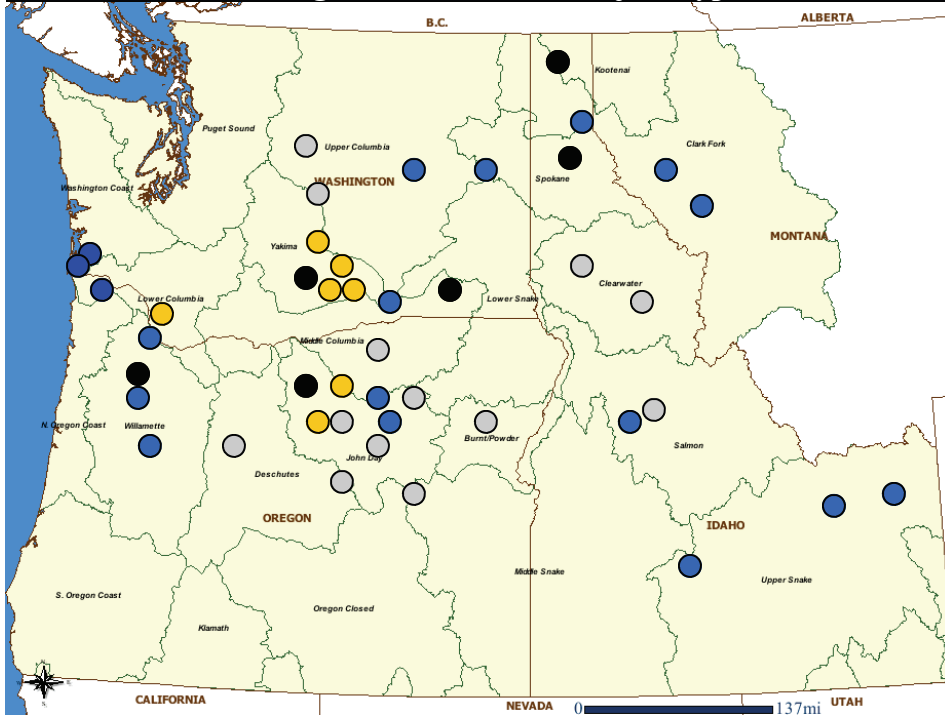


Columbia River Basin

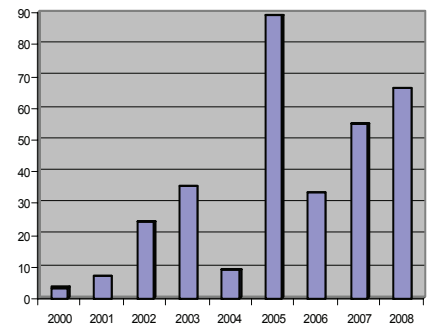
BPA Region-wide Habitat Project Types



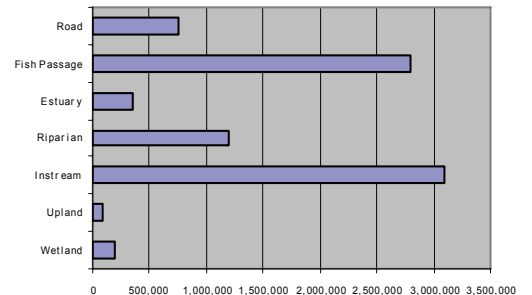
- Instream
- Riparian
- Wetland
- Restoration
- Upland
- Estuary
- Land Acquisition
- Water Acquisition
- RM&E

Funding for Region-wide Habitat Project Types

BPA Funding for Habitat Restoration by Year (in millions)



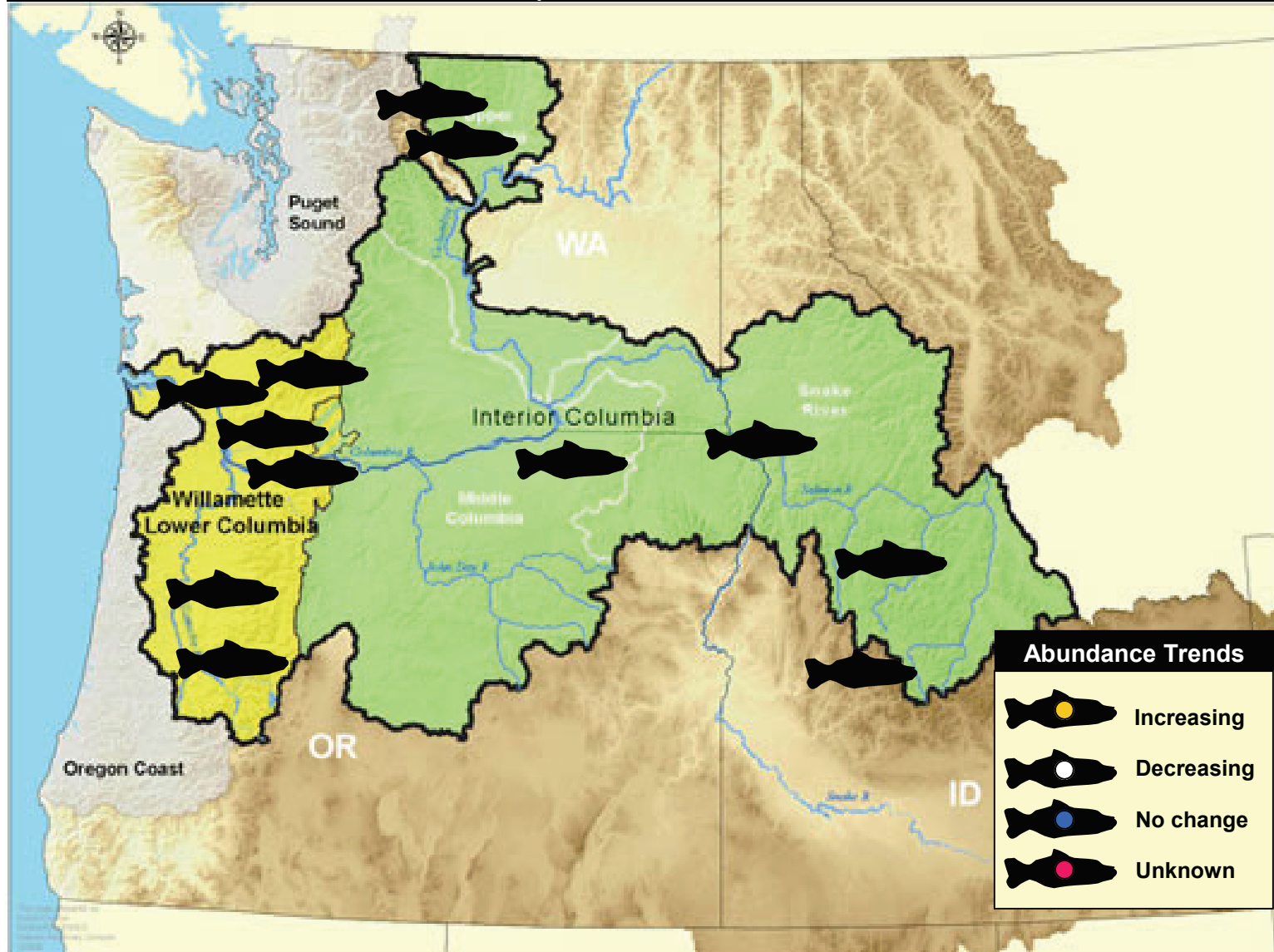
BPA Funding for Habitat Restoration by Activity Type (2007-2008)



BPA 2008 Region-wide Habitat Status

Project-type	Performance indicator	2000-2008 Average
Instream habitat projects	2,000 stream miles treated	1,850
Wetland habitat projects	8,445 acres created 20,100 acres treated 9,335 acres restored	7,500 16,345 8,250
Estuarine habitat projects	1,045 acres created 3,560 acres treated 2,845 acres restored	900 2,980 1,975
Land acquisition projects	132,00 acres acquired/protected 390 stream bank miles acquired protected	145,000 410
Riparian habitat projects	4,125 stream miles treated 25,600 acres treated	5,010 23,390
Upland habitat projects	410,360 acres treated 45,980 acres restored	345,500 60,790
Fish passage projects	3,845 barriers removed 7,900 stream miles accessed 375 fish screens installed	2,230 6,650 285
Watershed planning and assessment projects		
Research, monitoring, and evaluation projects	60,000 miles of streams monitored 135 assessments completed	58,350 105
Water acquisition projects	3,060 acre-foot of water restored to streams	2,450
Road projects	350 miles corrected	220

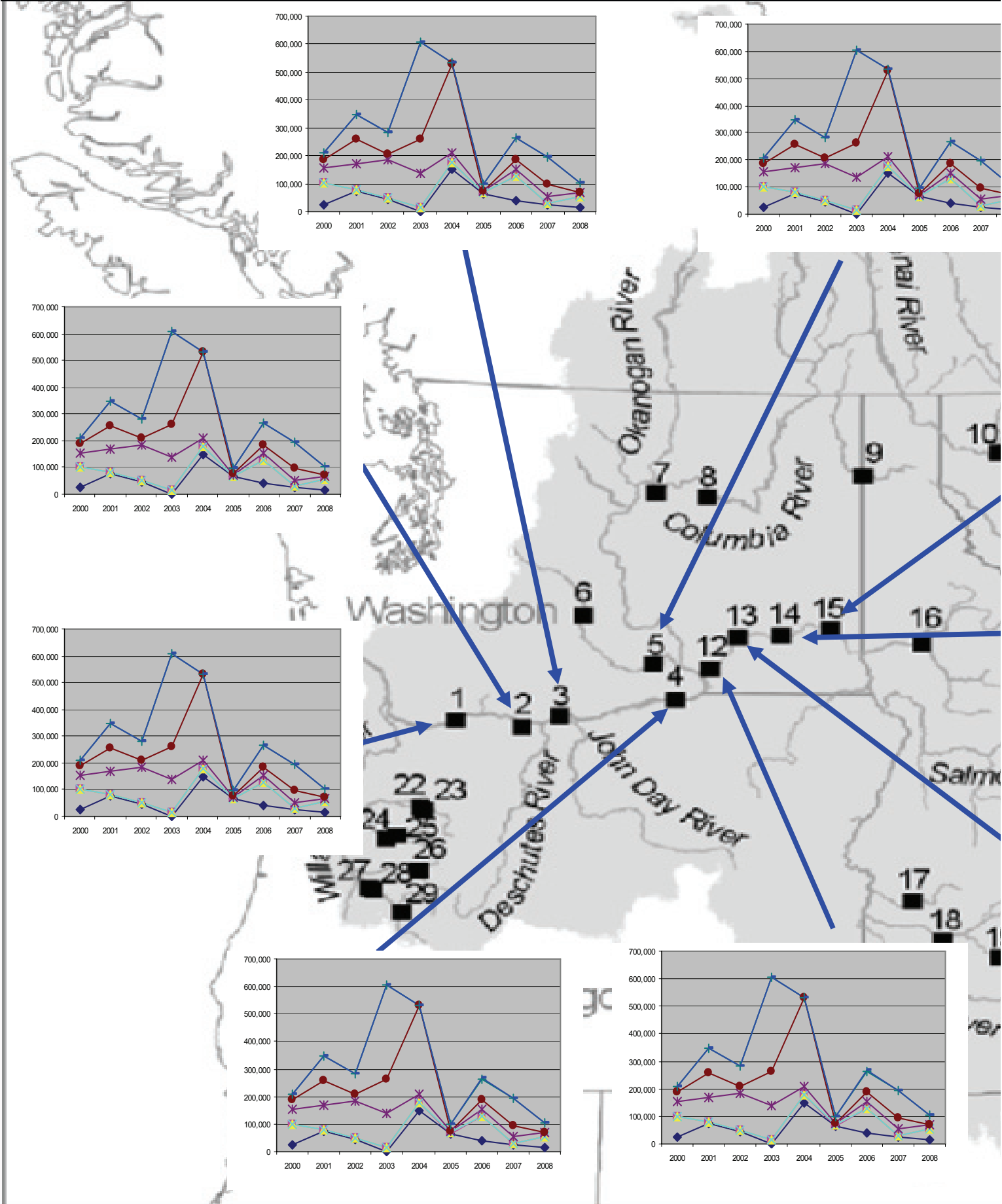
Status and Recovery of ESA-Listed Salmon and Steelhead



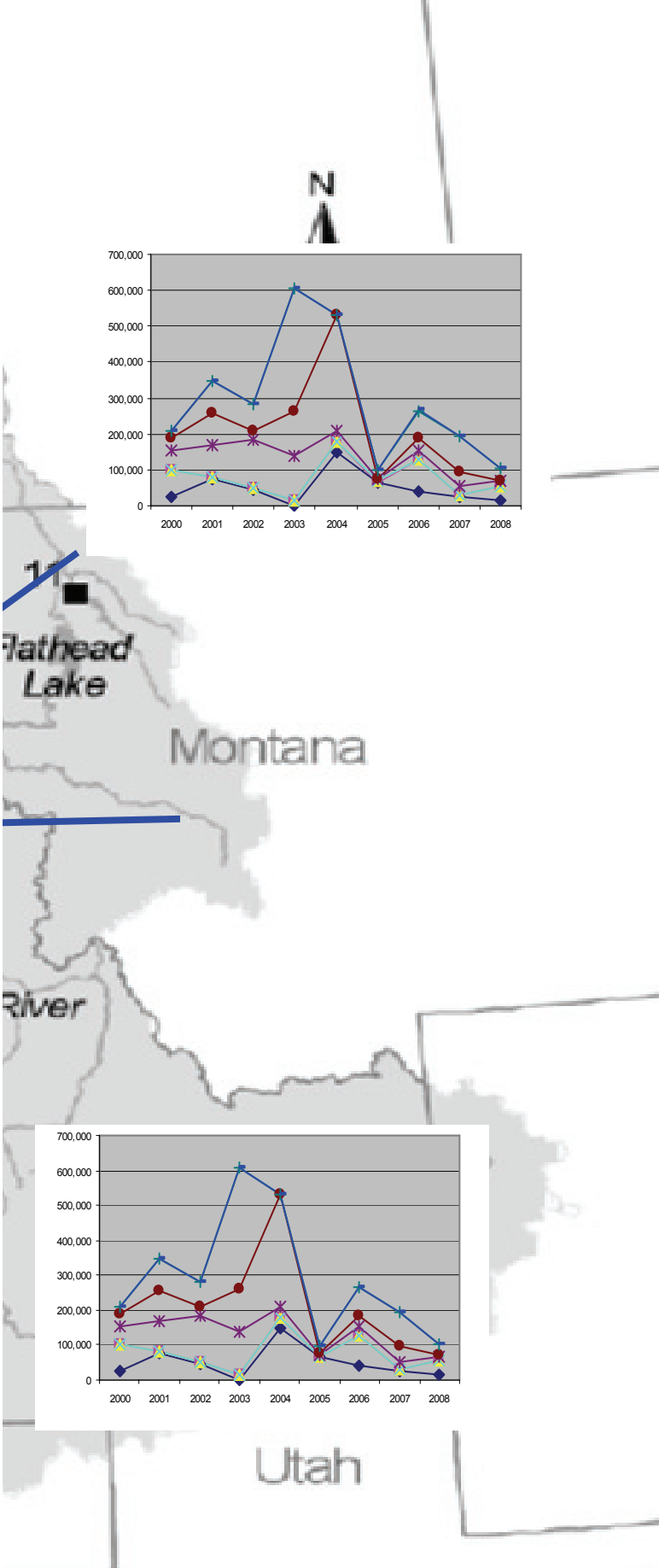
Species	ESU/DPS	Federal Designation (year listed)	Estimated Average Historical Abundance (circa 1900)	2007 Adult Returns (% hatchery and wild)
Chum Salmon	Columbia River	Threatened (1999)		
Chinook Salmon	Snake River Fall	Threatened (1992)		
	Snake River Spring/Summer	Threatened (1992)		
	Lower Columbia River	Threatened (1999)		
	Upper Columbia River Spring	Endangered (1999)		
	Upper Willamette River	Threatened (1999)		
Steelhead	Snake River Basin	Threatened (1997)		
	Lower Columbia River	Threatened (1998)		
	Middle Columbia River	Threatened (1999)		
	Upper Columbia River	Endangered (1997)		
	Upper Willamette River	Threatened (1999)		
Sockeye Salmon	Snake River	Endangered (1991)		
Coho	Lower Columbia River	Threatened (2005)		

Columbia River Basin

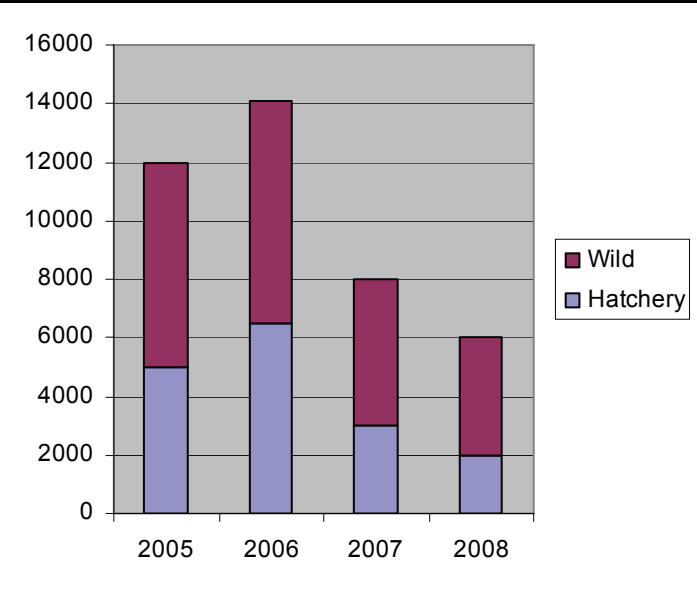
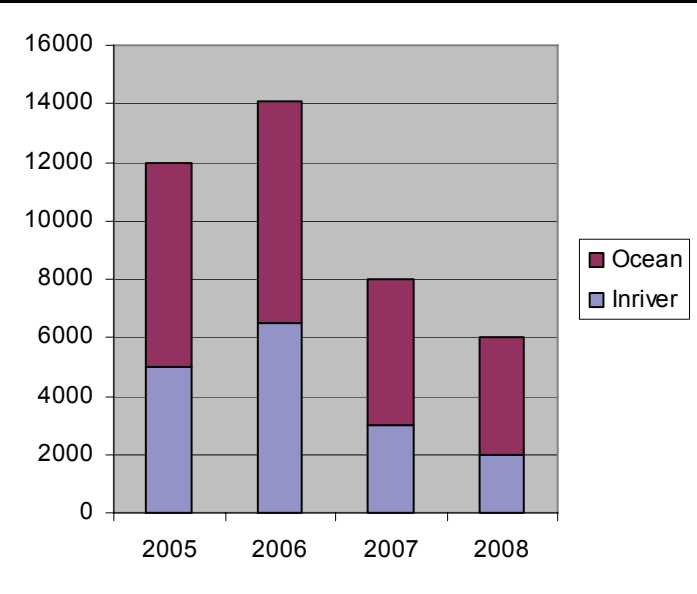
Adult Salmon and Steelhead Counts at Columbia River



Basin Dams (2000-2008)

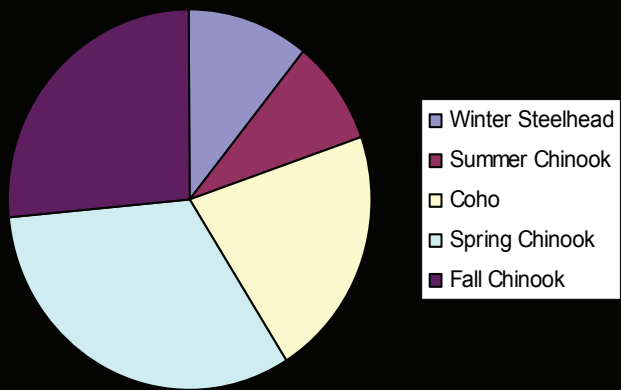


Columbia River Basin Salmon and Steelhead Harvest (2007-2008)



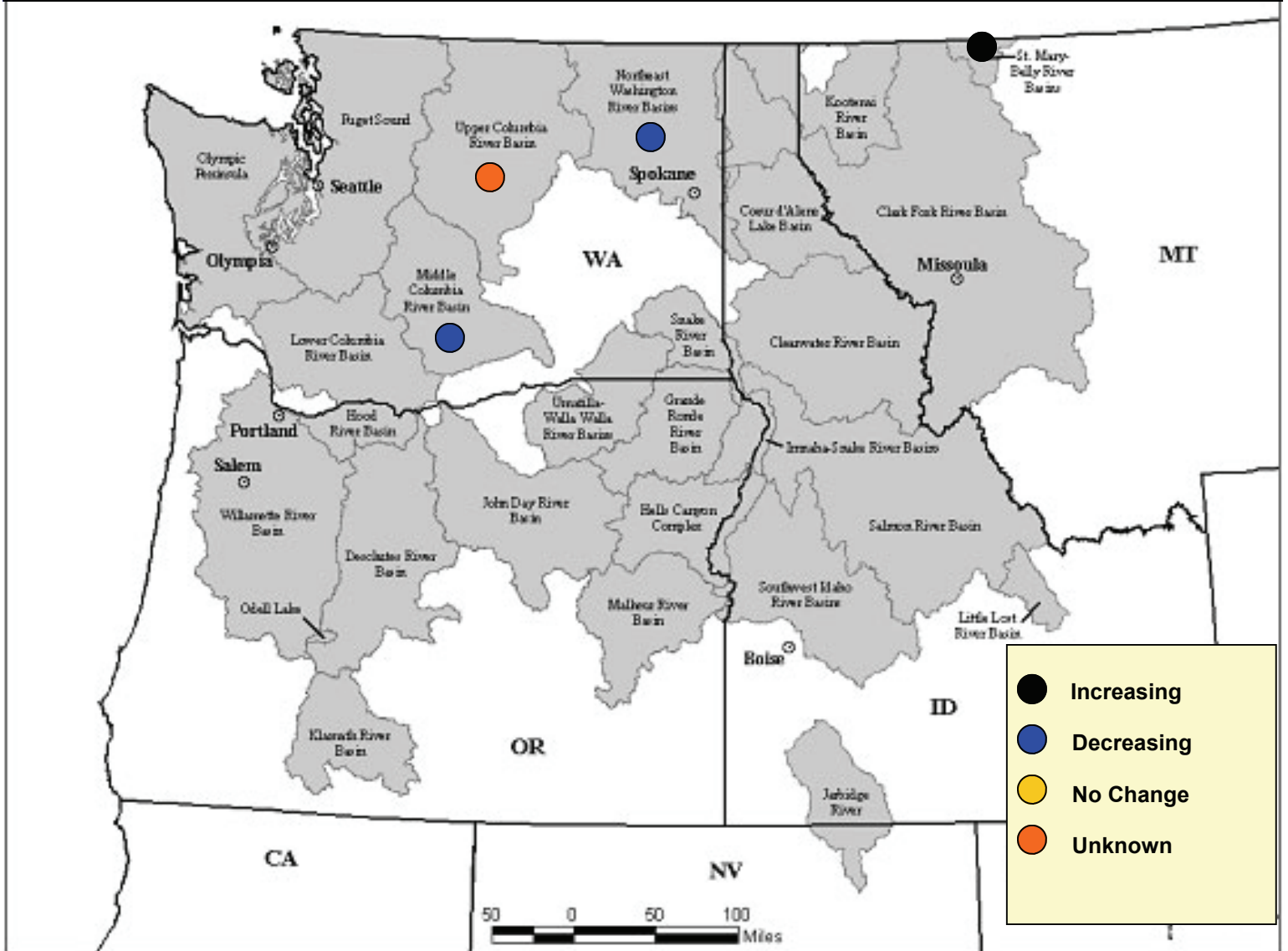
Hatchery Releases (2007-2008)

Total Release = #####



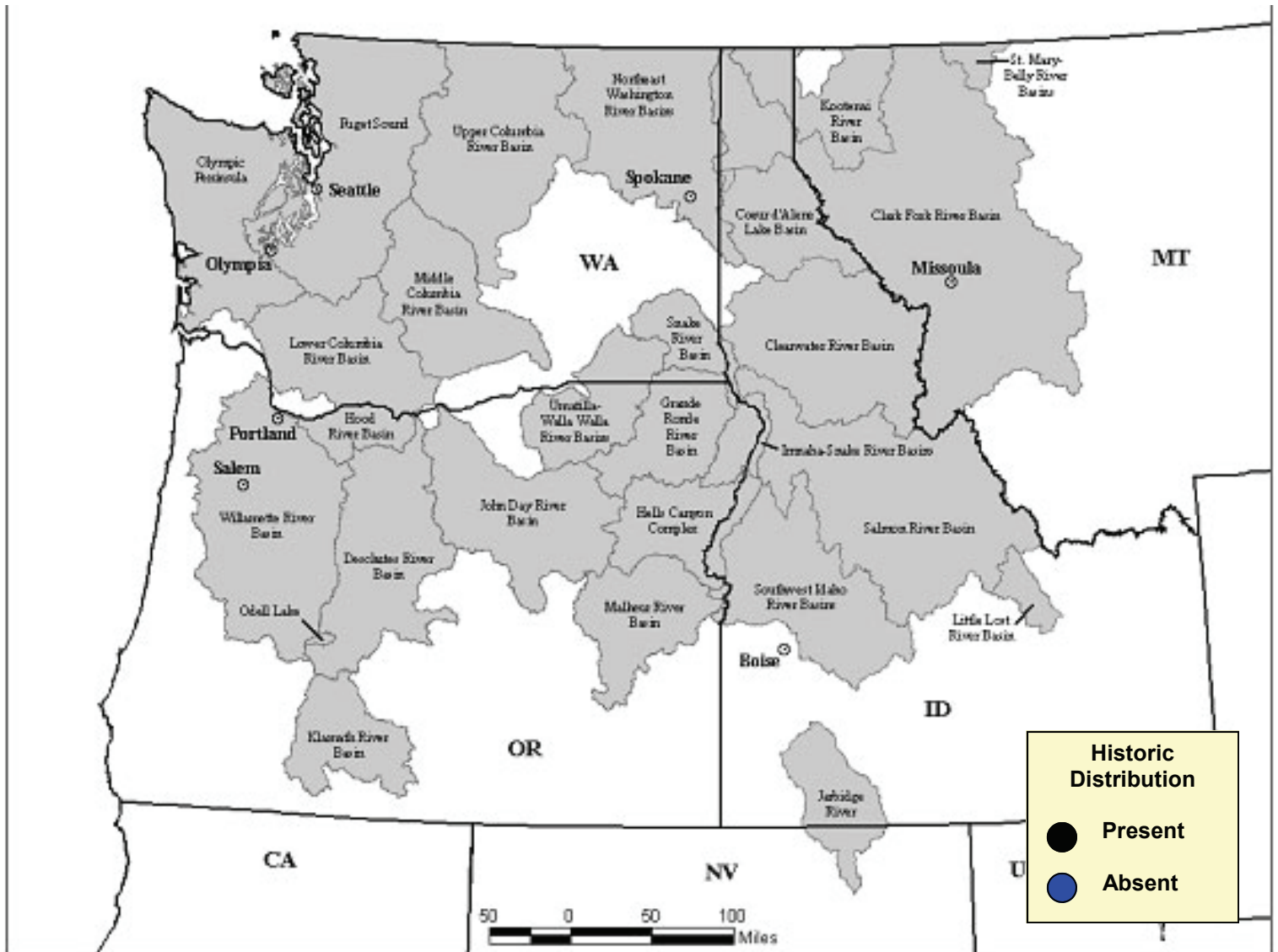
Columbia River Basin

Status and Recovery of ESA-Listed Bull Trout



Recovery Unit	Number of Local Populations	Number of Adult Spawners	Recovery Unit	Number of Local Populations	Number of Adult Spawners
Clark Fork River			Coeur d'Alene Lake Basin		
Kootenai River			Clearwater River		
Willamette River			Salmon River		
Hood River			Southwest Idaho		
Deschutes River			Little Lost River		
Odell Lake			Lower Columbia River		
John Day River			Middle Columbia River		
Umatilla-Walla Walla River			Upper Columbia River		
Grande Ronde River			Northeast Washington		
Imnaha-Snake River			Snake River Washington		
Hells Canyon Complex			Jarbidge River		
Malheur River					

Status and Recovery of Pacific Lamprey

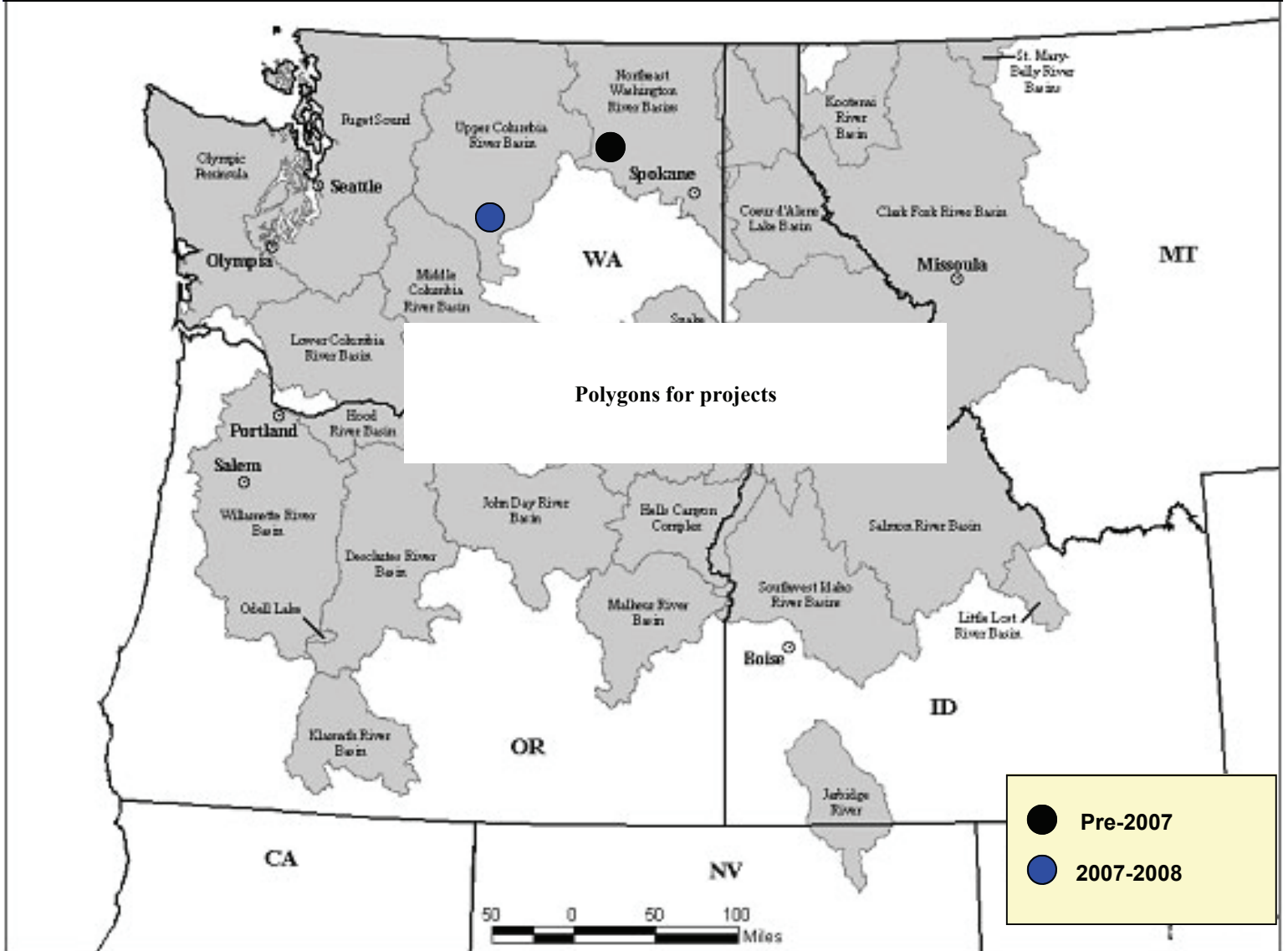


Information to be included in this section :

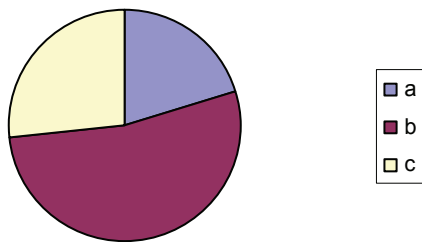
- Dam Counts
- Projects
- Funding

Columbia River Basin

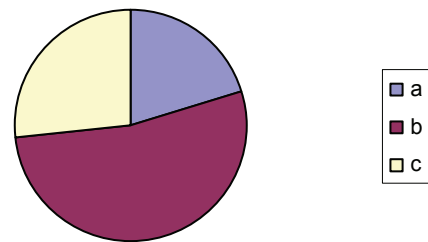
Wildlife Acquisitions



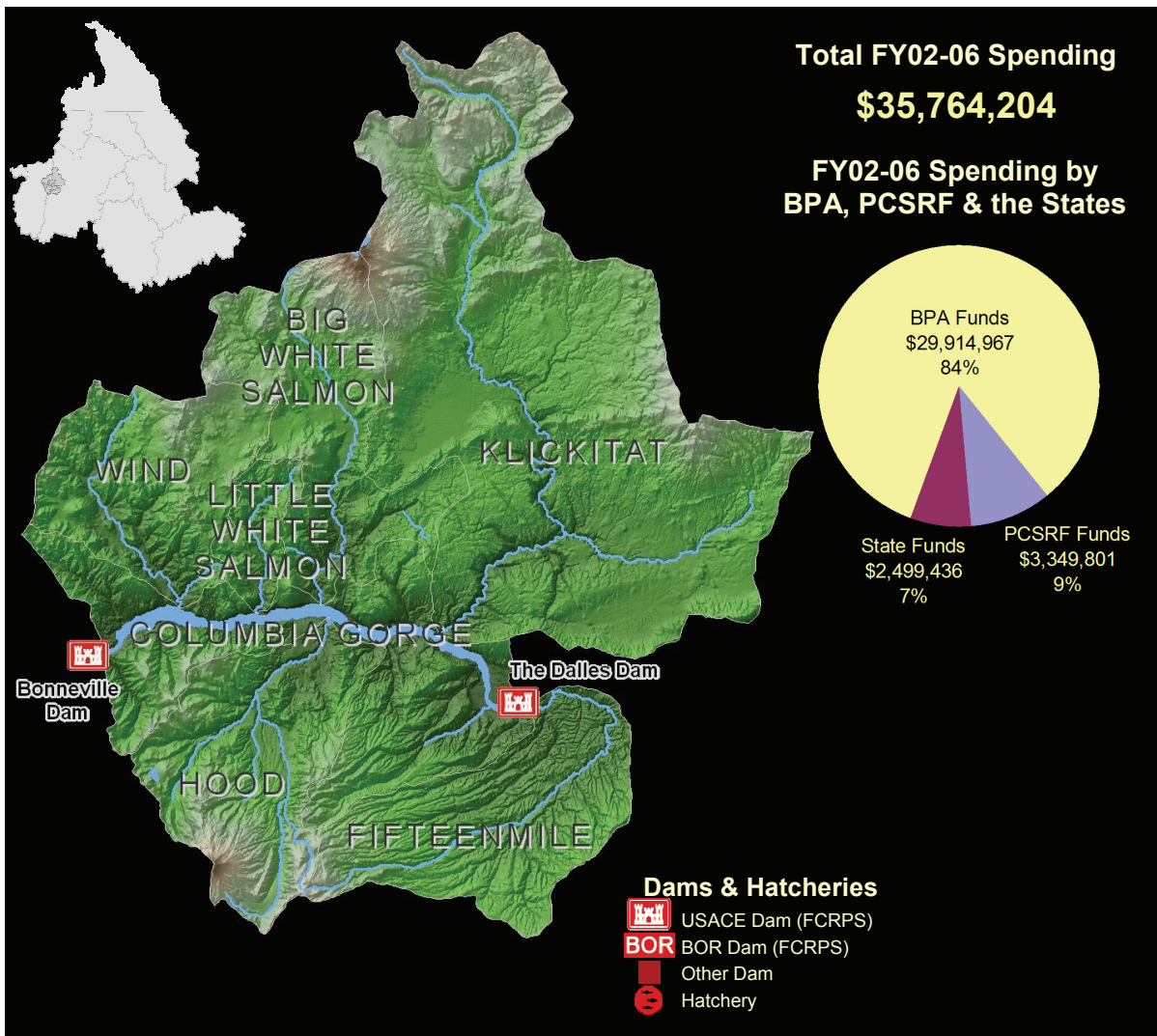
Wildlife Projects by Type



Funding by Project Type



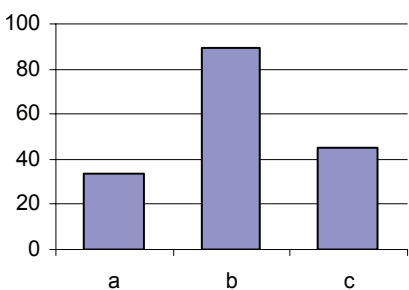
Columbia Gorge



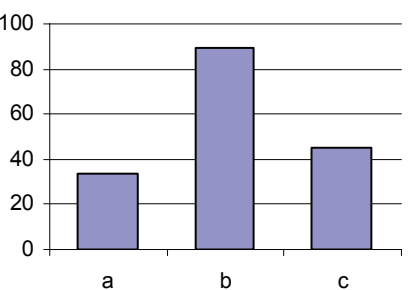
The Columbia Gorge Province is bounded by Bonneville Lock and Dam at river mile 145 and The Dalles Dam at river mile 191 on the Columbia River, and encompasses an area of 3,293 square miles. Subbasins in the Columbia Gorge Province include the Big White Salmon River, Columbia Gorge Mainstem (i.e., Bonneville Reservoir), Hood, Fifteenmile, Klickitat, Little White Salmon, and Wind. Chinook (spring and fall), chum, steelhead (summer and winter), and bull trout populations throughout the province are listed under the federal Endangered Species Act. This province is characterized by a complex geologic structure and vegetation pattern. Fed by glaciers in the Oregon and Washington Cascades, the rivers in the province flow from high elevation coniferous forests and transition through fruit orchards and other irrigated agriculture in the lowlands before entering the Columbia River. Forestry, ranching, agriculture, orchards, and tourism are significant factors in the economy of communities in the province.

Land Ownership	
Federal	27%
Private	56%
Tribal	17%

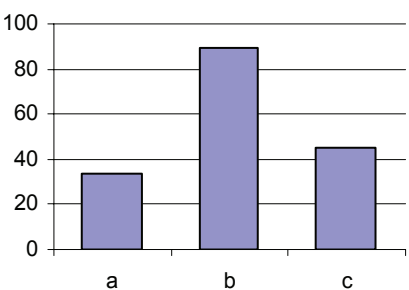
Distribution of PCSRF and State-Matching Funds



Distribution of BPA Funds



Distribution of OWEB Funds



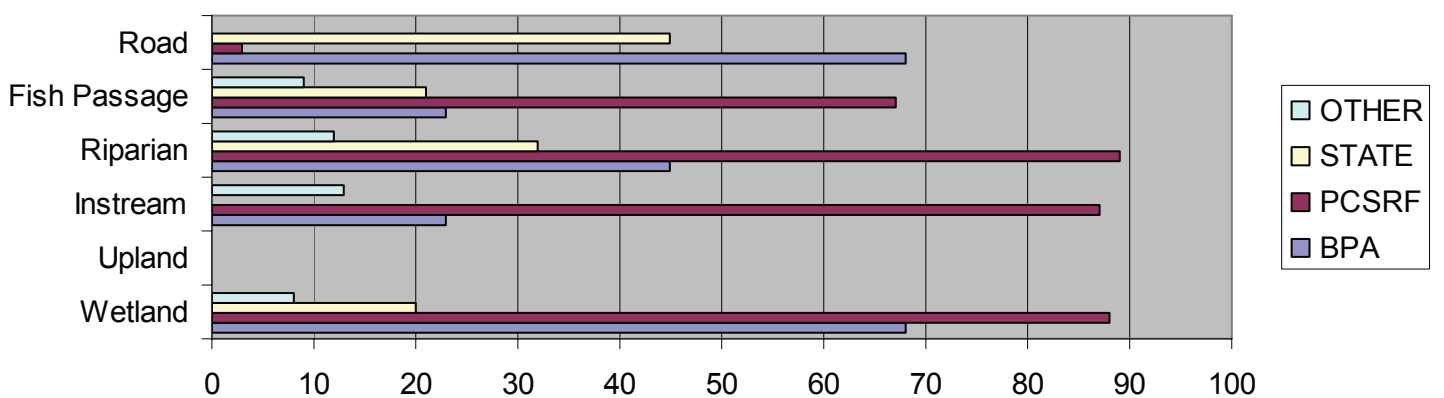
Major Habitat Factors Limiting Recovery in the Columbia Gorge Province

Major Limiting Factors	Big White Salmon	Columbia Gorge	Fifteenmile	Hood	Klickitat	Little White Salmon	Wind
Physical habitat quality/quantity	•	•		•			
Water quality			•	•		•	
Water quantity	•	•					
BPA projects addressing major habitat limiting factors							

Habitat Status in the Columbia River Gorge Province

Project-type	Performance indicator	2000-2008 Average
Instream habitat projects	2,000 stream miles treated	1,850
Wetland habitat projects	8,445 acres created 20,100 acres treated 9,335 acres restored	7,500 16,345 8,250
Estuarine habitat projects	1,045 acres created 3,560 acres treated 2,845 acres restored	900 2,980 1,975
Land acquisition projects	132,00 acres acquired/protected 390 stream bank miles acquired protected	145,000 410
Riparian habitat projects	4,125 stream miles treated 25,600 acres treated	5,010 23,390
Upland habitat projects	410,360 acres treated 45,980 acres restored	345,500 60,790
Fish passage projects	3,845 barriers removed 7,900 stream miles accessed 375 fish screens installed	2,230 6,650 285
Watershed planning and assessment projects		
Research, monitoring, and evaluation projects	60,000 miles of streams monitored 135 assessments completed	58,350 105
Water acquisition projects	3,060 acre –feet of water restored to streams	2,450
Road projects	350 miles corrected	220

2007-2008 Funding for Completed and Reported Restoration by Activity Type

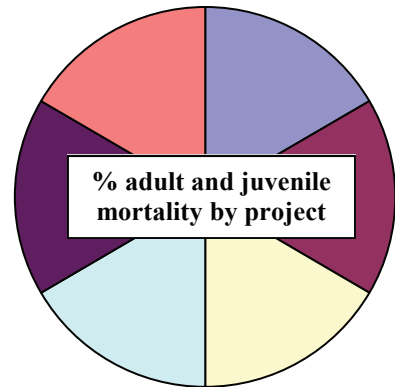


Columbia Gorge

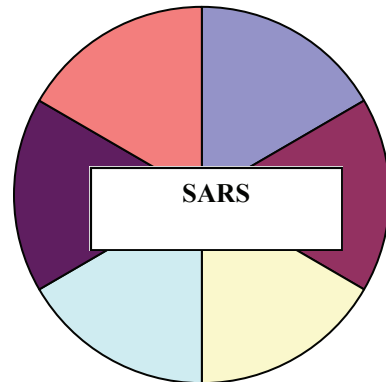
Fish Status

Bull Trout	Threatened
Chinook (Spring)	Threatened
Chinook (Fall)	Threatened
Chum	Threatened
Coastal Cutthroat Trout	Depressed
Coho	Threatened
Pacific Lamprey	Depressed
Rainbow Trout	Unknown
Steelhead (Summer)	Threatened
Steelhead (Winter)	Threatened
White Sturgeon	Depressed

Hydrosystem Performance



System Survival



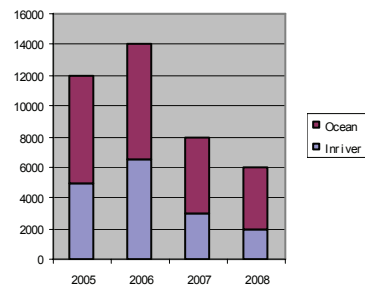
Hatchery Releases and Returns to Hatcheries in the Hood Subbasin

Hatchery	Species	Released	Hatchery Spawners (Target and Non-target)
Carson			
	Spring Chinook		
Klickitat			
	Spring Chinook		
Little White Salmon			
	Spring Chinook		
	Fall Chinook (Upriver)		
	Coho		
PowerDale Dam			
	Spring Chinook		
	Fall Chinook		
	Summer Steelhead		
	Winter Steelhead		
Spring Creek			
	Fall Chinook (Tule)		
Total			

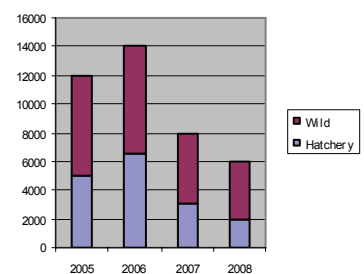
Salmon and Steelhead Harvest

Total Harvest
#####

Location (River/Ocean)



Hatchery vs Wild

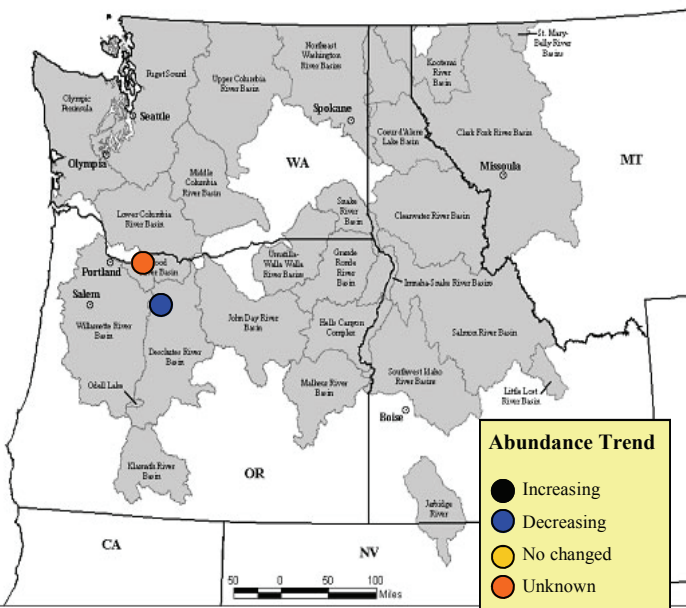


Status and Recovery of ESA-Listed Salmon and Steelhead in the Columbia Gorge Province

Potential information to be included in this section:

- Abundance
 - total spawners and NORs relative to aggregate ESU target
 - MPGs meeting targets
 - Trend: MPGs increasing, stable, decreasing
- Productivity
 - MPGs meeting targets
 - Trend: MPGs increasing, stable, decreasing
 - SARs
- Spatial Structure
 - MPGs meeting targets
 - Trend: MPGs increasing, stable, decreasing
 - % accessible area utilized
- Diversity
 - MPGs meeting targets
 - Trend: MPGs increasing, stable, decreasing

Bull Trout Status in the Columbia Gorge Province



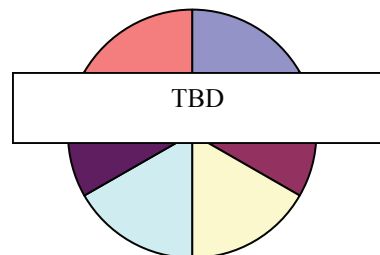
Recovery Unit	Number of Local Populations	Number of Adult Spawners
Hood River		
Lower Columbia River		

**Wildlife Habitat Losses
Hydroelectric Facilities in the Columbia Gorge Province***

Dam	HUs Lost	Goals	HUs Credited	% Mitigated	% of Projects with Long-term Management Funds Agreement
Bonneville (OR)	6,159				
Bonneville (WA)	6,159				
The Dalles (OR)	1,165				
The Dalles (WA)	1,165				

*BPA. 2007. Wildlife Crediting for BPA's Fish and Wildlife Program. Bonneville Power Administration, Portland, OR.

Acres Meeting Objectives

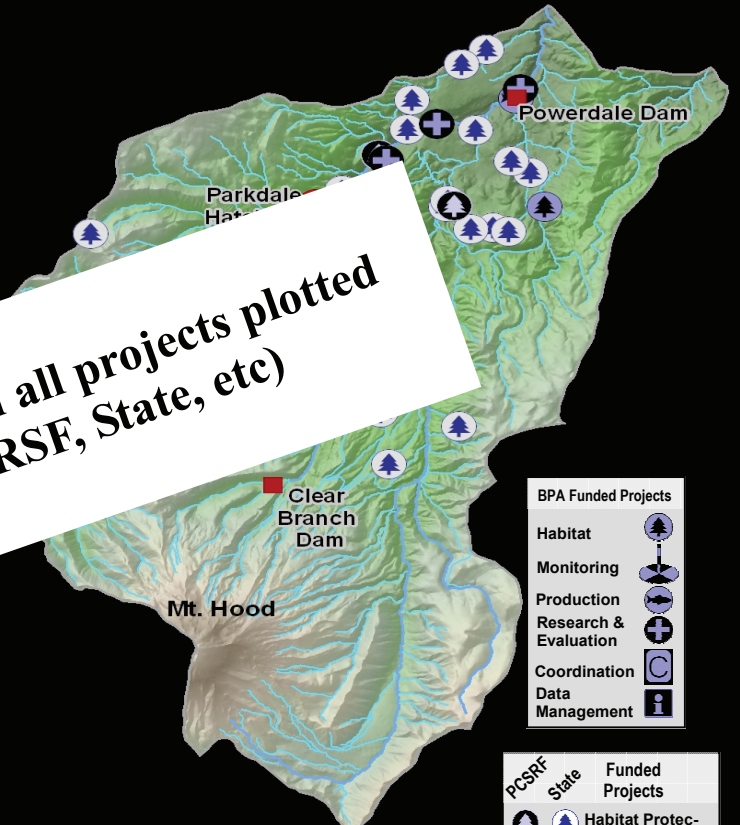


Pie chart represents six subbasins sampled in the Columbia Gorge Province during 2007-2008.

Columbia Gorge

Total FY07-08 Spending
\$35,764,204

Larger map with all projects plotted
(BPA, PCRSE, State, etc)

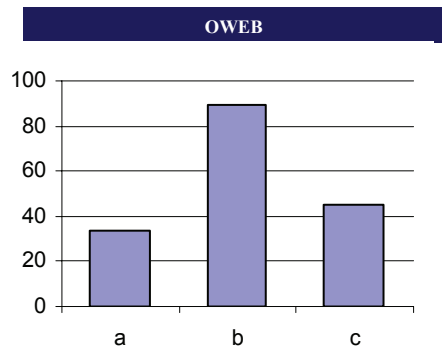
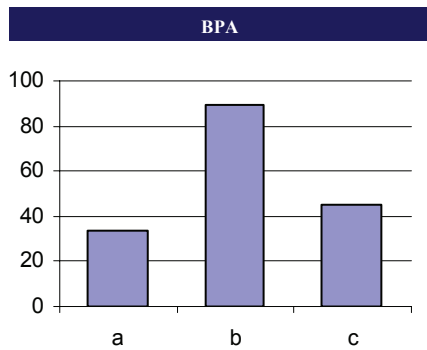
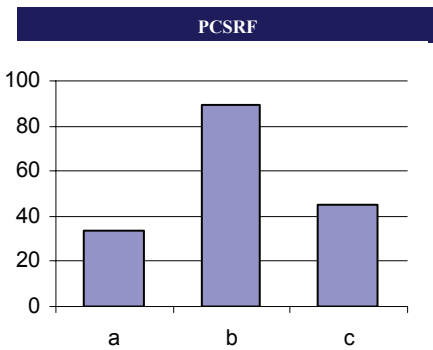


- BPA Funded Projects**
- Habitat
 - Monitoring
 - Production
 - Research & Evaluation
 - Coordination
 - Data
 - Management

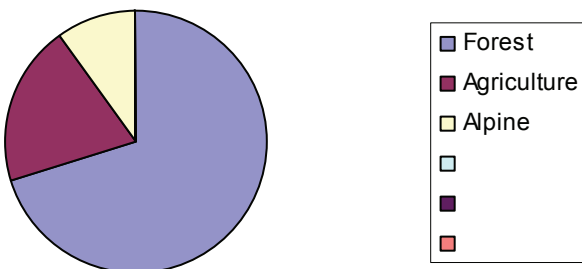
- Dams & Hatcher-**
- USACE Dam (FCRPS)
 - BOR Dam (FCRPS)
 - Other Dam
 - Hatchery

- | PCSRF | State | Funded Projects |
|-------|-------|-------------------------|
| | | Habitat Protection |
| | | RM&E |
| | | Enhancement |
| | | Administration |
| | | Public Outreach |
| | | Watershed/Subbasin Plan |

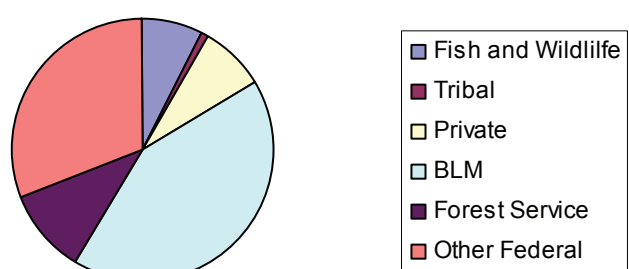
2000-2008 Funding Sources



Land Cover



Land Ownership



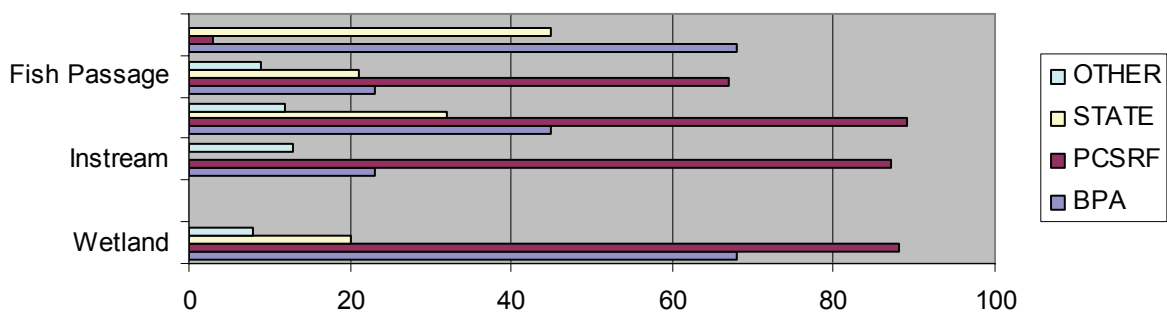
Subbasin: Hood



Major Habitat Factors Limiting Recovery in the Hood Subbasin							
Major Limiting Factors	Summer Steelhead	Winter Steelhead	Spring Chinook	Fall Chinook	Bull Trout	Coastal Cut-throat Trout	Pacific Lamprey
Physical habitat quality/quantity	•	•		•			
Water quality			•	•		•	
Water quantity	•	•					
BPA projects addressing major habitat limiting factors							

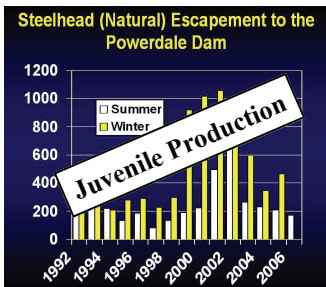
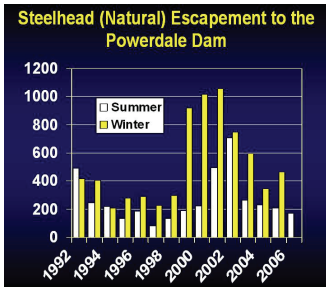
2007-2008 BPA –funded Habitat Projects in the Hood Subbasin		
Project-type	Performance indicator	2000-2008 Average
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Water acquisition projects	3,060 acre –feet of water restored to streams	2,450
Road projects	350 miles corrected	220

2007-2008 Funding for Completed and Reported Restoration by Activity Type



Columbia Gorge

Steelhead



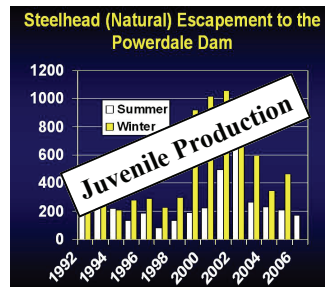
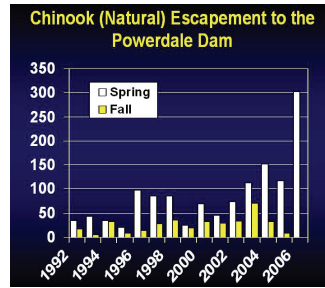
Summer

Federal Designation: Threatened
ESU: Lower Columbia
Biological Objective: 600 adults¹
Status: 168 natural adults (2006)²
Trend: (Increasing/Stable/
 Decreasing/Unknown)
Wild Juvenile Production:
% MSA Occupied:
Lambda:

Winter

Federal Designation: Threatened
ESU: Lower Columbia
Biological Objective: 1,100 adults¹
Status: 597 adults (2005)²
Trend: (Increasing/Stable/
 Decreasing/Unknown)
Wild Juvenile Production:
% MSA Occupied:
Lambda:

Chinook



Spring

Federal Designation: Threatened
ESU: Lower Columbia
Biological Objectives: 125 natural adults¹
Status: 302 adults and jacks (2006)²
Trend: (Increasing/Stable/
 Decreasing/Unknown)
Wild Juvenile Production:
% MSA Occupied:
Lambda:

Fall

Federal Designation: Threatened
ESU: Lower Columbia
Biological Objective: 1,400 natural adults (TRT)
Status: 8 adults and jacks (2005)²
Trend: (Increasing/Stable/
 Decreasing/Unknown)
Wild Juvenile Production:
% MSA Occupied:
Lambda:

Pacific Lamprey



Federal Designation: Species of Concern
Biological Objective: None
Status: Unknown

Hatchery Releases and Returns to Hatcheries in the Hood Subbasin

Hatchery	Species	Released	Returns to Hatchery	Harvest	Harvest Fraction	PNI
	Spring Chinook					
	Summer Steelhead					
	Winter Steelhead					
	Fall Chinook					
Total						

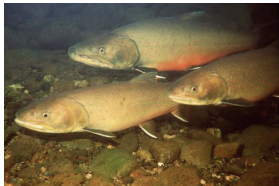
¹ Coccoli, H. and 9 coauthors. 2004. Hood River Subbasin Plan including Lower Columbia Gorge Tributaries. A Report Prepared for the Northwest Power and Conservation Council. Portland, Oregon.

² Olsen, W. A. 2007. Hood River and Pelton Ladder Evaluation Studies: Annual Report 2006. Oregon Department of Fish and Wildlife. Salem, Oregon. (via Stream-Net)

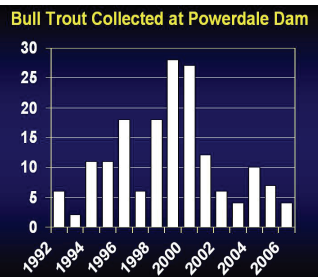
Subbasin: Hood



Bull Trout



Federal Designation: Threatened
Core Population: Hood (Within Hood River Recovery Unit)
Biological Objective: ≥ 500 adults¹
Status: 4 adults passed Powerdale Dam (2006)²

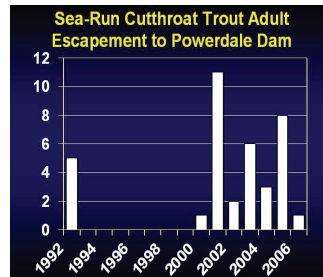


Coastal Cutthroat Trout



Resident

Federal Designation: Species of Concern
Biological Objective: None
Status: Unknown



Sea-Run

Federal Designation: Species of Concern
Biological Objective: None
Status: 1 adult passed Powerdale Dam (2006)²

Wildlife Priority Focal Habitat

- Big game winter range
- Riparian habitat
- Oak-pine woodland

ADDITIONAL WILDLIFE INFORMATION

TBD

BPA-Funded Wildlife Projects in the Hood Subbasin

No BPA-funded wildlife projects exist in this subbasin

¹ Coccoli, H. and 9 coauthors. 2004. Hood River Subbasin Plan including Lower Columbia Gorge Tributaries. A Report Prepared for the Northwest Power and Conservation Council. Portland, Oregon.

² Olsen, W. A. 2007. Hood River and Pelton Ladder Evaluation Studies: Annual Report 2006. Oregon Department of Fish and Wildlife. Salem, Oregon. (via Stream-Net)