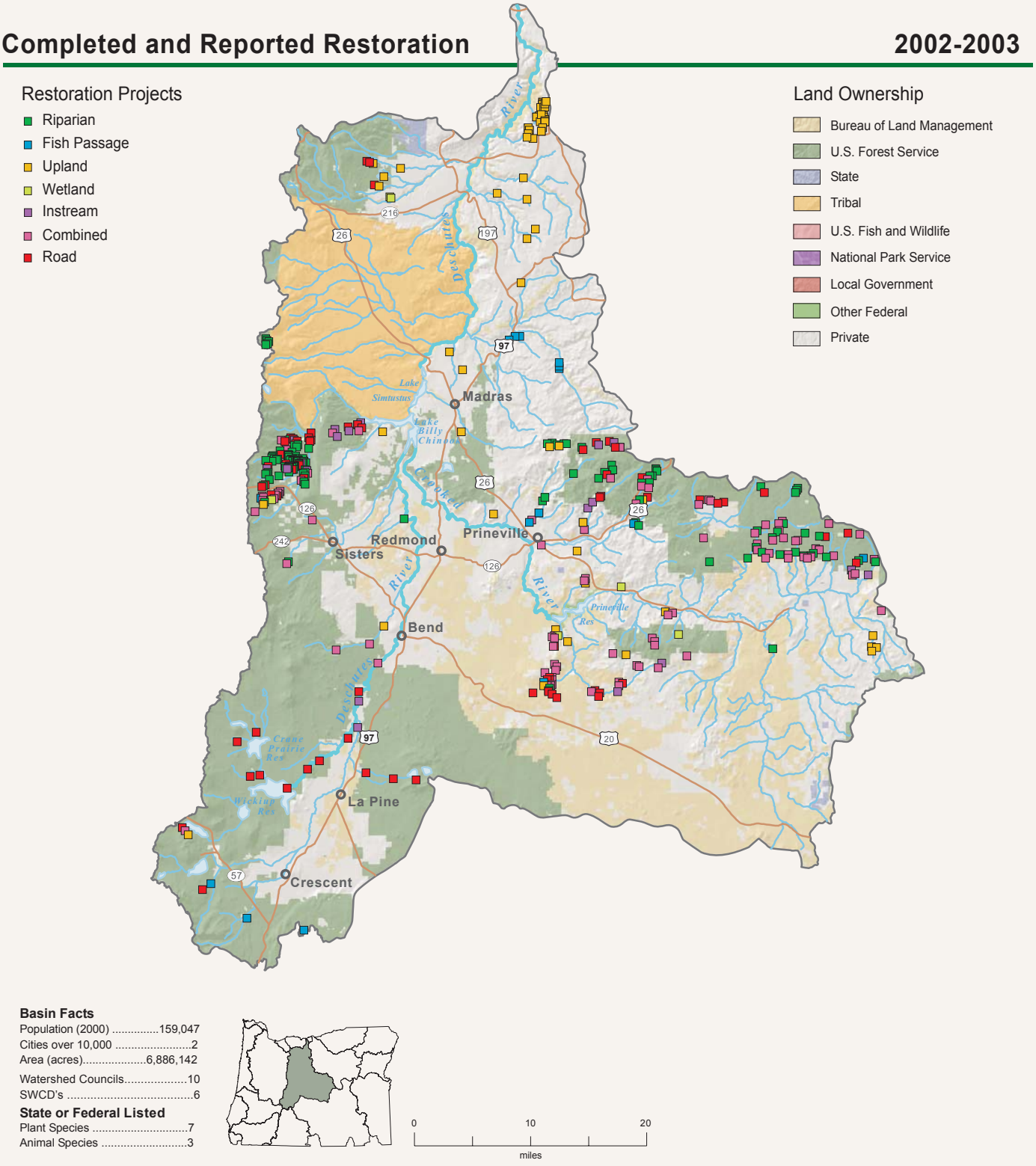
Accomplishments

- Significant effort to eliminate fish passage barriers associated with irrigation diversions.
- Major emphasis on fencing/livestock water development projects to address riparian conditions.
- Initiated watershed assessments throughout the lower basin.
- Implemented weed treatment on a significant area of rangeland.
- Partnered with Oregon State University to conduct a Technology Workshop for agricultural producers.
- Implemented projects to decrease sediment runoff and increase infiltration of precipitation in croplands.

Deschutes Basin

Bordered by the Cascade Range to the west, this basin includes the Lava Lands, high Cascade lakes, wild and scenic waterways, and a rapidly growing human population. Tourism, agriculture, forestry, ranching, and the high technology industry dominate the economy of the basin. The Deschutes River hosts world famous trout and steelhead fisheries. The Confederated Tribes of the Warm Springs Reservation operate Kah-Nee-Ta Lodge, a lumber mill and other tribal enterprises. Pelton, Round Butte, Ochoco, and Prineville dams generate electricity and block fish runs to the upper basin. Bull trout and steelhead are listed under the federal Endangered Species Act. Fed by snowfields of the Cascade and Ochoco Ranges, the basin's headwaters flow through high elevation wet meadows and lava plains before dropping through scenic canyons and shrub steppe. Irrigated agriculture, rangeland, and wheat lands lie along the Lower Deschutes.

Completed and Reported Restoration 2002-2003



Basin Facts

Population (2000)	159,047
Cities over 10,000	2
Area (acres)	6,886,142
Watershed Councils	10
SWCD's	6

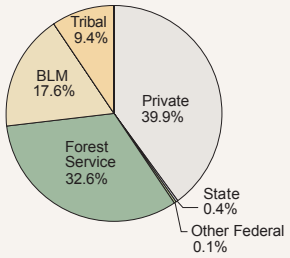
State or Federal Listed

Plant Species	7
Animal Species	3

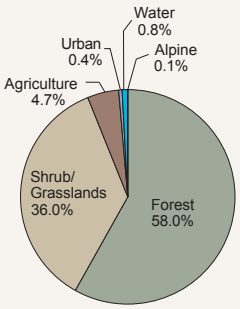
Restoration Issues

- Restore high elevation wet meadows to improve late season stream flow.
- Restore riparian and stream habitat functions.
- Reduce sediment inputs to streams from agriculture in the lower basin.
- Improve stream flows in the mid basin.
- Improve riparian conditions in the upper basin to assist in the preparation of habitat for anadromous fish - pending the resolution of the Pelton Dam agreement.
- Address catastrophic fire conditions.

Land Ownership

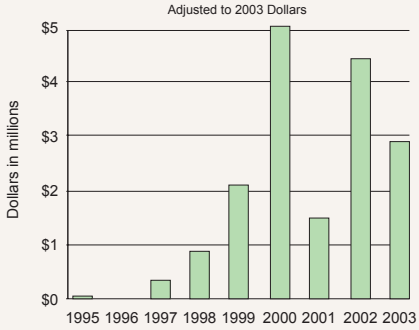


Land Cover

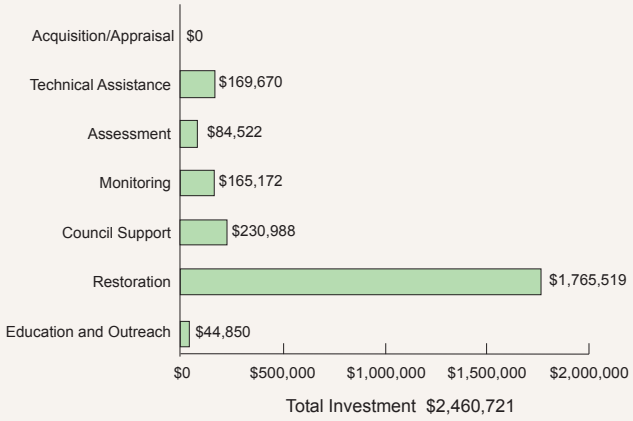


Investments

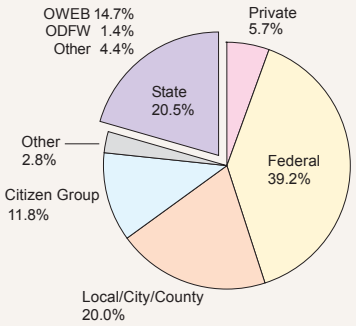
Funding for Completed and Reported Restoration by Year, 1995-2003



OWEB Investment in Restoration and Capacity
2003–2005 Biennium

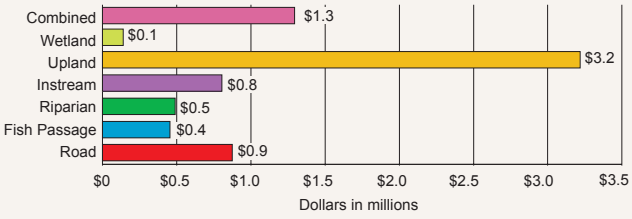


Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $7.4 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



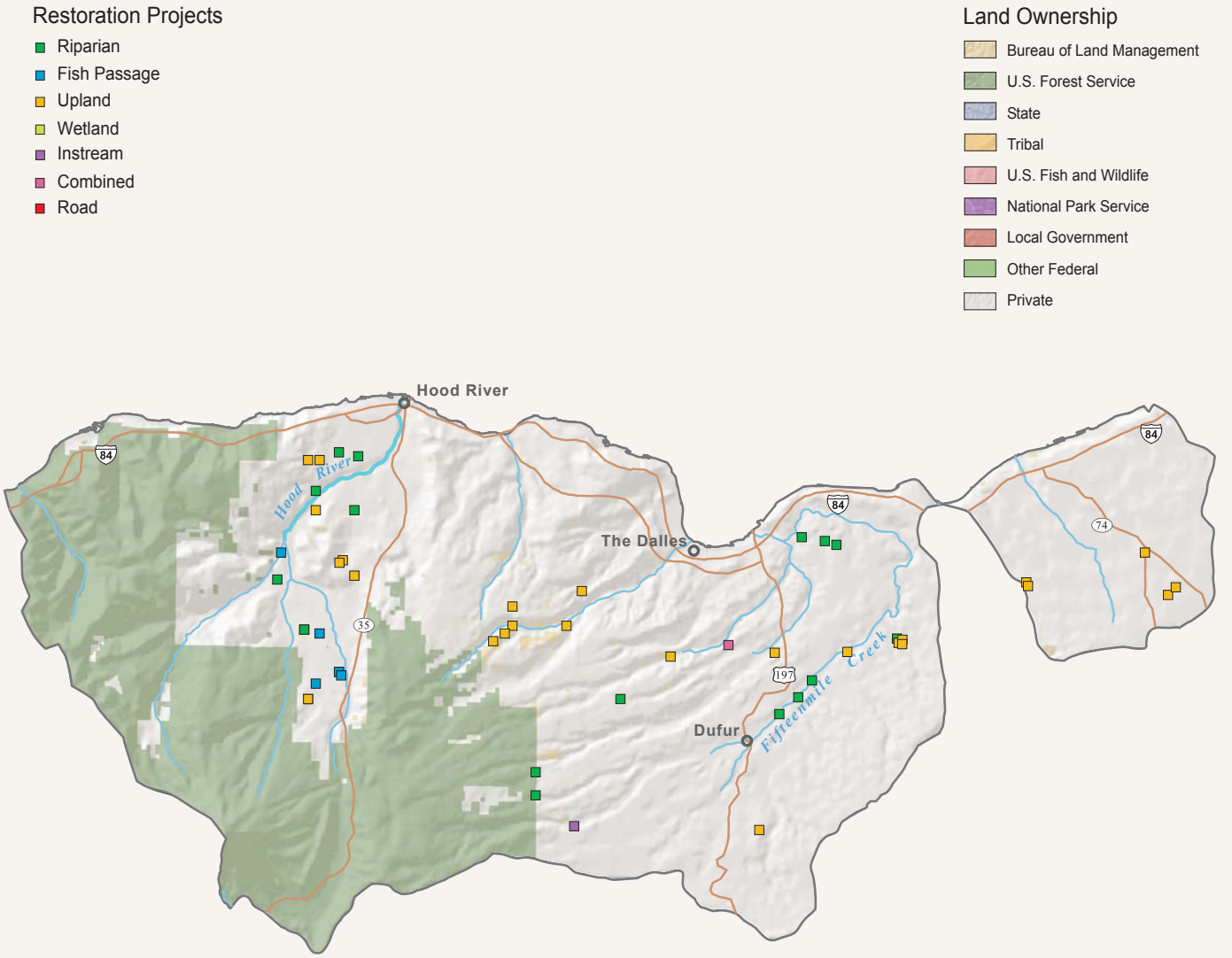
Accomplishments

- Completed design and construction of a wetland and riparian restoration project on the Deschutes River near Bend.
- Completed riparian protection and channel reconstruction projects on the Crooked River and Trout Creek.
- Partnered with the US Forest Service to raise funds and implement a three-phase project for the channel stabilization and restoration of 2.8 miles of Tumalo Creek.
- Initiated planning for silt management in downtown Bend's Mirror Pond on the Deschutes River.
- Continue to work with irrigation districts in the upper basin for opportunities to restore flow in the Middle Deschutes River between Bend and Lake Billy Chinook and in the Lower Crooked River and Squaw Creek.
- Enrolled several thousand acres of wheat land into no-till conservation tillage to eliminate overland flow and sedimentation into fish bearing streams.
- Restored more than 132 cfs of streamflow in basin through voluntary program with water right holders.

Hood Basin

Draining directly from Mt. Hood's glaciers, Hood River and Fifteenmile Creek are the primary Oregon waterways entering the spectacular Columbia River Gorge. The Gorge attracts thousands of visitors annually and is world famous for its windsurfing. Hood River valley is known for its pears and other orchard crops, while the Fifteenmile basin is the edge of wheat country and is a major cherry producing area. Agriculture, forestry, and tourism support the economy of this basin. Hood River and The Dalles are the major communities along this present day and historic travel and trade route between inland regions and the coast.

Completed and Reported Restoration 2002-2003



Basin Facts

Population (2000) 42,240
Cities over 10,000 1
Area (acres).....745,844
Watershed Councils.....7
SWCD's 3

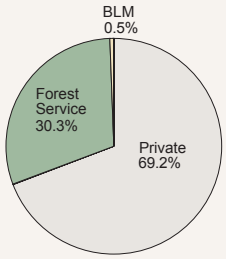
State or Federal Listed

Plant Species 12
Animal Species 2

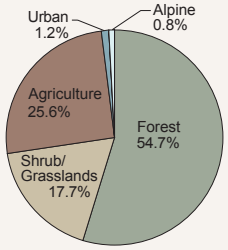
Restoration Issues

- Implement high priority activities identified in the Hood River Action Plan and Fifteenmile subbasin plan.
- Reduce sediment inputs from agriculture and enhance riparian and stream complexity conditions.
- Reduce orchard pesticide inputs to the aquatic environment.
- Continue water conservation efforts.

Land Ownership

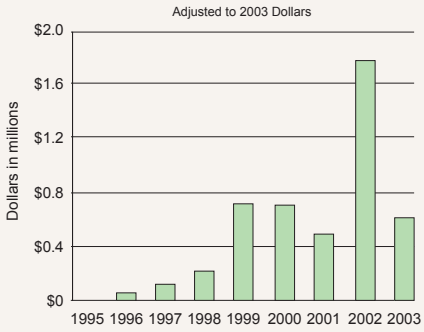


Land Cover

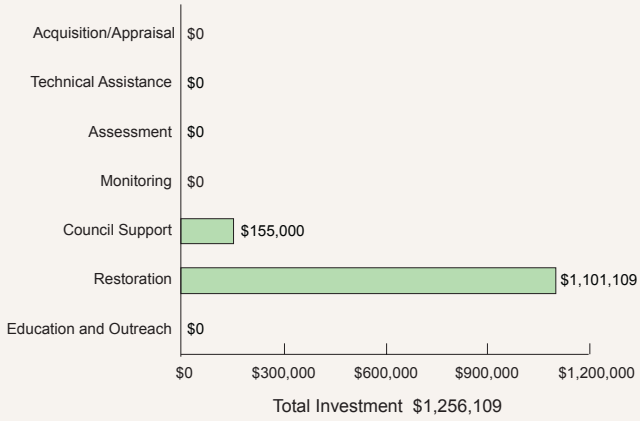


Investments

Funding for Completed and Reported Restoration by Year, 1995-2003

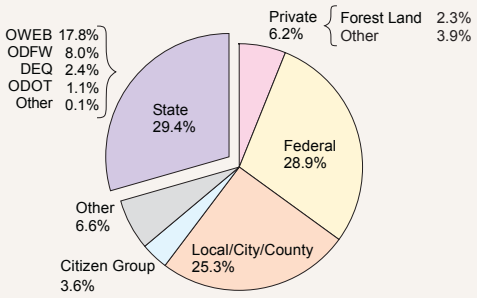


OWEB Investment in Restoration and Capacity
2003–2005 Biennium



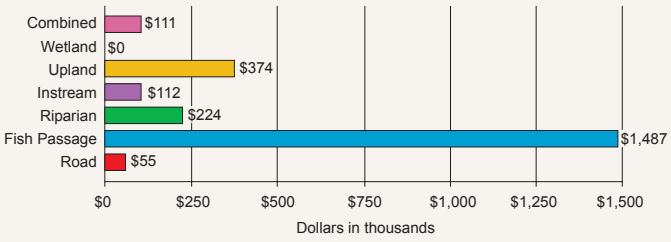
Total Investment $1,256,109

Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $2.4 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



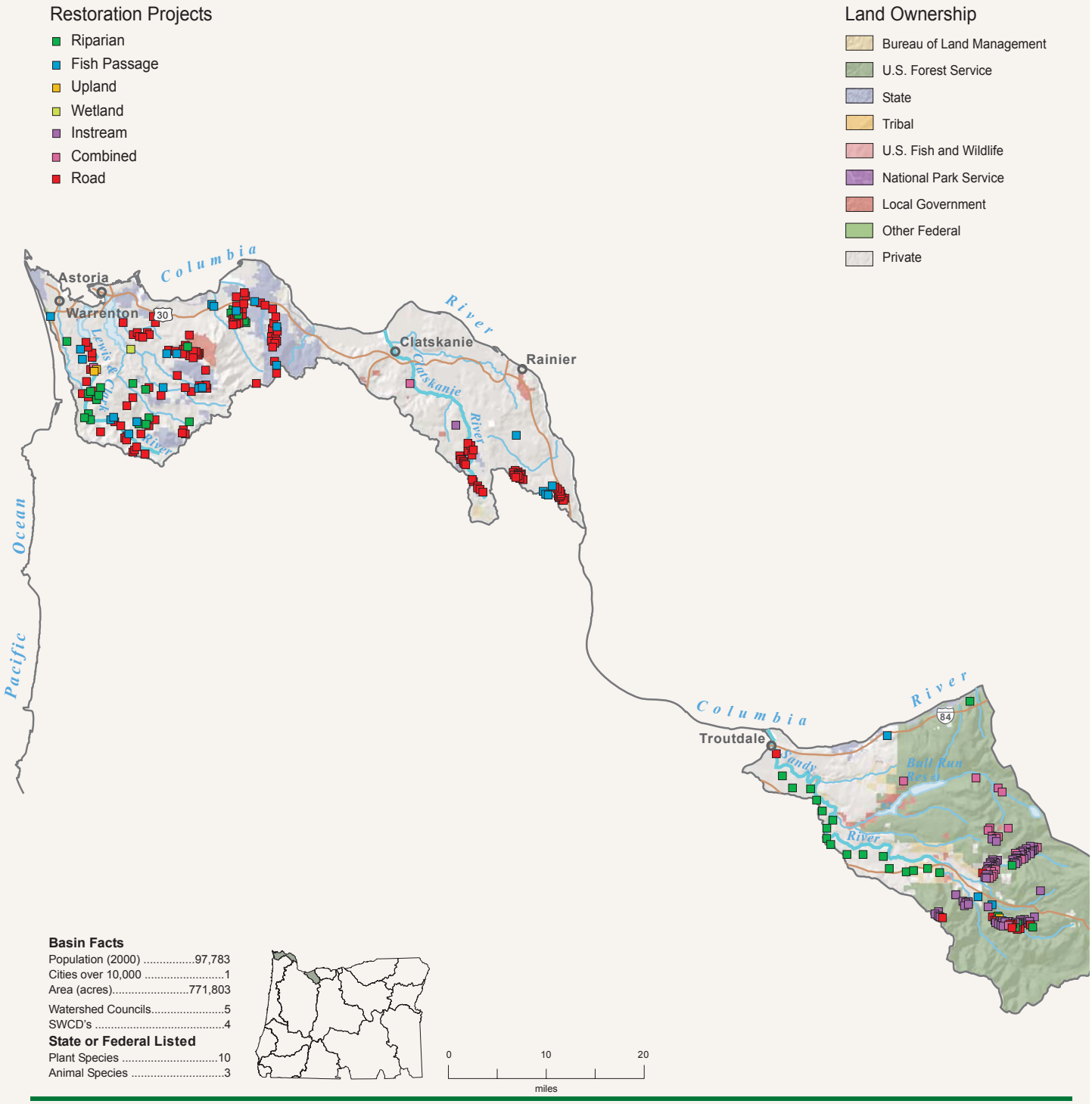
Accomplishments

- Raised $4.6 million dollars to assist the East Fork Irrigation District initiate a five-mile piping project to improve water quality and steelhead access to Neal Creek.
- Helped negotiate a 500-acre transfer of riparian land to a new owner with a conservation easement as PacifiCorp prepares to decommission Powerdale Dam.
- Raised funds and coordinated four fish passage projects by replacing culvert barriers.
- Helped the Middle Fork Irrigation District secure funds to build a pipeline and take glacial silt drainage out of open ditches and two streams that were used to transport irrigation water.
- Aided Hood River County in adoption of new land use ordinance with riparian setbacks along fish bearing streams.
- Worked with the Hood River SWCD to install riparian protection fencing, blackberry removal and planting on Odell and Indian Creeks.
- Secured funding to study alternative effectiveness methods to apply pesticides on orchards to reduce drift and stream contamination.

Lower Columbia Basin

Lewis and Clark spent the winter of 1904-1905 in this basin. This region's relatively small streams drain onto floodplains and into the tidal reaches of the Columbia River. Waters flow either from the Coast Range (Skipanon, Young's, and Clatskanie rivers, Big and Gnat creeks), or from the west slope of the Cascades (the Sandy River). These streams generally have heavily forested hillsides in headwater areas and steep valleys. Nearly the entire Columbia River floodplain has been diked. Undiked areas of the floodplain support very high species diversity. Anadromous fish species listings under the federal Endangered Species Act include chum and chinook salmon, and steelhead. Maritime shipping, forestry, and wood processing are key elements of the economy in this basin. Extensive hybrid cottonwood plantations occupy much of the diked floodplain.

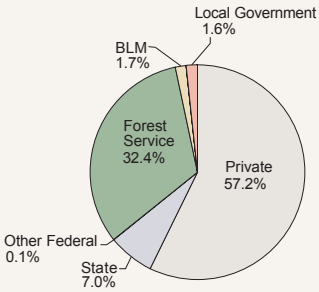
Completed and Reported Restoration 2002-2003



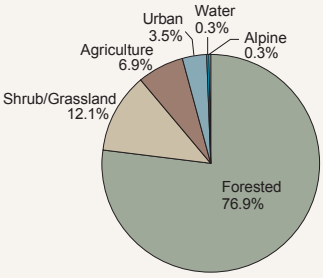
Restoration Issues

- Restore floodplain habitat for aquatic species.
- Inventory, prioritize, and remove barriers (beyond the Scappoose Bay watershed).
- Restore low gradient stream complexity.
- Resolve the Sandy Basin negotiations and implement the removal of Marmot Dam.

Land Ownership

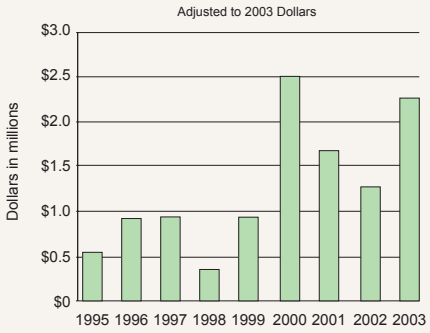


Land Cover

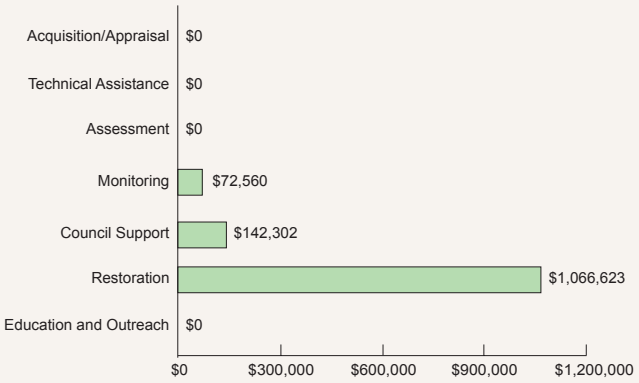


Investments

Funding for Completed and Reported Restoration by Year, 1995-2003

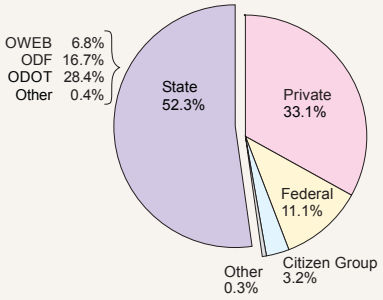


OWEB Investment in Restoration and Capacity
2003–2005 Biennium



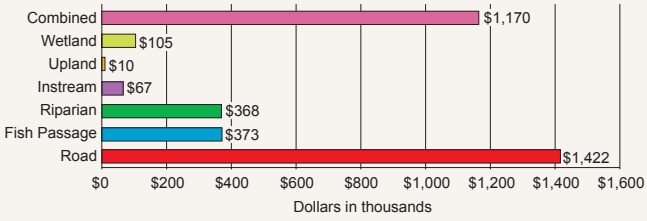
Total Investment $1,281,485

Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $3.5 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



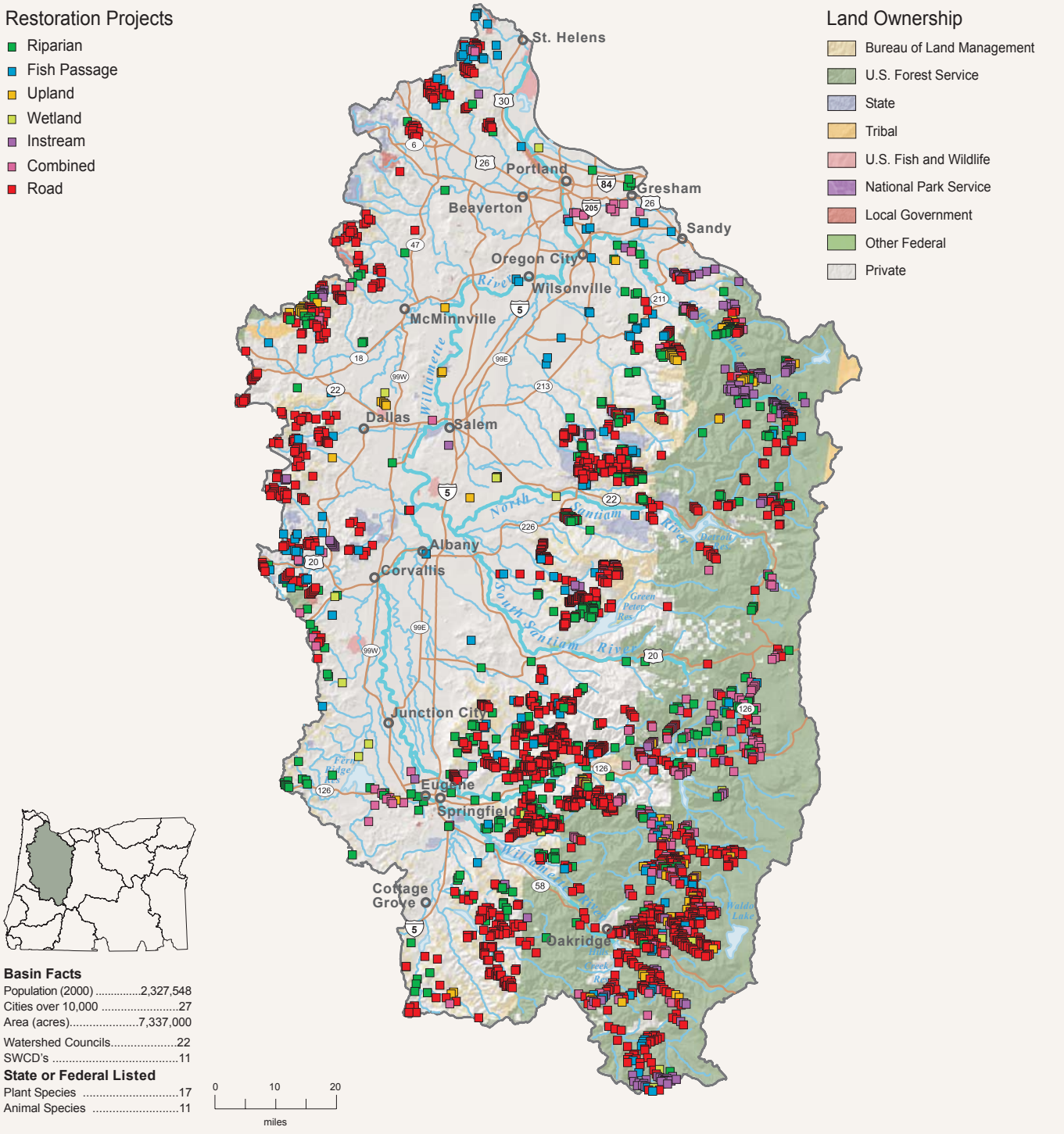
Accomplishments

- An interagency plan was developed to identify and prioritize potential estuary restoration project sites and types.
- Initiated a tidegate effectiveness monitoring study.
- Three fish passage barriers (culverts) were replaced in the Clatskanie River drainage allowing access to over six miles of coho habitat.
- Initiated two dike-breach/salt marsh restoration projects in Youngs Bay to address the historic loss of estuarine habitats.
- Improved cooperation between SWCDs and watershed councils to implement projects in an efficient manner.
- Negotiation of the removal of Marmot Dam in the Sandy Basin is being finalized.

Willamette Basin

The Willamette basin supports extensive high technology, agriculture, forestry, and wood products industries, along with roughly three quarters of Oregon's human population. Streams that flow from the Coast Range to the Willamette tend to be relatively small. Streams that drain from the Cascades are relatively large and support native cutthroat, rainbow, and bull trout, plus spring chinook salmon and winter steelhead. Large dams on most Cascade tributaries significantly alter stream flow regimes. The Willamette Valley was originally characterized by wet prairies and oak savannahs, but these have largely been replaced by urbanization and intensive agriculture.

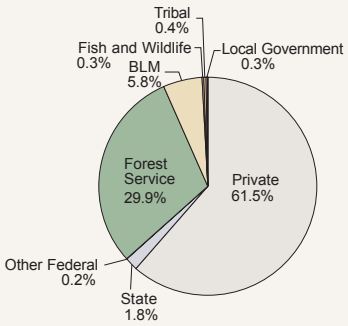
Completed and Reported Restoration 2002-2003



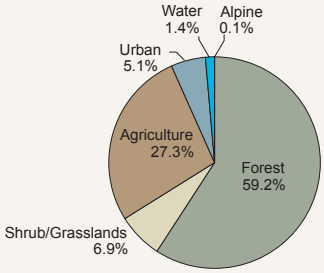
Restoration Issues

- Prioritize and implement efforts to improve water quality to comply with the TMDL along the mainstem and tributaries.
- Develop incentives for floodplain riparian forest restoration and restoring channel complexity.
- Address complex impacts to the aquatic system associated with urbanization.
- Link tributary actions to mainstem actions through the Governor's Willamette River Legacy Program.

Land Ownership

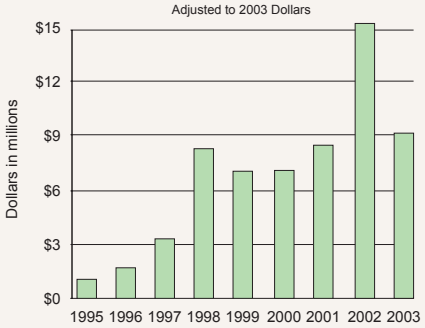


Land Cover

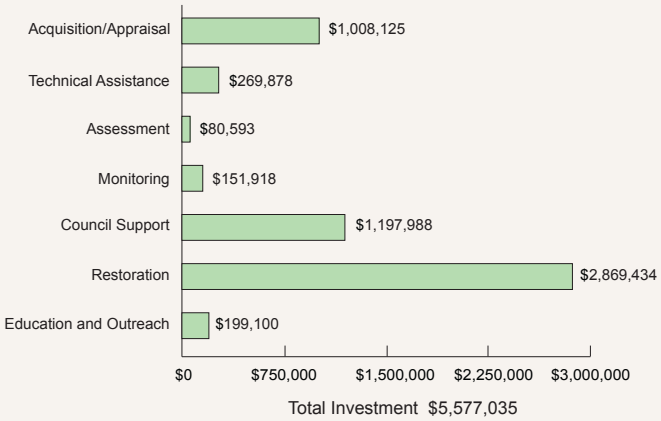


Investments

Funding for Completed and Reported Restoration by Year, 1995-2003

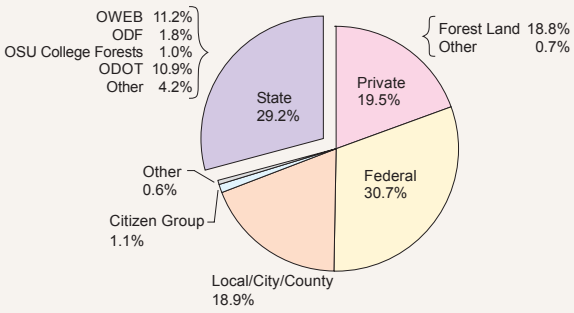


OWEB Investment in Restoration and Capacity
2003–2005 Biennium



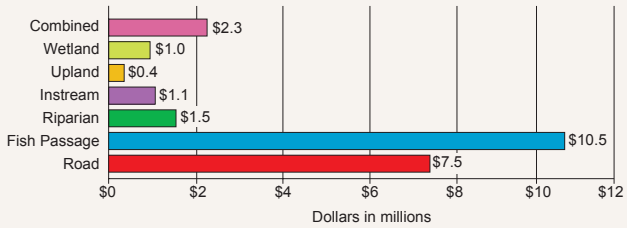
Total Investment $5,577,035

Source of Funding for Completed and Reported Restoration, 2002 and 2003



Based on $24.3 Million Reported

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



Accomplishments

- Funded a Willamette Basin restoration prioritization process tiered to the Northwest Power and Conservation Council (NWPCC) Willamette Subbasin Plan and TMDL for addressing limiting factors and opportunities.
- Fish passage improvement projects were completed for major subbasin tributaries.
- Restoration projects focused on opportunities for improving and enhancing off-channel, backwater and wetland rearing habitats throughout the basin.
- Projects have been implemented to address stream channel complexity (by placing large wood structures) for fish habitat in subbasin tributaries.

Agency Actions

A key premise of the Oregon Plan is that effective actions by government agencies are needed to improve the status of Oregon's watersheds. This premise recognizes the role of state agencies to implement existing regulatory programs to protect natural resources. Agency actions, in combination with the voluntary watershed conservation and restoration efforts of local groups, work to improve water quality, recover salmonid populations, and restore watershed health.

Oregon Plan Teams

A network of interagency teams comprised of volunteers from agencies and organizations, 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 plan.

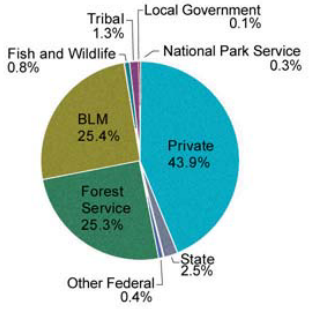
Monitoring Team – coordinates monitoring, data management and analysis among state, federal and local agencies and partners.

Region Teams – provides forums for agency managers and staff from different regions of the state meet regularly to coordinate efforts on Oregon Plan-related matters.

General Observations

- The Oregon Coastal Coho Project assessment confirms the value of Oregon's wide-ranging investment in native fish recovery and watershed health restoration. Lessons learned over the last eight years in coastal watersheds will guide strategic prioritization of future actions on the coast and improve restoration programs in other areas of the state.
- Oregon has completed development of Agricultural Water Quality Management Area Plans and is on schedule to complete Total Maximum Daily Loads (TMDLs) as approved by the U.S. Environmental Protection Agency (EPA).
- Interviews with private landowners, watershed councils, and soil and water conservation district staff across the state reveal four continuing hindrances to Oregon Plan implementation: 1) permits for restoration work can be difficult and time consuming to obtain; 2) technical assistance remains insufficient; 3) opportunities exist to better coordinate agency activities; and 4) landowner incentives are inadequate.
- The Conserved Water Program is an underutilized tool for restoring instream flows.
- Improvements to the Conservation Reserve Enhancement Program have led to a marked increase in participation; however agency resources cannot keep pace with the technical assistance needed to meet the needs of landowners who enroll in the program.
- There is an important need to identify restoration priorities to target investments in restoration at the basin scale using subbasin plans developed for the Northwest Power and Conservation Council and Watershed Assessments developed for OWEB.

Statewide Land Ownership



Over half of Oregon is in public ownership and their management programs are essential to watershed health and recovery of listed species.

Accomplishments and Ongoing Efforts

Regulatory Baseline Compliance

Executive Order 99-01, which established the Oregon Plan for Salmon and Watersheds, directs state agencies with regulatory programs to determine levels of compliance with regulatory standards and identify and act on opportunities to improve compliance.

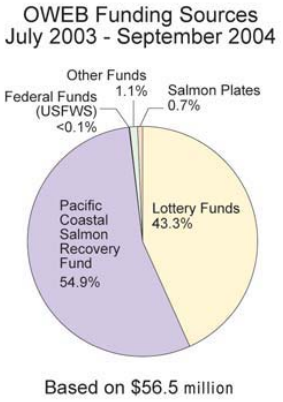
- The Oregon Department of Agriculture's Confined Animal Feeding Operation (CAFO) inspection program intends to inspect every permitted operation at least once each year. In 2004, 98% (584/596) of the permitted sites were inspected, and 87% of these were in compliance with permit conditions.
- The Oregon Department of Forestry routinely evaluates Oregon Forest Practices Rules for compliance and effectiveness. Statewide compliance with rules intended to protect watershed health tends to exceed 90%.
- The Oregon Department of State Lands (DSL) monitored 14% of the permits issued during FY 2002-2003 and 2003-2004 – approximately 70% were in compliance with permit conditions.

Water Quality Restoration

- Agricultural Water Quality Management Area Plans are completed for the entire state. The Oregon Department of Agriculture (ODA) will shift from planning to implementation. ODA has taken a leadership role in implementation of the Conservation Reserve Enhancement Program, a voluntary incentive-based program to encourage agricultural conservation practices.
- Total Maximum Daily Load (TMDL) Water Quality Management Plans are complete and approved by Environmental Protection Agency (EPA) in 17 of 91 subbasins. Plans are under development in an additional 43 basins.
- The Oregon Department of Environmental Quality (DEQ) completed the public review draft of the Willamette Basin TMDL. This is the most ambitious TMDL undertaken by DEQ to date. In addition to the size of the basin, it is the first TMDL that addresses mercury levels in the basin. (Mercury levels in certain fish exceed safe levels for human consumption.) The Willamette Basin TMDL also addresses water quality problems associated with temperature and bacteria.
- Road surveys on state forest lands are complete; however, a revised protocol to evaluate multiple risks to streams is now being used to update the survey. All major culverts blocking fish passage on state forest lands have been identified and most have been repaired.

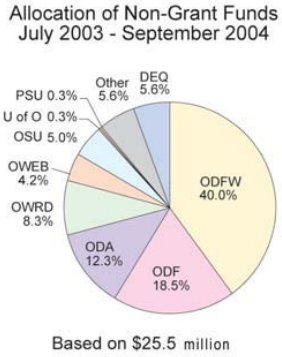
Habitat Condition Assessment

- The Oregon Department of State Lands (DSL) cooperated with OWEB, the U.S. Fish and Wildlife Service, and the EPA to complete an inventory of wetland changes for the Oregon coastal lowlands over the last 20 years.
- DSL approved wetland inventories in ten cities during FY 2002-2003 and 2003-2004.
- DSL is developing a tidal hydrogeomorphic model to characterize coastal wetlands.
- One hundred twenty watershed assessments have been completed by local watershed groups statewide using a common Oregon Plan methodology developed by OWEB. These assessments include all Oregon coastal drainages, the majority of watersheds in the Willamette Basin, and significant watersheds in central and eastern Oregon. These watershed assessments inform the selection of restoration projects by local watershed groups, were used in the development of regional subbasin plans, and will inform OWEB basin restoration funding priorities.



The Source of OWEB Funds

OWEB is funded through several sources. In the 2003-2005 Biennium, the majority of OWEB's funds were from the federal Pacific Coastal Salmon Recovery Fund (55%) and Measure 66 State Lottery dollars (43%). Other sources accounting for less than three percent of OWEB's funding include federal US Fish and Wildlife Service funds and State of Oregon Salmon License Plate funds. This funding can be split into two major categories– grant funding and non-grant funding.



Nongrant funds were passed to other entities to support Oregon Plan activities either through legislative appropriation or OWEB Board decisions. More than 75% of the funds were appropriated by the Legislature to serve Oregon Plan needs. Most of the non-grant funding went to the Oregon Departments of Fish and Wildlife, Forestry, and Agriculture.

Water Quantity Restoration

- Statewide priority areas for streamflow restoration, identified in 2002 by the Oregon Water Resources Department (WRD) and the Oregon Department of Fish and Wildlife (ODFW), continue to be used by watermasters, watershed councils, SWCDs, Oregon Water Trust, OWEB and others to identify key stream reaches where instream leases, conservation projects, and transfers would most benefit critical fish runs.
- WRD completed an inventory of significant water diversions statewide.
- Protected instream flows have increased by more than 500 cubic feet per second (cfs) since 1997. These increased flows are attributable to a combination of leases, transfers and the conserved water program:

	1997	2004
Leases	33.2 cfs	416.0 cfs
Transfers	2.1 cfs	154.6 cfs
Conserved Water Program	0.1 cfs	1.6 cfs
TOTAL	**35.4 cfs**	**572.2 cfs**

Fish Management & Passage

- From 2002-2003, 391 fish passage projects were reported as completed, and 691 stream miles were reported as being made newly accessible to fish populations.
- Implementation of the Native Fish Conservation Policy (NFCP) has been among the highest priorities for the Oregon Department of Fish and Wildlife (ODFW). The agency and its partners are in the process of developing conservation plans for a variety of species, including coastal coho salmon, Rogue River spring chinook salmon and interior redband trout.
- The Coastal Coho Project has been a primary focus for ODFW. The Coastal Coho Project assesses the state's progress under the Oregon Plan for coastal coho salmon and will inform the pending listing decision by NOAA Fisheries. New analyses confirmed the contribution of current harvest and hatchery management practices to the recovery of coastal coho. Significant investments in monitoring over the past eight years provide a framework for analysis and for prioritizing future monitoring investments statewide.

- A draft Stock Status Review mandated by the NFCP was completed. The final report is due in 2005. This status report on Oregon's native fish will establish priorities for conservation planning and restoration efforts across the state for the next decade.
- Hatchery management programs continue implementation consistent with conservation and recovery of native fish prior to revision in accordance with the NFCP.
- Ocean harvest rates of coastal coho continue to be strictly managed in accordance with recovery needs.
- Accelerated funding since the 1999-2001 Biennium provided technical support and materials for private landowners to install fish screens at 545 water diversions statewide. About 3,000 of 70,000 diversions are on a high priority list for screening.
- Water diversions statewide are being mapped; surveys will note location, type, and status of screens.

Agency Actions Supporting Voluntary Restoration

- Many state and federal agency staff routinely assist private landowners, soil and water conservation districts, and watershed councils with the design and implementation of habitat restoration projects. For example, ODFW habitat biologists devote roughly 6,000 hours per biennium helping private landowners with their projects. Unfortunately, a complete accounting of all agency staff time spent on these activities is unavailable.
- During 2002-2003, local, state, federal, and private Oregon Plan partners invested $96,202,893 in voluntary restoration projects statewide.

Challenges

Regulatory Baseline: Systematic evaluation of regulatory compliance rates and effectiveness of regulatory programs needs to be refined and expanded.

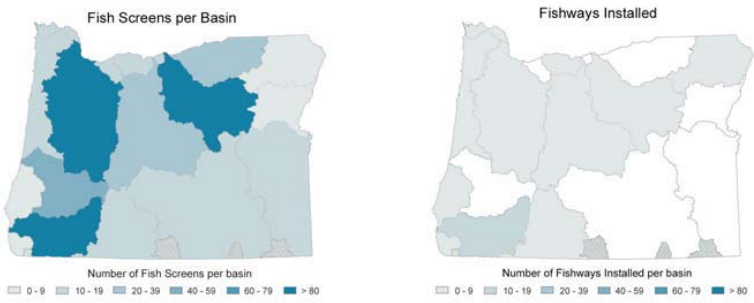
Water Quality Plans: Moving from planning to implementation of TMDL and Agricultural Water Quality Management Area Plans will require compliance evaluations, creation of incentives, ongoing outreach and technical assistance, and effectiveness monitoring.

Permitting: Opportunities for permit streamlining need further examination in order to reduce existing barriers to accomplishing restoration work.

Technical Assistance: In spite of recent progress, government coordination and availability of technical assistance needs further improvement. Recent surveys identified technical assistance and coordination as a significant limit to conservation/ restoration actions by landowners.

Fish Management: Implementation of the Native Fish Conservation Policy will require coordination with other agency programs and the participation by stakeholders with diverse interests.

Water Quantity: Stabilizing or enhancing instream flows for fish remains critical to successful implementation of the Oregon Plan in a large number of watersheds.

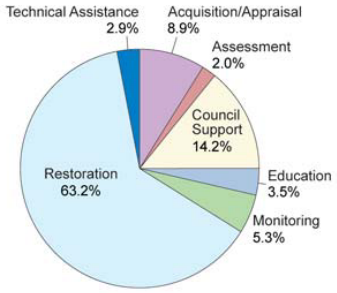


Work is underway to identify and assess water diversion statewide. In recent years fish screens were installed at 545 diversions, but screens are still needed at about 3,000 high priority water diversions around the state.

Voluntary Restoration Actions by Oregonians

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. Continued investments from OWEB and assistance from other state and federal agencies are critical to support local voluntary restoration actions.

Distribution by Type



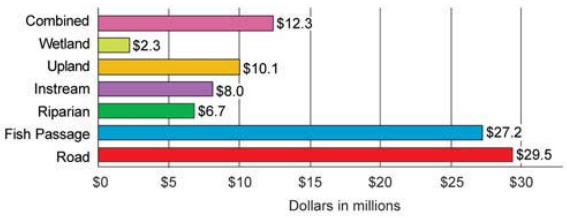
Based on $30.9 million

Within OWEB's Grant Program for the period of July 2003 - September 2004, the majority of dollars were put toward on-the-ground watershed restoration (63%). Approximately 14% of grant funds were allocated to watershed council support. A recent study shows that each dollar granted for watershed council support brings an additional $5 into the local economy. A total of $30.9 million in OWEB grant funds was available for local voluntary restoration actions during the period of July 2003 - September 2004.

General Observations

- Setting priorities for restoration work across Oregon is an evolving process that is improving over time. The availability of OWEB-funded watershed assessments throughout the state, coupled with Columbia Basin subbasin plans, offer useful tools to develop common priorities at a basin scale. As priorities are established, Oregon Plan partners will be better able to evaluate and choose strategic investments that effectively target watershed restoration, water quality improvement, and fish and wildlife recovery needs.
- Watershed councils have completed watershed assessments in most basins of the state. These assessments support local project prioritization and work plan development.
- Industrial timber companies made the largest single source of restoration investment reported by private landowners.
- Restoration work on private lands is limited by the availability of technical assistance for project design and permitting.
- Restoration investments by agricultural landowners remain underreported.
- A study of OWEB grants from 1997-99 found that 80% of all grant funds remain in the county in which the grant is awarded, with every restoration dollar invested generating additional economic stimulus to the local economy.

Funding for Completed and Reported Restoration by Activity Type, 2002 and 2003



2002-03 Completed and Reported Restoration Work:

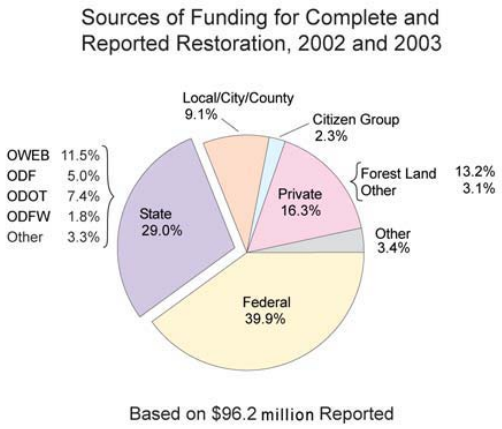
The Oregon Watershed Restoration Inventory (OWRI) was established in 1995 to track completed restoration work. Except for projects funded by OWEB, all reporting to this database is voluntary. While participation in reporting continues to grow, it remains difficult to account for much of the restoration work that has occurred in Oregon. Projects on agricultural lands are underreported by the OWRI because of limited private landowner reporting. Restoration on some federal lands and restoration using some federal funds is also underreported, due partly to incompatible inventory and accounting methods.

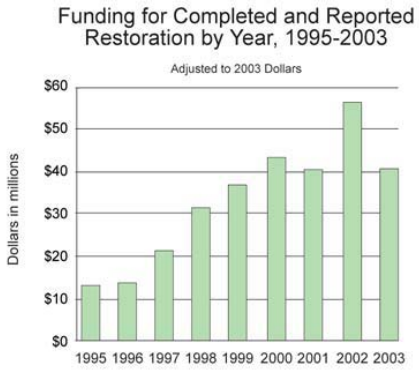
The information reported in this section includes data from the OWRI, the Pacific Northwest Forest Plan's Regional Ecosystem Office (REO), and from the Grande Ronde Model Watershed Program (GRMWP).

Summary of Restoration Accomplishments:

- Private lands restoration was reported in every Oregon Plan reporting basin (OWRI 2002-2003).
- Statewide, work was completed to improve ~1,870 miles and decommission ~390 miles of roads. Many of these projects reduce sediment in streams (OWRI 2002-2003).
- Fish passage work included improving ~390 road crossings and retiring 24 push-up dams (OWRI 2002-2003).
- Road crossing work improved fish access to ~320 stream miles (OWRI 2002-2003).
- Other completed projects included work to improve the riparian condition of ~750 stream miles, plus instream and upland habitat improvement work (OWRI 2002-2003).
- Of the ~6,600 restoration projects reported to the OWRI, ~20% were on private lands (OWRI 2002-2003).
- More than 13,000 acres of riparian land, (approximately 1,100 stream miles), are enrolled under the Conservation Reserve Enhancement Program (CREP). Enrollment in CREP increased significantly in 2004.
- Statewide reported investment in restoration completed during 2002-2003 was over $96 million.

Voluntary restoration actions on privately owned lands are the essence of the Oregon Plan. Sustained investment and assistance from OWEB and other state and federal agencies is key to successful voluntary restoration. Watershed restoration under the Oregon Plan not only benefits the physical environment, but also makes social and economic investments in the local community. A recent study found that 85% of watershed restoration work contracted out by watershed councils goes to local contractors in the county in which the work is being done.





Ongoing Voluntary Restoration Work

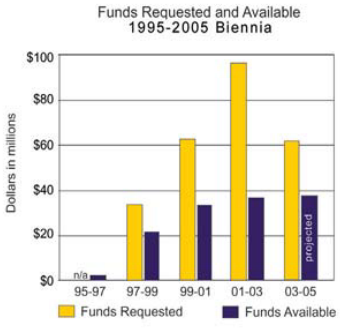
Watershed restoration projects can take several years to complete. The reporting of completed restoration work to the OWRI can occur several years after the OWEB Board decision approving a grant to initiate the work. To capture projects in progress that are not yet completed or reported, OWEB tracks grant awards by location, amount, and activity type. Currently there are over 500 open OWEB grants, totaling over $44 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. It is impossible to know the total value of the work that will be generated by these open grants.

Active Grants

Basin	Number of Projects	Total Awarded	Unspent Balance
STATEWIDE	14	$764,000	$592,000
UMPQUA	29	$1,234,000	$1,076,000
LOWER COLUMBIA	13	$1,272,000	$908,000
HOOD	14	$1,523,000	$874,000
UMATILLA	19	$1,555,000	$766,000
GRANDE RONDE	39	$1,648,000	$1,205,000
POWDER	18	$1,655,000	$1,447,000
OWYHEE - MALHEUR	21	$2,009,000	$982,000
JOHN DAY	46	$2,258,000	$1,592,000
DESCHUTES	40	$2,444,000	$1,864,000
KLAMATH	18	$2,566,000	$1,796,000
LAKES BASINS	21	$3,464,000	$3,287,000
NORTH COAST	63	$4,185,000	$1,936,000
SOUTH COAST	30	$4,530,000	$2,260,000
WILLAMETTE	83	$6,707,000	$4,743,000
ROGUE	51	$6,751,000	$5,113,000
TOTAL	**519**	**$44,565,000**	**$30,441,000**

The table above 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.

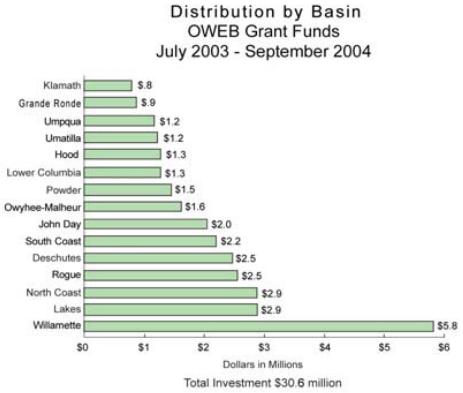
Since 1995, funding for watershed restoration increased as new funding sources such as Measure 66 State Lottery and Pacific Coastal Salmon Recovery Fund (PCSRF) dollars became available. Each biennium, the amount of funds requested exceeded the amount of funds available for grants.



Cumulative Accomplishments

Inconsistent reporting and information sharing limits the effectiveness of any effort to characterize cumulative restoration work in Oregon. The limited data available show that the amount of restoration work completed has increased over time. While some fraction is likely attributable to more diligent reporting, it appears that the vast majority of the documented increase is real because:

- more funding is available;
- more local institutional capacity exists at the local level, e.g., watershed councils and SWCDs;
- more technical support is available from government agencies;
- the public is more aware of the need for restoration; and
- landowners have had the opportunity to see projects implemented in their region and evaluate for themselves the value and effects of the projects.



Challenges Ahead

Landowner Incentives: Cost-share and other incentive funds are crucial to private restoration work. The availability of some form of economic incentive is frequently the ultimate deciding factor for many private landowners who consider participation in voluntary watershed restoration and fish recovery work.

Restoration Priorities: Involvement of basin stakeholders is critical to set effective priorities and achieve key objectives of the Oregon Plan. Development of subbasin plans in the Columbia Basin has materially improved the sense of priority setting. OWEB is actively working to develop a consistent format and adopt restoration priorities throughout the state to guide its funding decisions. OWEB's restoration priority setting will also incorporate lessons learned from the Oregon Coastal Coho Assessment risk factor analysis.

Documenting Restoration Work: Improved reporting from the agricultural landowner community and federal agencies is needed to more fully understand the progress of restoration efforts. Improved coordination between reporting databases of the state and federal land management agencies is also needed. Better coordination of reporting of restoration of upland conservation and aquatic restoration activities will also enhance our understanding of the relationship between these actions.

Engaging Urban/Suburban Areas: Urban and suburban areas have a great impact on their watersheds, yet local groups face significant obstacles to engaging urban and suburban residents to become more aware of their connection to the watershed where they live and work.

Watershed Restoration Outcomes in Oregon

Restoration Treatments	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Riparian miles treated	162	157	332	333	320	359	322	350	395	**2730**
Road: miles of road closures and decommissionings	234	45	137	282	373	270	312	206	186	**2045**
miles of road improvements	322	305	564	770	802	762	595	1026	840	**5986**
Fish Passage: stream crossings improved	51	85	177	325	291	250	301	229	162	**1871**
miles made accessible to fish due to stream crossing improvements	25	52	187	507	439	325	332	368	323	**2558**
push-up dams retired	10	6	5	14	8	8	15	22	2	**90**

Monitoring

Monitoring under the Oregon Plan documents current conditions of watersheds, tracks changes over time, and facilitates analysis of the effectiveness of conservation and restoration efforts. Monitoring is essential to understanding watershed health and setting restoration priorities.

The North Coast Explorer

Information helps local citizens and policymakers make better decisions about natural resources, including salmon and watersheds in Oregon's North Coast region.

General Observations

- Oregon's recent assessment of the Oregon Coastal Coho ESU was strengthened by the diversity and quality of monitoring data that have been collected in the coastal area as part of the Oregon Plan. The assessment initiated extensive re-examination of monitoring plans, data storage and analysis systems, and processes for integrating analyses and sharing information among agencies and others. Overall, the assessment has provided stimulus to improve sampling designs and enhance future multi-disciplinary analytical efforts, both in the ESU and across Oregon.
- Monitoring of habitat and water quality conducted since 1997 under the Oregon Plan provides a baseline to detect future trends (positive or negative) that could affect viability of the coho salmon on the Oregon Coast. The sensitivity (ability to detect change) of monitoring will increase substantially during the next 3-8 years as more data becomes available.
- Aside from the coho assessment, agency staff dedicated to conduct analysis of monitoring data is very limited.

Accomplishments

- Oregon has established an Internet-based Data Library to house and distribute data and information related to the coho ESU assessment. This will improve Oregon's information archival and retrieval capability by developing a tool that can be applied and used statewide in the future.
- Based on legislative direction to coordinate data and make natural resource information available to the public, OWEB contracted with the Oregon State University, Institute for Natural Resources to develop an interactive website for information about Oregon Plan efforts on the North Coast. This website provides public access to data and information about Oregon Coastal watersheds from a wide variety of sources. The website, http://northcoastexplorer.info/ provides information about the Oregon Coast and allows users to search and map data that can be used for a variety of purposes. This site is being evaluated for its usefulness to the public for possible expansion to other parts of the state.
- Oregon is participating in a regional partnership of state, federal, and private entities called the Pacific Northwest Aquatic Monitoring Partnership (PNAMP). PNAMP has identified common approaches to status and trend monitoring, and is developing effectiveness monitoring protocols for the region. The group's goal is to make data available that can be analyzed across state and federal boundaries and jurisdictions.

Science Oversight

The Independent Multidisciplinary Science Team (IMST) is a seven-member scientific review panel charged with advising the State of Oregon on matters of science related to the Oregon Plan for Salmon and Watersheds. These matters include fish recovery, water quality improvements, and watershed health enhancement. IMST evaluation of the scientific basis for programs provides the public, the Governor, and the Oregon Legislature with a frame of reference when considering policy decisions affecting Oregon Plan implementation.

IMST Members

Stan Gregory
Department of Fisheries and Wildlife, Oregon State University, Corvallis

Bob Hughes
Department of Fisheries and Wildlife, Oregon State University, Corvallis

Nancy Molina
USDI Bureau of Land Management, Portland

Carl Schreck
Oregon Cooperative Research Unit, USGS, Corvallis

Rich Shepard
Applied Ecosystem Services, Inc., Troutdale

Carl Yee
Yee Forestry Associates, Bend

There is currently one vacancy on the IMST.

General Observations

- An important finding of Oregon's Independent Multidisciplinary Science Team is the need to incorporate the landscape perspective into implementation of the Oregon Plan. The functioning of whole watersheds and salmon populations is 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, ocean conditions, and natural disturbance regimes.
- Broad recognition and acceptance of a common set of science research priorities by agency funders – plus a willingness to coordinate decisions – is essential to Oregon Plan implementation and evaluation.

Accomplishments of the IMST in 2003-05 include the following documents:

- Oregon's Water Temperature Standard and its Application: Causes, Consequences, and Controversies Associated with Stream Temperature. Technical Report 2004-1.
- Straightforward Answers to Straightforward Questions. Excerpt from Technical Report 2004-1.
- IMST Review of the USFWS and NMFS 2001 Biological Opinions on Management of the Klamath Reclamation Project and Related Reports. Technical Report 2003-1.

Ongoing work of the IMST includes:

- Impact of Urban and Residential Land Uses on Watershed Function.
- Eastern Oregon Resources Management.
- Oregon Coastal Coho Assessment. IMST is reviewing the draft assessment developed under the Coastal Coho Project.
- The IMST has agreed to review ODFW's draft statewide assessment of status of Oregon's fish stocks in 2005.

A review of IMST activities, scheduled work, and completed reports is at:

http://www.fsl.orst.edu/imst/index.html

OWEB Board Observations

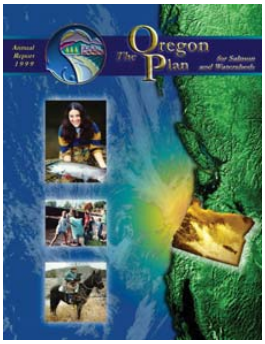
Every year, Oregon Plan participants respond to difficult challenges, develop new partnerships to solve problems, and put into place actions to restore and improve watershed health. OWEB Board members and staff work with many people around the state on these issues, and we have learned a great deal from this experience. Some watershed restoration and Oregon Plan implementation issues are shared in many basins across the state. The following observations make special note of these issues.

- *Long-term success of the Oregon Plan will require persistent and strong leadership from the Governor, the Legislature, and local citizens.* The effort under the Oregon Coastal Coho Project demonstrates how leadership from the Governor's Office helped coordinate state agency actions in a strategic manner. This valuable exercise is assisting the state to more clearly understand what it has accomplished, manage data more effectively, and develop priorities for future actions.
- *Oregon Plan investments in communities benefit watershed health and local economies.* The health of local economies and watersheds is inextricably linked, and Oregon Plan efforts are most successful where this is openly recognized and discussed.
- *Successful implementation of the Oregon Plan is dependent on sustained investments*:

  For private landowners – OWEB grant funds administered competitively to help fund projects that assist landowners willing to undertake restoration projects often receive significant matching funds from other sources. These funds provide a powerful economic incentive to fulfill the goals of the Oregon Plan.

  For watershed councils and soil and water conservation districts – Funding to support the capacity of these local entities to work with citizens and landowners is essential to support Oregon Plan implementation.

  For state agencies – Stable budgets supporting programs and initiatives offering technical assistance and support for voluntary restoration work are critical.



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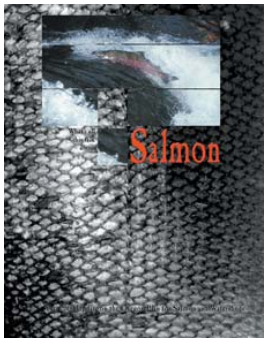

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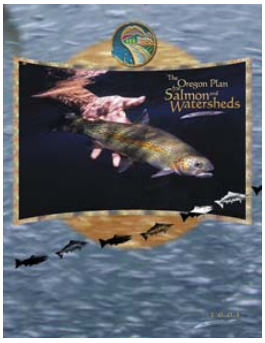

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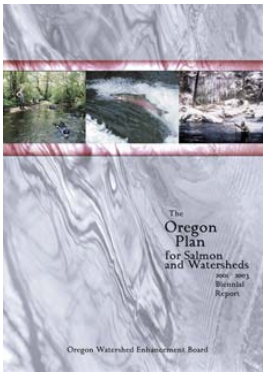

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OWEB Board Recommendations

ORS 541.405 directs the OWEB Board to make recommendations for enhancing the effectiveness of the Oregon Plan. The following recommendations identify the Board's suggestions on key areas to improve Oregon Plan implementation. Where appropriate, a brief discussion of ongoing actions that address the recommendation is included.

Secure Federal Recognition of the Oregon Plan:

State, federal, tribal and local recognition of the Oregon Plan as a vehicle for strategic, focused restoration efforts and investments to meet federal Endangered Species Act and Clean Water Act objectives should be pursued. Formal recognition and linkage to these federal environmental programs would provide measurable benefits to Oregon's natural resources, private landowners, and local economies.

- Efforts under the Oregon Coastal Coho Project include objectives to secure federal recognition of the Oregon Plan. In particular, the state recently submitted its coho assessment to NOAA Fisheries to inform the final listing decision for coastal coho salmon under the federal Endangered Species Act.

Develop and Implement Basin Restoration and Program Priorities:

Establishing clear priorities at a basin or other meaningful scale is needed to guide and focus restoration investments and Oregon Plan program initiatives into the future. Local, state, and federal participants in the Plan continue to accomplish meaningful progress improving key habitat, water quality, and watershed conditions throughout the state. Sustaining effective implementation over time, however, will require these efforts to be more strategically targeted to meet the most critical resource and community needs of each basin.

- OWEB is using regional subbasin plans and local watershed assessments to establish basin priorities to guide board funding decisions on habitat restoration and species recovery efforts.
- As part of the Oregon Coastal Coho Project, state agencies and stakeholders are developing a conservation and recovery plan that will focus priorities for future restoration and recovery efforts on the Oregon Coast.

Tracking Restoration and Recovery Trends:

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 Plan depends on our work and commitment to collect and assess monitoring data and report our findings to the public.

- The coastal coho assessment is the state's most detailed analysis to track progress under the Oregon Plan to date. New assessments in other parts of the state would enhance data sharing and focus priorities for more effective investments.

Improve Accessibility of Information:

A lack of consistent sharing and coordination of key information by Oregon Plan partners continues to inhibit and fragment restoration planning, implementation, and reporting. OWEB should take steps to improve the accessibility of data and information for a variety of uses.

- OWEB funded the development of two web-based pilots in the Willamette and North Coast that provide access to many sources of Oregon natural resources information for use by the public, businesses, agencies and academic researchers.
- Under the coastal coho project, OWEB funded the development of a management tool to improve the storage, inventory, and retrieval of data between and among agencies.

Enhance Citizen Understanding of the Oregon Plan:

Successful implementation of the Oregon Plan over the long term will depend on informed backing by Oregon's citizens. Enhanced outreach efforts are needed to develop a common understanding of the Oregon Plan among all Oregonians. We must communicate, using more effective messages and channels, that Oregon Plan actions to enhance fish habitat, improve water quality, and restore watersheds are working to support local values and economies.

- The Oregon Plan outreach team continues to work with other interested partners to increase citizen understanding of the Oregon Plan across the state.

Data Sources

Cartography and GIS
University of Oregon InfoGraphics Lab,
Department of Geography
Project Manager: Ken Kato
Lead Designer: Erik Steiner
Lab Director: Jim Meacham
Researchers: Mike Engelmann, Nick Kohler
Student Cartographers: Jon McConnel, Eric Sproles, Jacob Blair

Coho abundance: ODFW
Elevation: USGS (10 meter DEM)
EMAP Sampling: ODFW
Fish Passage: ODFW
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

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): Debra Kroeger, Jeanne Keyes, Jim Edmonds. The program is administered jointly between Bureau of Land Management and U.S. Forest Service staff. The database represents completed projects implemented on federal land. **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/.**

Writer/Editor: Jay Nicholas
Layout and Design: John Ame
Acknowledgements: Thanks for the production assistance by OWEB Grant, Fiscal, and Monitoring section staff. Special thanks also to our local, state, and federal partners who contributed to this report.

Acronyms

BLM	U.S. Bureau of Land Management
BPA	Bonneville Power Administration
CAFO	Confined Animal Feeding Operation
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	Evoluntionarily Significant Unit
GRMWP	Grande Ronde Model Watershed Program
IMST	Independent Multidisciplinary Science Team
NFCP	Native Fish Conservation Policy
NMFS	National Marine Fisheries Service (also referred to as NOAA Fisheries)
ODA	Oregon Department of Agriculture
ODF	Oregon Department of Forestry
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
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
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
WRD	Oregon Water Resources Department

OWEB BOARD MEMBERS

2004 - 2005

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 Senior Vice President of David Evans and Associates, and Executive Vice President of Energy Management Group. He serves as a public member of OWEB, and lives in Portland.

Jane O'Keeffe (Board Co-Chair) is a partner in the O'Keeffe Ranch and a natural resources consultant. She is also a former Lake County Commissioner. She represents the public at large on OWEB, and lives in Adel.

Mark Reeve serves as representative from the Oregon Environmental Quality Commission. He is an attorney and lives in Portland.

Bobby Brunoe is Head of the Natural Resources Division for the Confederated Tribes of the Warm Springs Indian Reservation. He serves as the tribal representative on the OWEB Board, and lives in Bend.

Skip Klarquist serves as representative from the Oregon Fish and Wildlife Commission. He is an attorney and lives in Portland.

Dan Thorndike is General Counsel for Medford Fabrication. He serves as the representative from the Oregon Water Resources Commission, and lives in Ashland.

Diane Snyder is Executive Director of Wallowa Resources. She serves as the representative from the Oregon Board of Forestry, and lives in Joseph.

Pat Wortman serves as the representative from the Oregon Board of Agriculture. He runs a cattle ranch near Enterprise. He is also a former Wallowa County Commissioner.

Paula Burgess* is the Associate Deputy State Director for Resources for the Oregon/Washington State Office of the U.S. Bureau of Land Management, and serves as the representative of BLM.

Scott Reed* is Executive Associate Dean and Extension Forestry Program Leader at Oregon State University in Corvallis. He serves as representative of OSU Extension Administration.

Alan Christensen* is the Assistant Director for Natural Resources for Region 6 of the U.S. Forest Service located in Portland and serves as representative of the U.S. Forest Service.

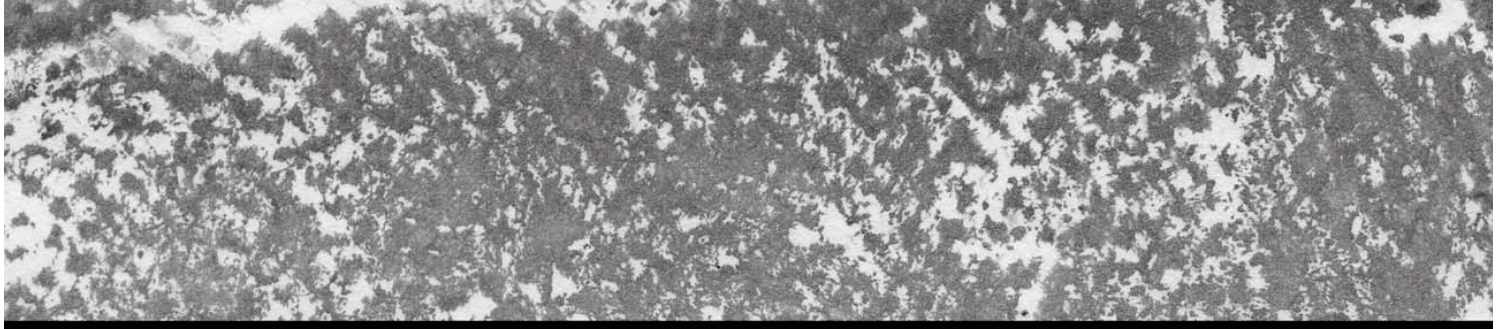
Dianne Guidry* is the Partnership Liaison with the U.S. Department of Agriculture Natural Resources Conservation Service, and represents them on the OWEB Board.

Dave Powers* is the Regional Manager for Forests and Rangelands at the U.S. Environmental Protection Agency in Portland, and represents them on the OWEB Board.

Michael Tehan* is the Oregon State Director for the Habitat Conservation Division of the National Marine Fisheries Service, and represents them on the OWEB Board.

Three public voting member positions are currently vacant.

* non-voting members



OWEB's Mission

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