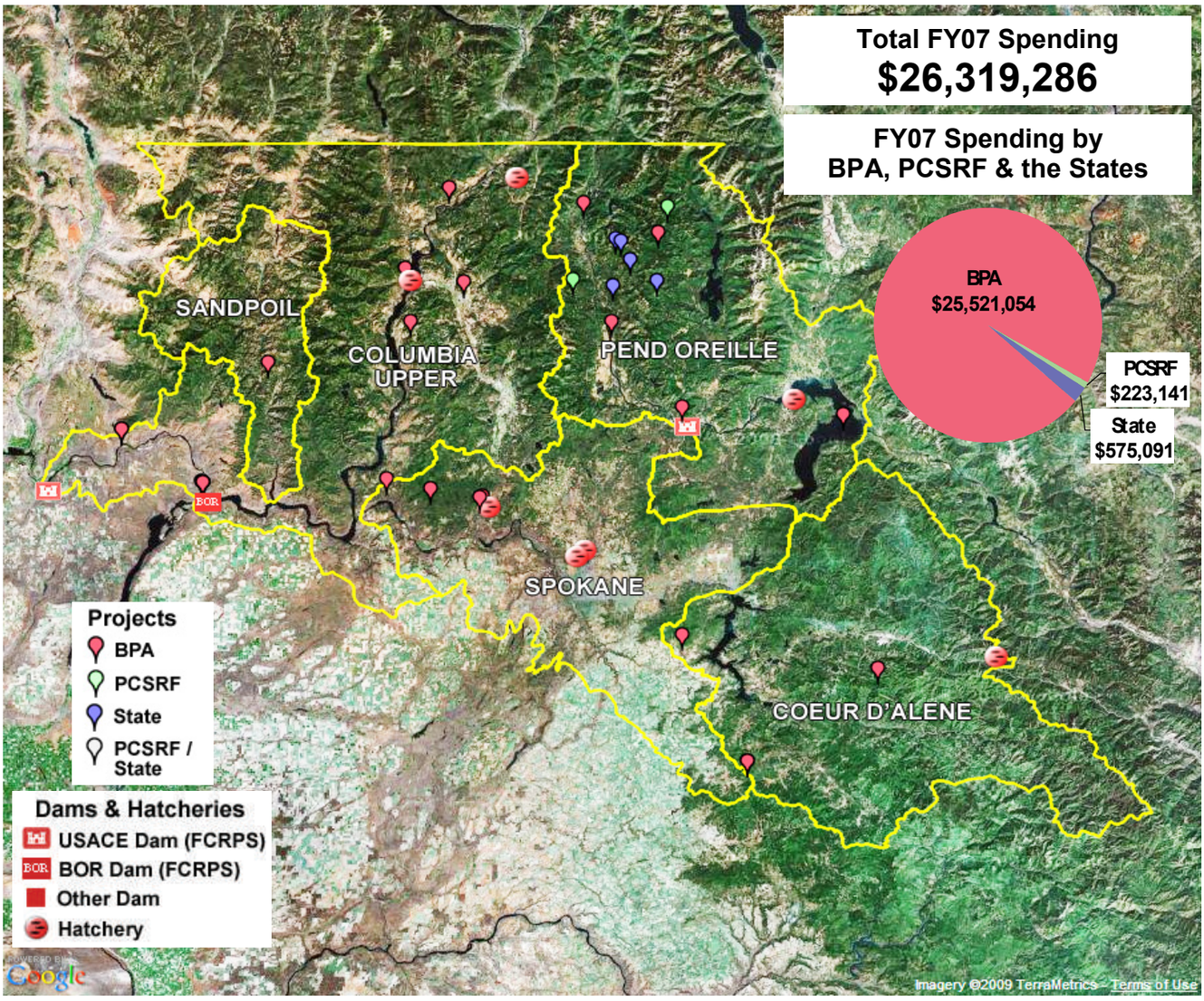
Intermountain



Land Ownership
Federal……....33%
Private…….55%
Tribal……...12%

The Intermountain Province, located in eastern Washington and northwestern Idaho, encompasses an area of 15,617 square miles. Subbasins in the Intermountain Province include Coeur d'Alene, Pend Oreille, Sanpoil, Spokane, and Upper Columbia. Bull trout populations throughout the province are listed under the federal Endangered Species Act. Resources in this province have been impacted by extensive anthropogenic activities that have severely degraded riparian and in-stream habitat. In addition, natural hydrographs throughout the province have been severely altered due to hydro-operations, diversions, and forestry practices. Prior to hydro-development, the Upper Columbia River supported a diverse fish assemblage that included 11 anadromous fish stocks. With the completion of Grand Coulee Dam, all anadromous fish stocks were extirpated and the resident fish assemblage was significantly reduced.

BPA FY 2008 Habitat Project Accomplishments in the Intermountain Province[1]			
Habitat Zone	**Project-type**	**Planned Value**	**FY 2008 Accomplishment (Actual Value)**
Unspecified	Develop terrestrial habitat features	8 features	8 features developed
Riparian-Upland	Plant/remove vegetation, conduct controlled burn, create/restore/ enhance wetland	356.1 acres	396.1 acres treated
Riparian	Plant vegetation	3.7 miles	3.7 miles vegetation improved

Habitat Improvement Project—Implement Fisheries Enhancement Opportunities On the Coeur d'Alene Reservation

During the last several years, the Coeur d'Alene Tribe has implemented numerous projects to improve riparian and floodplain habitat throughout the Tribe's reservation. Restoration efforts are underway in Benewah Creek to restore up to 2,621 m of stable channel at the previous elevation of the channel in the floodplain. Activities have also been initiated to treat up to 1,340 meters of streambank and 2.32 hectares of associated floodplain potentially disturbed or created during the stream channel construction. From 2006 to 2007, 26,387 herbaceous plugs, 7,450 woody trees and shrubs, and 4,000 live willow poles were planted along 1,340 m of streambank and 2.32 hectares of associated floodplain.

The Benewah valley has a history of anthropogenic disturbance by logging and agricultural activities. These activities have resulted in low stream canopy closure, little overhanging vegetation, and low volume of woody debris. From 2002 to 2006, approximately 46.3 hectares adjacent to stream channels were planted with 59,531 trees and shrubs. These efforts led to 3,689 liner meters of streambank being replanted.

Intermountain

Focal Species in the Intermountain Province[a]

Focal Species	Coeur d'Alene	Columbia Upper	Pend Oreille	San Poil	Spokane
Bull Trout					
Burbot					
Chinook		Extirpated		Extirpated	Extirpated
Kokanee					
Largemouth Bass					
Mountain Whitefish					
Pacific Lamprey		Extirpated			Extirpated
Rainbow/ Redband Trout					
Westslope Cutthroat Trout					
White Sturgeon					

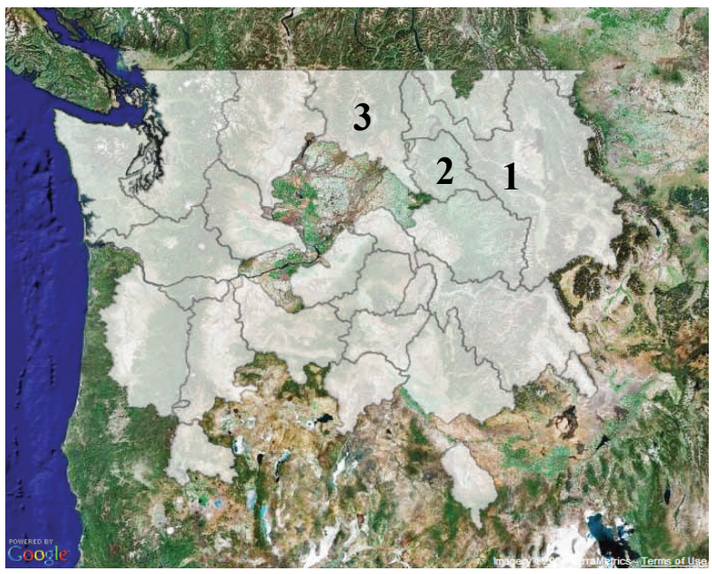
Not a focal species | Not listed | Species of Concern | Threatened

[a]Focal species were identified by subbasin planners during the Northwest Power and Conservation Council's subbasin planning process. Since the completion of subbasin planning, the list of focal species has been amended through the Fish and Wildlife Program Amendment process. This list represents the most current suite of focal species.
[b] USFWS Status
[c] ESA Status

2007 Hatchery Releases in the Intermountain Province

Species	Release Goal/ Released
TOTAL	

Bull Trout Status in the Intermountain Province



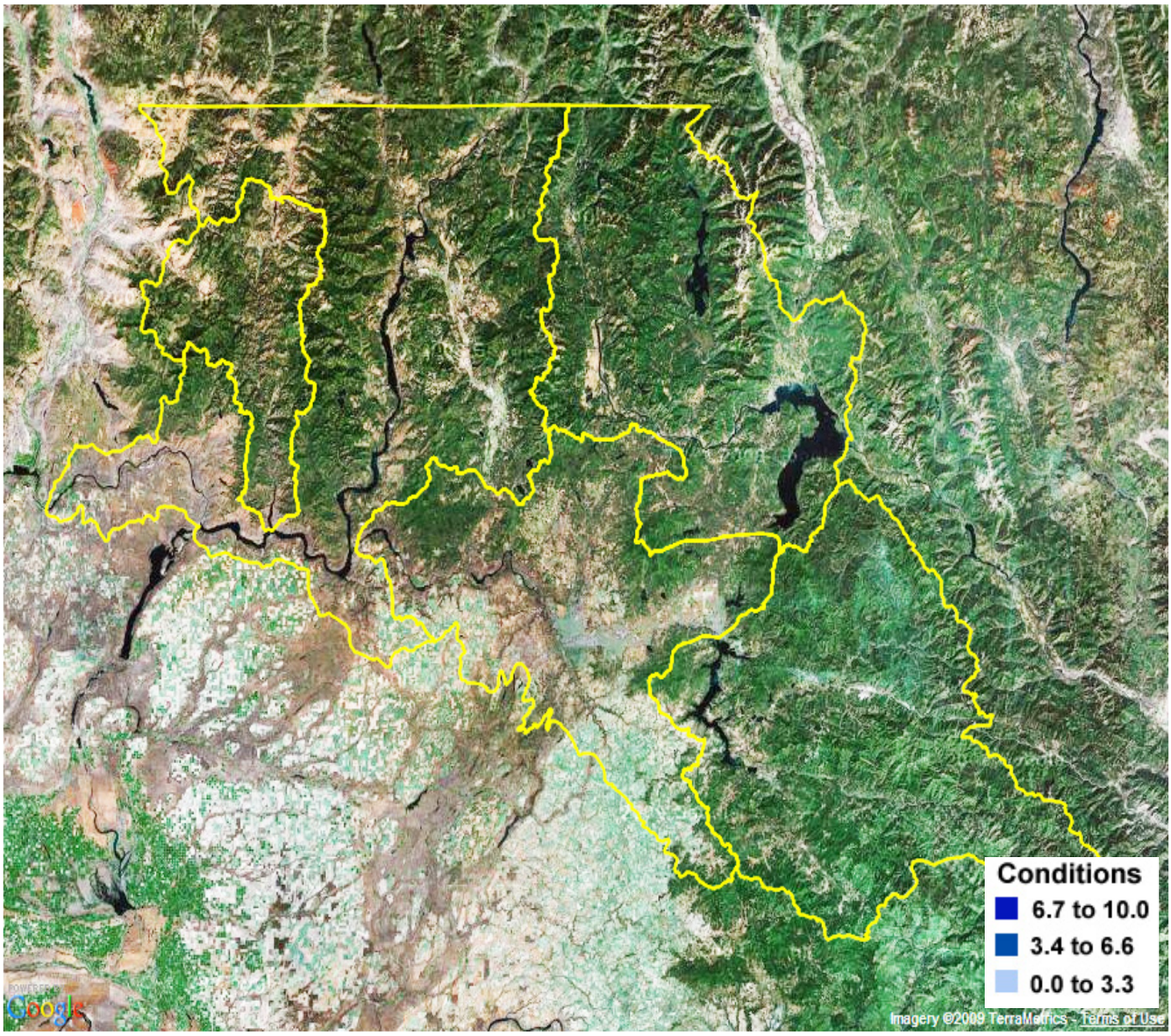
Recovery Unit	Number of cores	Abundance	Trend	Threat	Risk
Clark Fork River (1)	2	2,550-10,250	Rapidly declining (1) Stable (1)	Substantial, imminent (1) Moderate, non-imminent (1)	High (1) Potential (1)
Coeur d'Alene River (2)	1	50-250	Stable	Substantial, imminent	High
Northeast Washington (3)	1	1-50	Unknown	Substantial, imminent	High

Wildlife Habitat Losses by Hydroelectric Facility in the Intermountain Province

Dam	HU Lost	HU Credited in 2008	HU Credited (Gained)
Albeni Falls	28,658		171
Chief Joseph	8,833		1,440
Grand Coulee	111,785		0

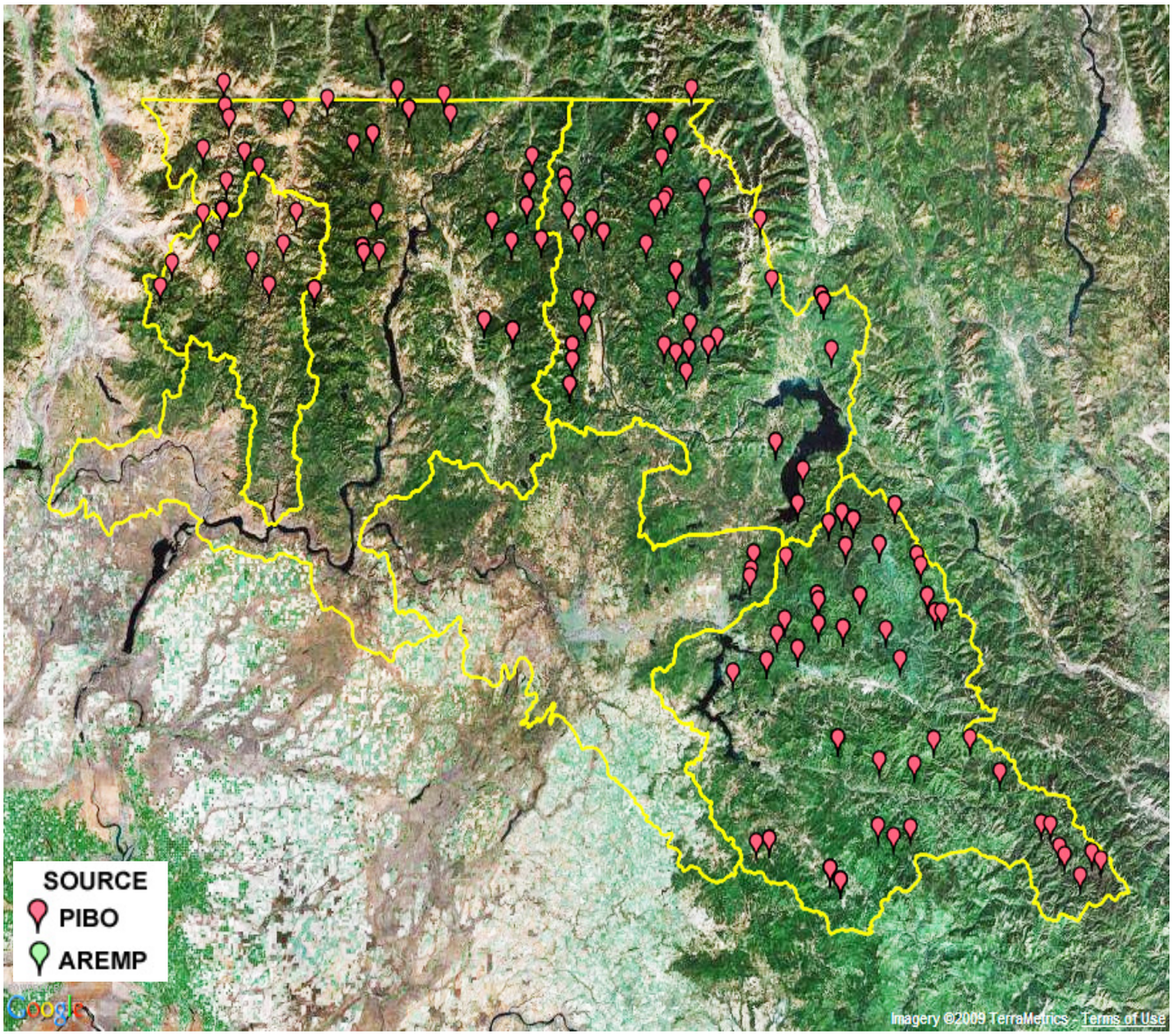
Intermountain

Watershed Conditions for National Forest and Bureau of Land Management Lands in the Intermountain Province



Watershed condition is based upon work completed by the USDA Forest Service (FS) and USDI Bureau of Land Management (BLM) Aquatic and Riparian Effectiveness Monitoring Program (AREMP). AREMP personnel evaluate the status and trend of watershed condition on FS, BLM, and National Park Service administered lands within the range of the Northern Spotted Owl. Watershed condition scores are determined for all watersheds that contain a minimum of 25 percent federal ownership. AREMP applies a decision support model to evaluate the premise that watersheds are in good condition. Watersheds are judged to be in good condition where the physical processes, such as wood and sediment delivery, and habitat attributes are adequate to maintain or improve the diversity and abundance of native or desired non-native aquatic species.[7] A score of 10 indicates full support for the premise that a watershed is in good condition and a score of 0 indicates no support for the premise. A fifteen-year assessment of watersheds is being done in 2009, with an expected publication date of early 2010.

Stream Inventory Sites on National Forest and Bureau of Land Management Lands in the Intermountain Province



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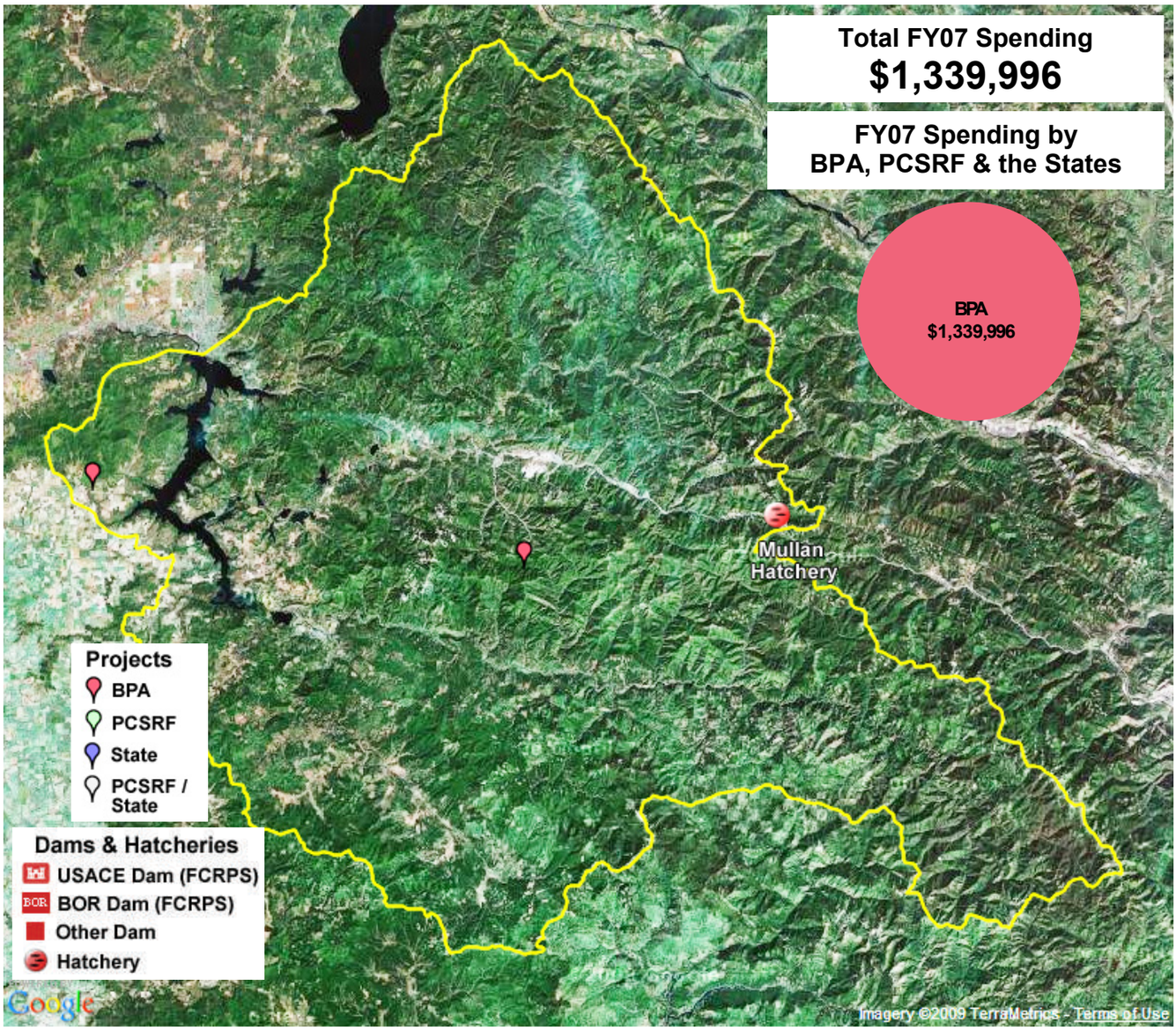
Intermountain



In the Coeur d'Alene Subbasin, bull trout, westslope cutthroat trout, and kokanee have been identified as focal species. Bull trout are listed as threatened under the federal Endangered Species Act. The bull trout core present in the subbasin is part of the Coeur d'Alene River Recovery Unit. Draft Recovery criteria for bull trout vary among recovery units and core areas. Westslope cutthroat trout have been petitioned for listing on multiple occasions. Due to low population levels, fishing is prohibited for westslope cutthroat trout in Coeur d'Alene Tribal waters.

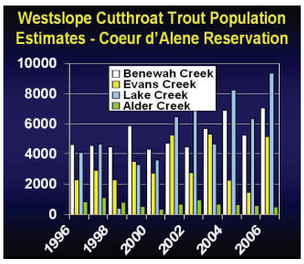
Subbasin: Coeur d'Alene

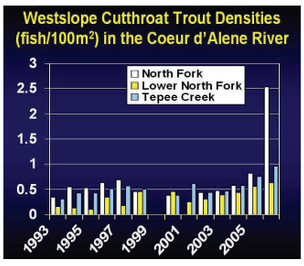
Key Factors Limiting Coeur d'Alene Subbasin Focal Species[1,2,3]				
Factors for Decline/Limiting Factors/Threats		**Species/Race, and Life-Stage Most Affected**		
		Kokanee	**Bull Trout**	**Westslope Cutthroat Trout**
Habitat	Channel Structure and Complexity		Juveniles, adults	Juvenile, adults
	Riparian Areas and LWD Recruitment		Juveniles, adults	Juvenile, adults
	Stream Flow		All	All
	Water Quality		All	All
	Fish Passage		Juveniles, adults	Juveniles, adults
Hatchery	Hatchery Fish Interbreeding With Wild Fish			Adults
Harvest	Mortality from Targeted Fishery		Adults	
	Illegal Harvest		Adults	
Introduced Species	Competition with Introduced Species		Juveniles, adults	Juveniles, adults

BPA FY 2008 Habitat Project Accomplishments in the Coeur d'Alene Subbasin			
Habitat Zone	**Project-type**	**Planned Value**	**FY 2008 Accomplishment (Actual Value)**
Unspecified	Develop terrestrial habitat features	10 features	0 features developed
	Land purchase	650 habitat units	650 habitat units protected
Wetland	Realign, connect, and/or create channel	12.5 acres	12.5 acres improved
Riparian-Upland	Plant/remove vegetation, conduct controlled burn, create/restore/ enhance wetland	210.4 acres	160.4 acres improved
	Land purchase	592 acres	592 acres protected
Riparian	Plant vegetation	0.98 miles	0.98 miles improved
Instream	Realign, connect, and/or create channel	0.2 miles	0.2 miles of stream added
	Increase instream complexity	0.29 miles	0.29 miles stream complexity improved
	Increase instream habitat complexity	70 structures	139 structures installed

Intermountain

Westslope Cutthroat Trout





ESA Listing Status: Species of Concern
Biological Objective: Catch rate of 1.0 fish per hour in the St. Joe, Coeur d'Alene, and St. Maries rivers and an annual catch of over 1,000 fish in Coeur d'Alene Lake[1]
Status:
Coeur d'Alene Reservation (population estimates and densities)

Benewah Creek
7,037±1,065 fish (2006)[5]
8.8±4.3 fish/100m^2 (2004)[6]

Evans Creek
5,161±546 fish (2006)[5]
6.6±0.9 fish/100m^2 (2004)[6]

Lake Creek
9,318±979 fish (2006)[5]
Adfluvial=253 spawners and 4,416±793 juveniles (2006)[5]
12.4±3.6 fish/100m^2 (2004)[6]

Alder Creek
456±57 fish (2006)[5]
0.8±0.3 fish/100m^2 (2004)[6]

Coeur d'Alene River Drainage
North Fork Coeur d'Alene River
Average density (fish/100m^2) = 2.53 (2006)[2]

Lower North Fork Coeur d'Alene River
Average density (fish/100m^2) = 0.63 (2006)[2]

Tepee Creek
Average density (fish/100m^2) = 0.96 (2006)[2]

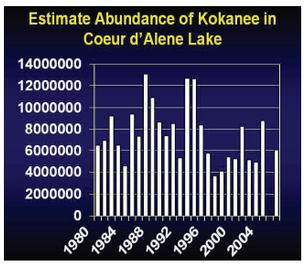
St. Joe River Drainage
Caldera to North Fork St. Joe
Average density (fish/100m^2) = 0.19 (2006)[2]

North Fork St. Joe to Prospector Creek
Average density (fish/100m^2) = 0.84 (2006)[2]

Prospector Creek to Red Ives Creek
Average density (fish/100m^2) = 2.09 (2006)[2]

Red Ives Creek to Ruby Creek
Average density (fish/100m^2) = 2.39 (2006)[2]

Kokanee

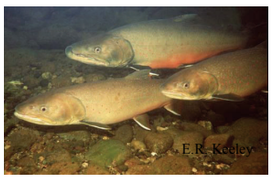


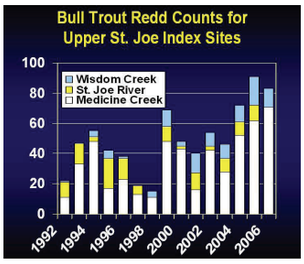
ESA Listing Status: None
Biological Objectives: Annual catch rate greater than 500,000[4]
Status: Estimated abundance = 6,083,300 fish (2006)[3]

2007 Hatchery Releases and Returns to Hatcheries in the Coeur d'Alene Subbasin			
Hatchery/Acclimation Pond	**Species**	**Release Goal/Released**	**Return Goal/Actual Return**
Mullan			
Total			

Subbasin: Coeur d'Alene

Bull Trout





ESA Listing Status: Threatened
Core Population: Coeur d'Alene Lake (Within the Coeur d'Alene River Recovery Unit)
Draft Recovery Plan Criteria: : St. Joe River— 8 local populations contributing to a total of 800 annual adult spawners (5 local populations with an average of 500 annual adult spawners will occur above and/or in Red Ives Creek and 3 local populations with an average of 300 annual adult spawners will occur from Ives Creek downstream to Big Creek) Coeur d'Alene River (North Fork Coeur d'Alene drainage) - at least 3 local populations contributing to an average of 300 annual adult spawners)
Total of 1,100 adult spawners per year between the two subunits[1]
Status: Upper St. Joe Index Streams
Medicine Creek
71 redds (2006)[2]
St. Joe River (Heller to St. Joe Lake) 0 redds (2006)[2]
Wisdom Creek
12 redds (2006)[2]

Coeur d'Alene River—no spawning bull trout populations[3]

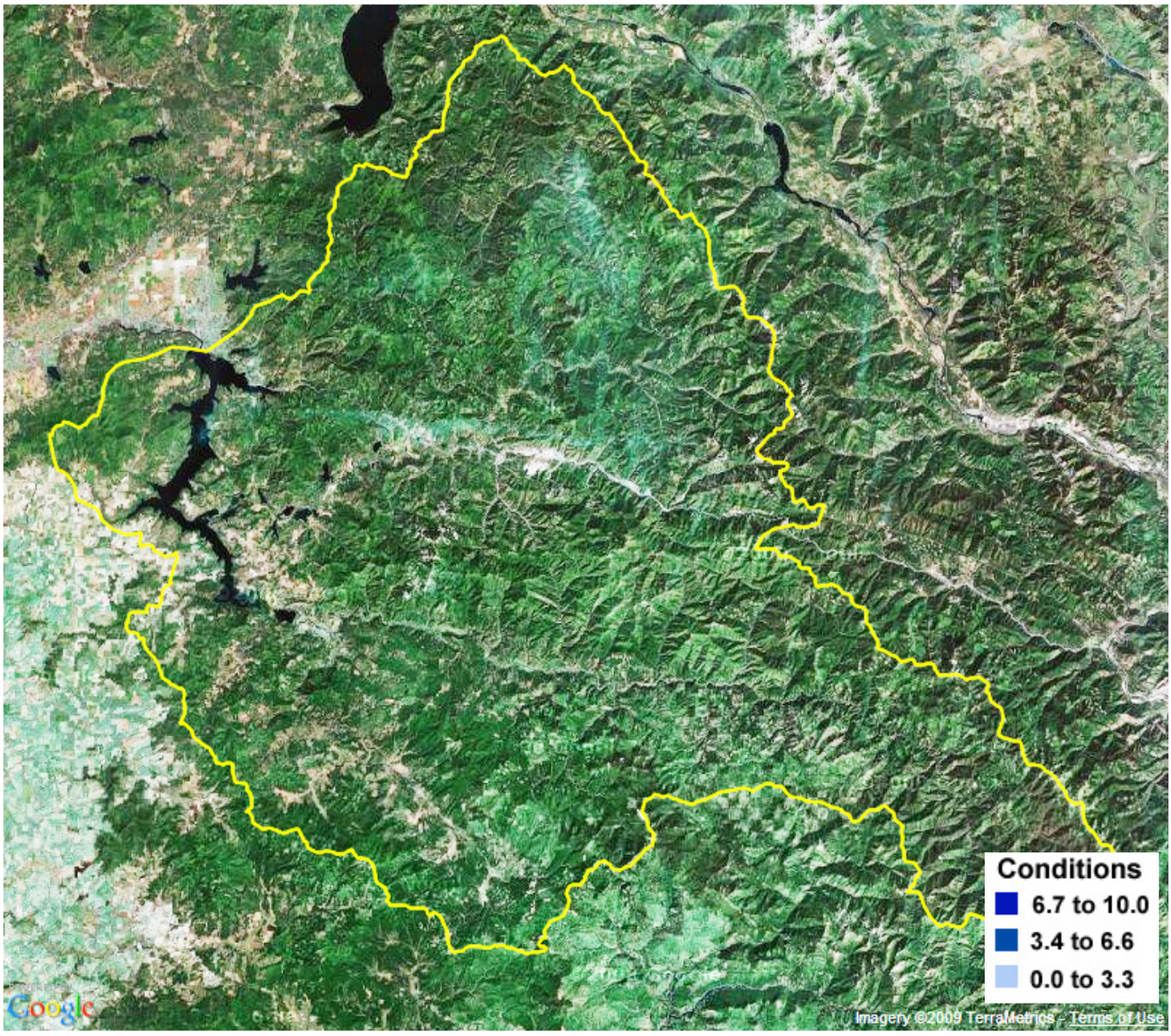
Abundance, Trend, Threat, and Risk Ranks (Coeur d'Alene Lake Core):
Abundance = 50-250
Short-term Trend = Stable
Threat = Substantial, imminent
Risk = High

BPA-Funded Wildlife Projects in the Coeur d'Alene Subbasin

Project	Sponsor	Acres	HU	Habitat Type
Lake Creek Land Acquisitions and Enhancement	Coeur d'Alene Tribe	NA	NA	NA
Hangman Creek Watershed	Coeur d'Alene Tribe	NA	NA	NA

[1] United States Fish and Wildlife Service. 2003. Chapter 15, Coeur d'Alene River Recovery Unit 14, Idaho. *In*: U.S. Fish and Wildlife Service. Bull Trout (*Salvelinus confluentus*) Recovery Plan. Portland, Oregon.
[2] Dupont, J. Idaho Department of Fish and Game. Personal Communication.
[3] Horner, N. Idaho Department of Fish and Game. Personal Communication.
[4] Intermountain Province Oversight Committee and Intermountain Province Subbasin Work Teams. 2004. Intermountain Province Subbasin Plan. A Report Prepared for the Northwest Power and Conservation Council. Portland, Oregon.
[5] Chess, D. Coeur d'Alene Tribe. Personal Communication.
[6] Chess, D., A. Vitale, S. Hallock, and M. Stanger. 2006. Implementation of Fisheries Enhancement Opportunities on the Coeur d'Alene Reservation: Coeur d'Alene Tribe Fish, Water, and Wildlife Program, Annual Report, Project No. 199004400, 95 electronic pages, (BPA Report DOE/BP-00010885-7).

Watershed Conditions for National Forest and Bureau of Land Management Lands in the Coeur d'Alene Subbasin



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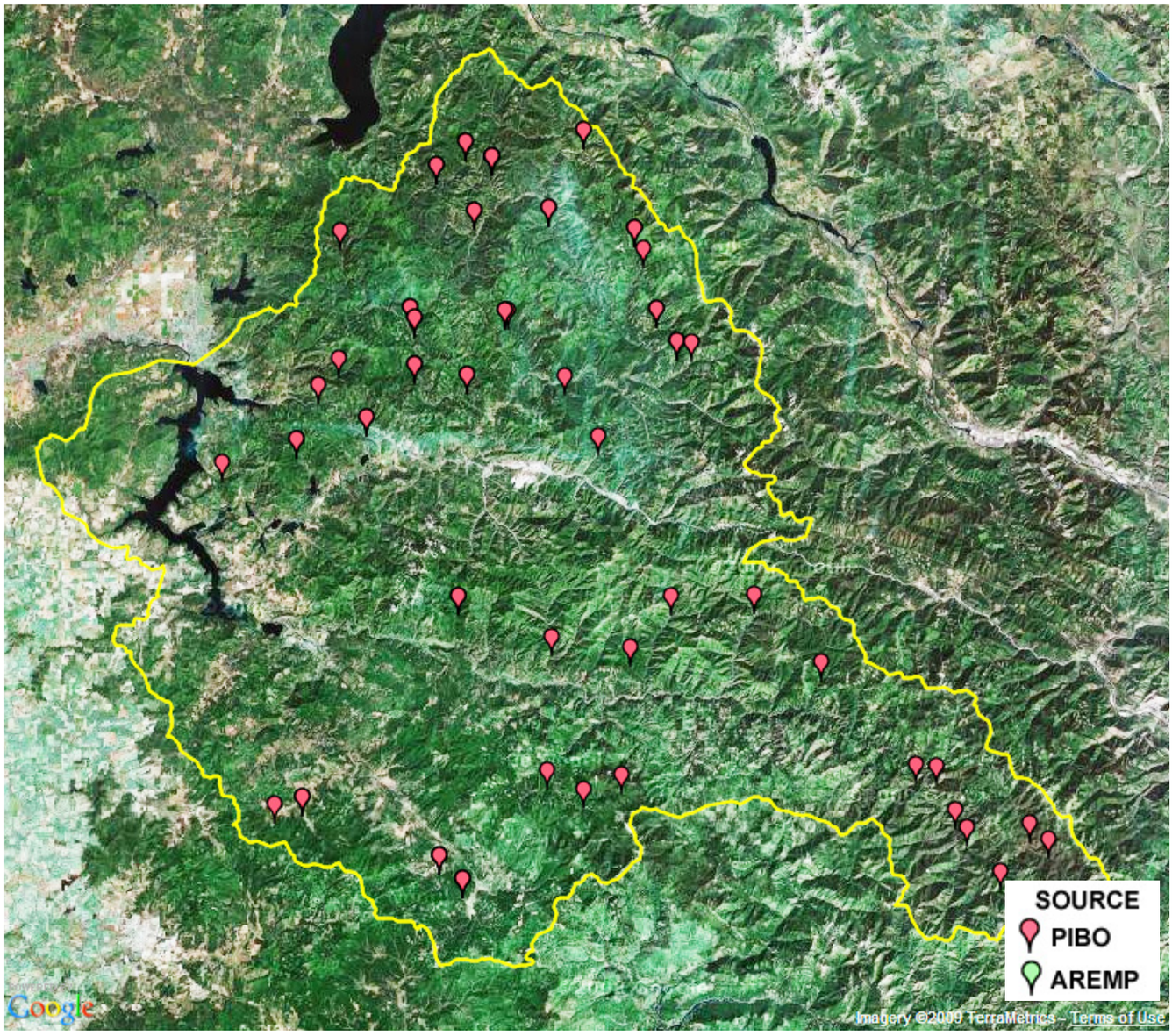
Subbasin: Coeur d'Alene

Stream Inventory Sites on National Forest and Bureau of Land Management Lands in the Coeur d'Alene Subbasin



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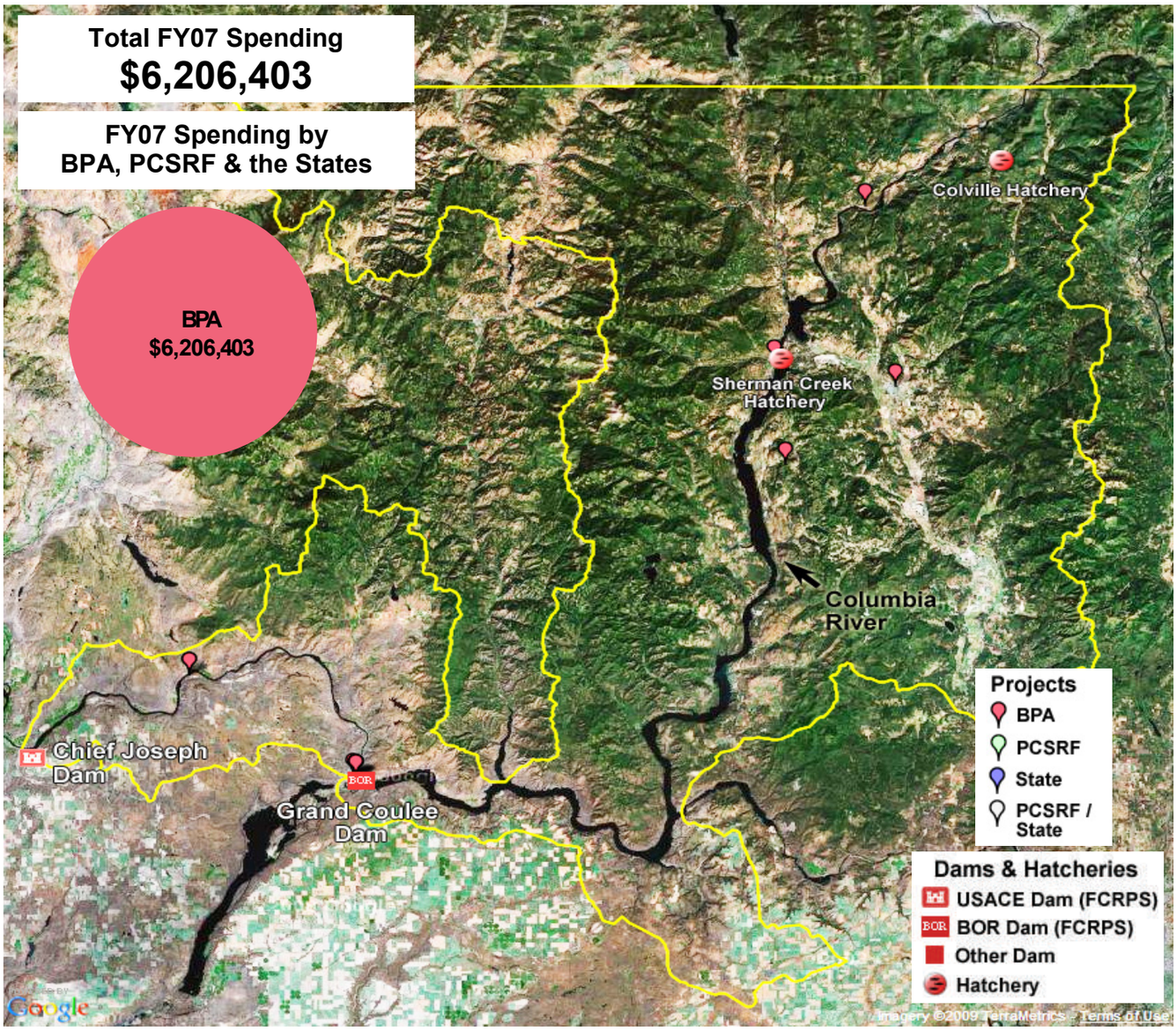
Intermountain



In the Columbia Upper Subbasin, kokanee, white sturgeon, redband trout, burbot, Chinook salmonm and Pacific lamprey have been identified as focal species. Prior to the completion of Grand Coulee and Chief Joseph dams, the Chinook salmon, sockeye, and pacific lamprey historically spawned throughout the subbasin. With the completion of Chief Joseph and Grand Coulee, anadromous fish were blocked from returning to their natal grounds. The completion of these facilities have also negatively affected resident fish such as white sturgeon, kokanee, and redband trout. Annual operations of the hydrosystem and the presence of non-native fish limit the productivity of native fish populations.

Subbasin: Columbia Upper

Key Factors Limiting Columbia Upper Focal Species[1,2,3]					
Factors for Decline/Limiting Factors/Threats		**Species/Race, and Life-Stage Most Affected**			
		Kokanee	**White Sturgeon**	**Redband Trout**	**Burbot**
Habitat	Channel Structure and Complexity	Juveniles, adults		Juveniles, adults	
	Riparian Areas and LWD Recruitment			Juveniles, adults	
	Stream Flow	Juveniles, adults		All	
	Water Quality	All		All	
	Fish Passage	Juveniles, adults		Juveniles, adults	
Hydro	Mainstem Columbia River Hydropower Operations –Related Adverse Effects	Juveniles, adults		Juveniles, adults	
	Passage/Entrainment	Juveniles, adults		Juveniles, adults	
Hatchery	Hatchery Fish Interbreeding With Wild Fish			Adults	
Introduced Species	Competition with Introduced Species			Adults	

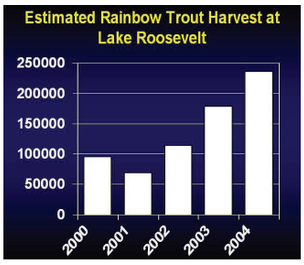
BPA FY 2008 Habitat Project Accomplishments in the Columbia Upper Subbasin
There are no BPA-funded habitat improvement efforts in this subbasin.

Intermountain

Chinook

ESA Listing Status: None
ESU: None
Biological Objective: None
Status: Extirpated

Rainbow/Redband Trout



ESA Listing Status: Species of Concern (Redband)
Biological Objectives: None
Status: Relative abundance (RA) and Catch per-unit-effort (CPUE, fish/hour)
Lake Roosevelt (upper)
RA = 1.71 (2006)[1]
CPUE= 0.022 (2006)
Lake Roosevelt (lower)
RA = 3.12 (2006)
CPUE = 0.018 (2006)
Lake Roosevelt (Sanpoil)
RA = 0.035 (2006)
CPUE = 4.30 (2006)
Estimated Harvest = 60,459(2005)[2]

White Sturgeon

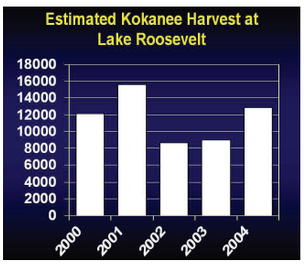
ESA Listing Status: None
Biological Objectives: None
Status: Relative abundance (RA) and Catch per-unit-effort (CPUE, fish/hour)
Lake Roosevelt (upper)
RA = 0.14 (2006)
CPUE= 0.002 (2006)

Pacific Lamprey

Federal Designation: None
Biological Objectives: None
Status: Extirpated

Kokanee

ESA Listing Status: None
Biological Objective: Harvest goal of 300,000
Status:
Estimated harvest = 12,854 (2004)[2]



Burbot

ESA Listing Status: None
Biological Objectives: None
Status: Relative abundance (RA) and Catch per-unit-effort (CPUE, fish/hour)
Lake Roosevelt (upper)
RA = 3.20 (2006)
CPUE= 0.04 (2006)
Lake Roosevelt (middle)
RA = 17.65 (2006)
CPUE = 0.133 (2006)
Lake Roosevelt (Spokane)
RA = 2.46 (2006)
CPUE = 0.019 (2006)
Lake Roosevelt (lower)
RA = 6.24 (2006)
CPUE = 0.038 (2006)
Lake Roosevelt (Sanpoil)
RA = 2.15 (2006)
CPUE = 0.018 (2006)

Subbasin: Columbia Upper

[1]CPUE and RA data

http://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=P107017

Pavlik-Gunkel, D. B. Scofield, and C. Lee. 2008. Lake Roosevelt Fisheries Evaluation Program Annual Report January 2006—December 2006, Project Number 199404300, 155 electronic pages.

2007 Hatchery Releases and Returns to Hatcheries in the Columbia Upper Subbasin

Hatchery/Acclimation Pond	Species	Release Goal/Released
Ford		
Sherman Creek		
Spokane Tribal		
Spokane State		
Lake Roosevelt Net Pen		
Total		

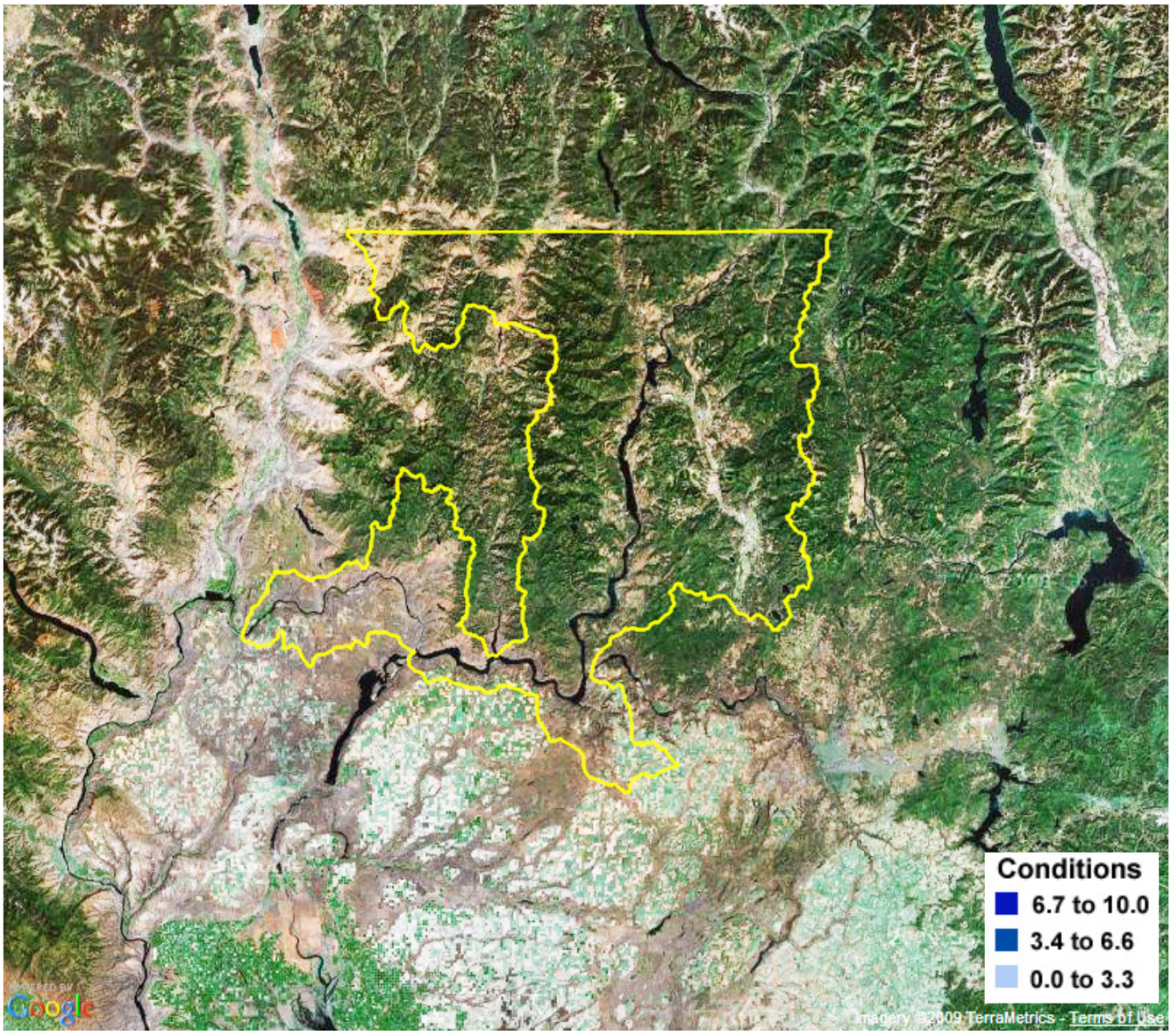
BPA-Funded Wildlife Projects in the Columbia Upper Subbasin

Project	Sponsor	Acres	HU	Habitat Type
Spokane Tribe Wildlife Mitigation	Spokane Tribe	NA	NA	NA

Intermountain Province Oversight Committee and Intermountain Province Subbasin Work Teams. 2004. Intermountain Province Subbasin Plan. A Report Prepared for the Northwest Power and Conservation Council. Portland, Oregon.

[2] Scolfield, B., C. Lee, D. Pavlik-Kunkel, K. Fields. 2007. Lake Roosevelt Fisheries Evaluation Program: Limnological and Fisheries Monitoring, 2005 Annual Report, Project Number 199404300, 197 electronic pages, (BPA Report DOE/BP-00014804-1).

Watershed Conditions for National Forest and Bureau of Land Management Lands in the Columbia Upper Subbasin



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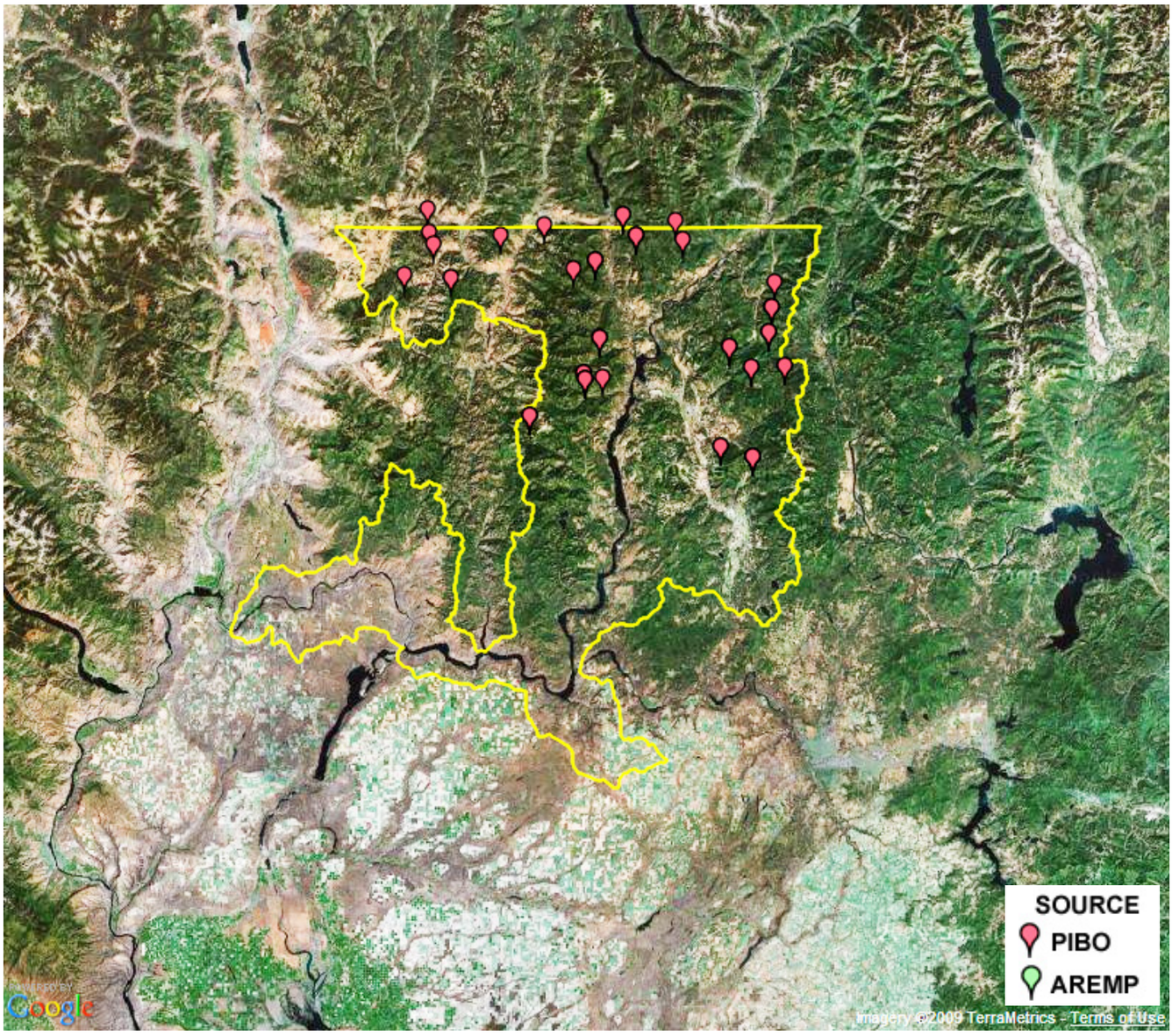
Subbasin: Columbia Upper

Stream Inventory Sites on National Forest and Bureau of Land Management Lands in the Upper Columbia Subbasin



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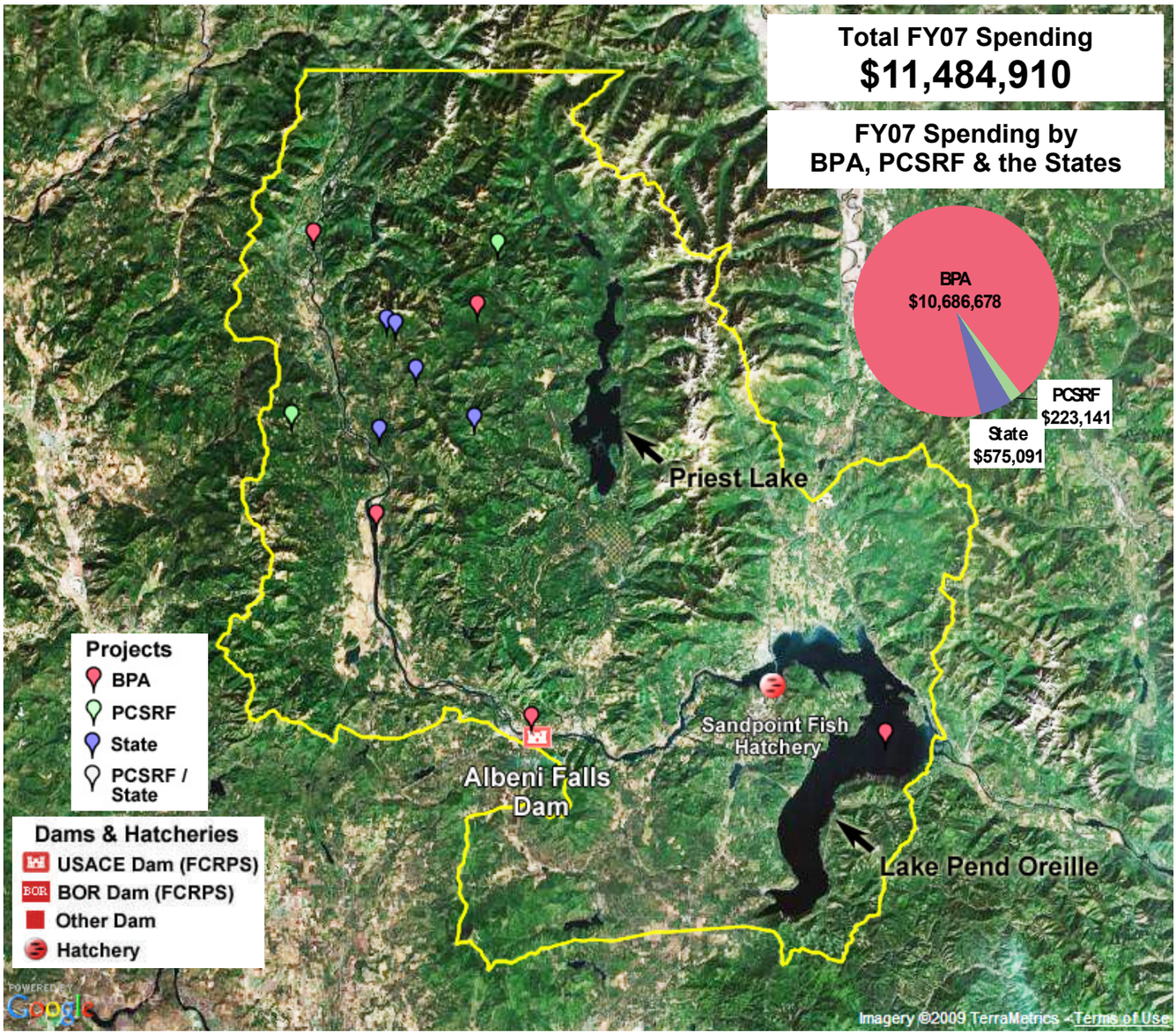
Intermountain



In the Pend Oreille Subbasin, bull trout, westslope cutthroat trout, kokanee, largemouth bass, and mountain whitefish have been identified as focal species. Bull trout are listed as threatened under the federal Endangered Species Act and westslope cutthroat trout have been petitioned for listing on multiple occasions. The two bull trout cores found in the subbasin are part of Clark Fork Recovery Unit. Draft Recovery criteria for bull trout vary among recovery units and core areas. Since 2000, kokanee harvest has been prohibited at Pend Oreille Lake due to low population levels. Although Box Canyon Reservoir provides little habitat suitable for native fish, conditions are favorable for largemouth bass. Largemouth bass have been identified as a focal species due to their value as a recreational and subsistence fishery for tribal and non-tribal members. Throughout much of the subbasin, little is know about mountain whitefish and westslope cutthroat trout abundance.

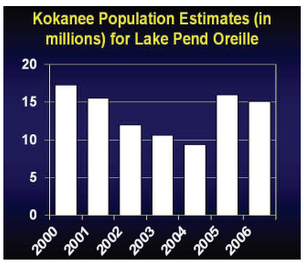
Subbasin: Pend Oreille

Key Factors Limiting Pend Oreille Focal Species[1,2,3]						
Factors for Decline/Limiting Factors/Threats		**Species/Race, and Life-Stage Most Affected**				
		Kokanee	**Largemouth Bass**	**Mountain Whitefish**	**Bull Trout**	**Westslope Cutthroat**
Habitat	Channel Structure and Complexity			Juveniles, adults	Juveniles, adults	Juveniles, adults
	Riparian Areas and LWD Recruitment			Juveniles, adults	Juveniles, adults	Juveniles, adults
	Stream Flow			All	All	All
	Water Quality			All	All	All
	Fish Passage			Juveniles, adults	Juveniles, adults	Juveniles, adults
Hydro	Hydropower Operations	eggs	Juveniles			
	Absence of Mainstem Pend Oreille Passage Facilities Limits Connectivity				Juveniles, adults	
Hatchery	Hatchery Fish Interbreeding With Wild Fish					Adults
Harvest	Mortality from Targeted Fishery					
Introduced Species	Competition with Introduced Species	Juveniles, adults			Juveniles, adults	Juveniles, adults

BPA FY 2008 Habitat Project Accomplishments in the Pend Oreille Subbasin			
Habitat Zone	**Project-type**	**Planned Value**	**FY 2008 Accomplishment (Actual Value)**
Unspecified	Develop terrestrial habitat features	8 features	8 features developed
Riparian-Upland	Plant/remove vegetation, conduct controlled burn, create/restore/enhance wetland	86 acres	126 acres improved
Riparian	Plant vegetation	1.2 miles	1.2 miles protected

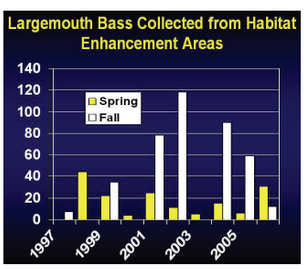
Intermountain

Kokanee



ESA Listing Status: None
Biological Objective: Lake Pend Oreille annual harvest of 750,000 of which 375,000 are hatchery-produced fish.[4] Adult population size of 3.75 million (IDFG 2001)[5]
Status: Harvest of kokanee prohibited
Population Estimate (total population)
15,170,408 fish (2006)[b]
Age 4 and 5 = 26,839 (2006)[b]

Largemouth Bass



ESA Listing Status None
Biological Objective: 12 pounds harvestable-size fish/acre in Box Canyon. No numeric objective for adult abundance described in the subbasin plan for above Albeni Falls
Status: Total number of fish collected during spring and fall sampling in eight habitat enhancement areas: 31 and 12 (2006)[a]

Mountain Whitefish

ESA Listing Status: None
Biological Objective: None
Status: Few studies exist that describe abundance. Between 1999-2001, 1,963-26,613 fish (>200 mm) existed in the Lower Clark Fork River below Cabinet Gorge Dam to the inlet of Foster side-channel[2,7]

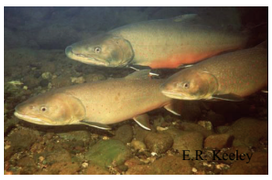
Westslope Cutthroat Trout

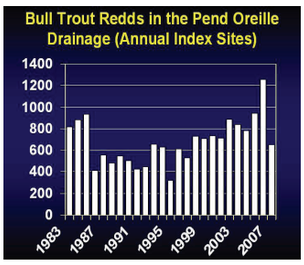
ESA Listing Status: Species of Concern
Biological Objective: None
Status: No index of adult abundance in the Idaho portion of the subbasin[3]
Over 30 populations surveyed by the Kalispel Tribe of Indians since 2002.[c]

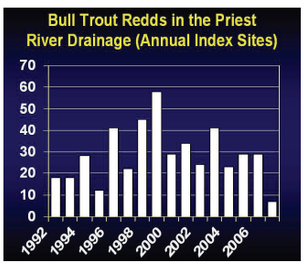
2007 Hatchery Releases and Returns to Hatcheries in the Pend Oreille Subbasin			
Hatchery/Acclimation Pond	**Species**	**Release Goal/Released**	**Return Goal/Actual Return**
Sandpoint			
Cabinet Gorge			
Clark Fork			
Kalispel			
Total			

Subbasin: Pend Oreille

Bull Trout







ESA Listing Status: Threatened
Core Population: Lake Pend Oreille (Within the Clark Fork Recovery Unit—Lower Clark Fork Sub-unit), Priest Lakes (Within the Clark Fork Recovery Unit— Priest Subunit), and Pend Oreille River downstream from Albeni Falls including all tributaries to the Canadian border (Within the Northeast Washington Recovery Unit)
Draft Recovery Plan Criteria: Lake Pend Oreille—2,500 adults among at least 6 local populations with >100 adults[1]
Priest Lakes—1,000 adults among at least 5 local populations with >100 adults[1]
Pend Oreille River—1,575-2,625 adults (Indian Creek 50-100, Slate Creek 25-75, Mill Creek 50-150, Cedar Creek 150-250, Ruby Creek 100-200), Tacoma Creek 150-350, Calispell Creek 50-100, Sullivan Creek 600-850, and Le Clerc Creek 400-550)[2]
Status: (Annual index sites)
Lake Pend Oreille Drainage
652 redds (2007)
Adult abundance estimate = 4,173 (2007)

Priest River Drainage
7 redds (2007)[3]

Abundance, Trend, Threat, and Risk Ranks (Lake Pend Oreille Core):
Abundance = 2,500-10,000
Short-term Trend = Stable
Threat = Moderate, non-imminent
Risk = Potential
Abundance, Trend, Threat, and Risk Ranks (Priest Lakes Core):
Abundance = 50-250
Short-term Trend = Rapidly declining
Threat = Substantial, imminent
Risk = High

BPA-Funded Wildlife Projects in the Columbia Upper Subbasin

Project	Sponsor	Acres	HU	Habitat Type
Albeni Falls Wildlife Mitigation Project	NA	NA	NA	NA

[a]Olson, J. and T. Anderson. 2007. Kalispel Resident Fish Project Annual Report 2006. Project Number 199500100, 60 electronic pages.

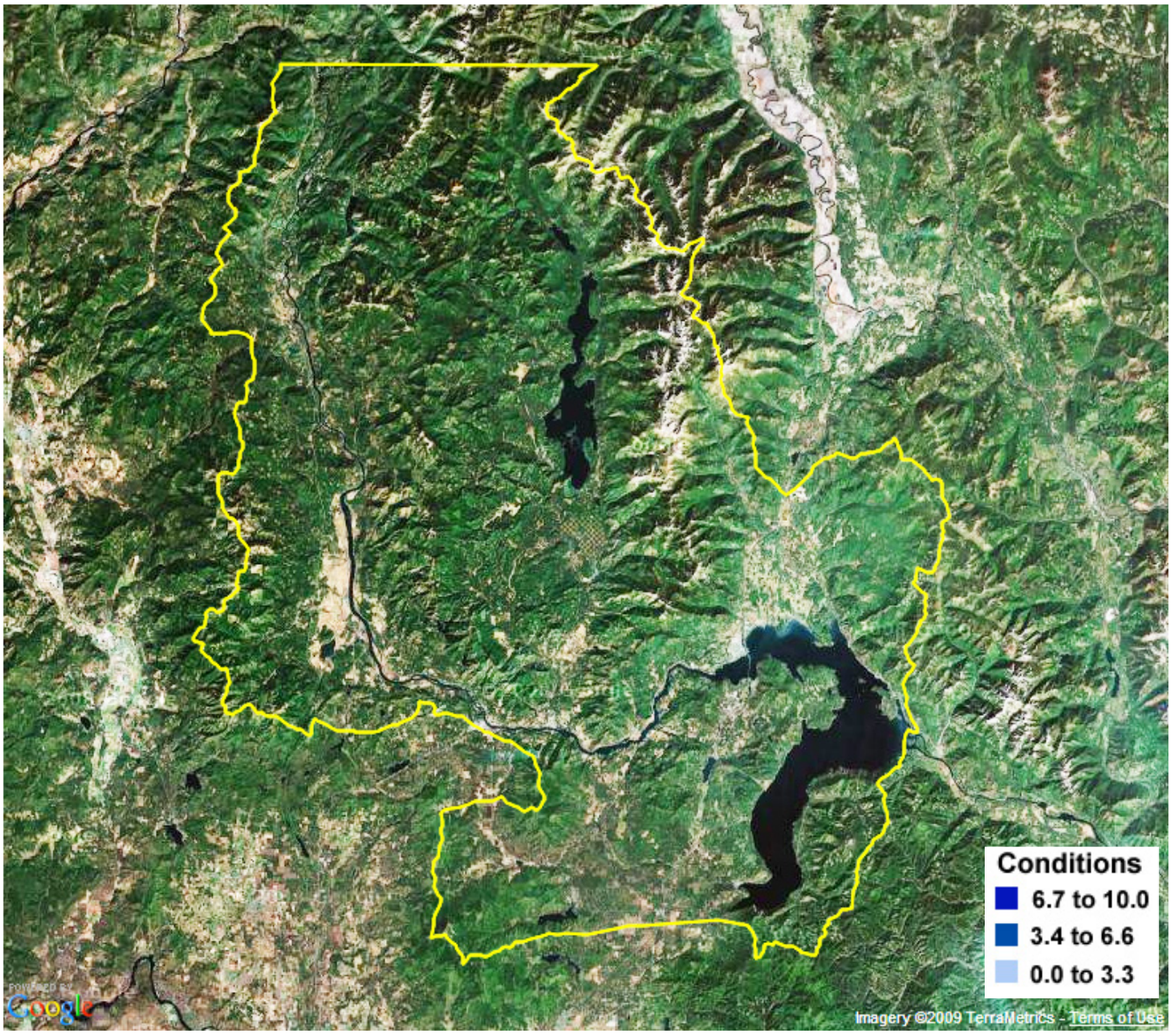
http://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=P104218

[b]P. Kline. Idahoa Department of Fish and Game, personal communication.

[c]http://atlas.knrd.org/

[1] United States Fish and Wildlife Service. 2003. Chapter 3, Clark Fork River Recovery Unit 2, Montana and Idaho. *In*: U.S. Fish and Wildlife Service. Bull Trout (*Salvelinus confluentus*) Recovery Plan. Portland, Oregon.
[2] United States Fish and Wildlife Service. 2003. Chapter 23, Northeast Washington Recovery Unit 22, Washington. *In*: U. S. Fish and Wildlife Service. Bull Trout (*Salvelinus confluentus*) Recovery Plan. Portland, Oregon.
[3] Dupont, J. Idaho Department of Fish and Game. Personal Communication.
[4] Intermountain Province Oversight Committee and Intermountain Province Subbasin Work Teams. 2004. Intermountain Province Subbasin Plan. A Report Prepared for the Northwest Power and Conservation Council. Portland, Oregon.
[5] Idaho Department of Fish and Game. 2001. Fisheries Management Plan 2001-2006. Idaho Department of Fish and Game. Boise, Idaho.
[6] Maiolie, M. Idaho Department of Fish and Game. Personal Communication.
[7] Downs, C.C., R. Jakubowski, and S.P. Morgan. 2003. Lake Pend Oreille/Clark Fork River Fishery Research and Monitoring Report 1999-2001. Prepared for Avista Corporation, Natural Resources Field Office. Noxon, Montana.
[8] Maroney, J. Kalispel Tribe Natural Resource Department. Personal Communication.

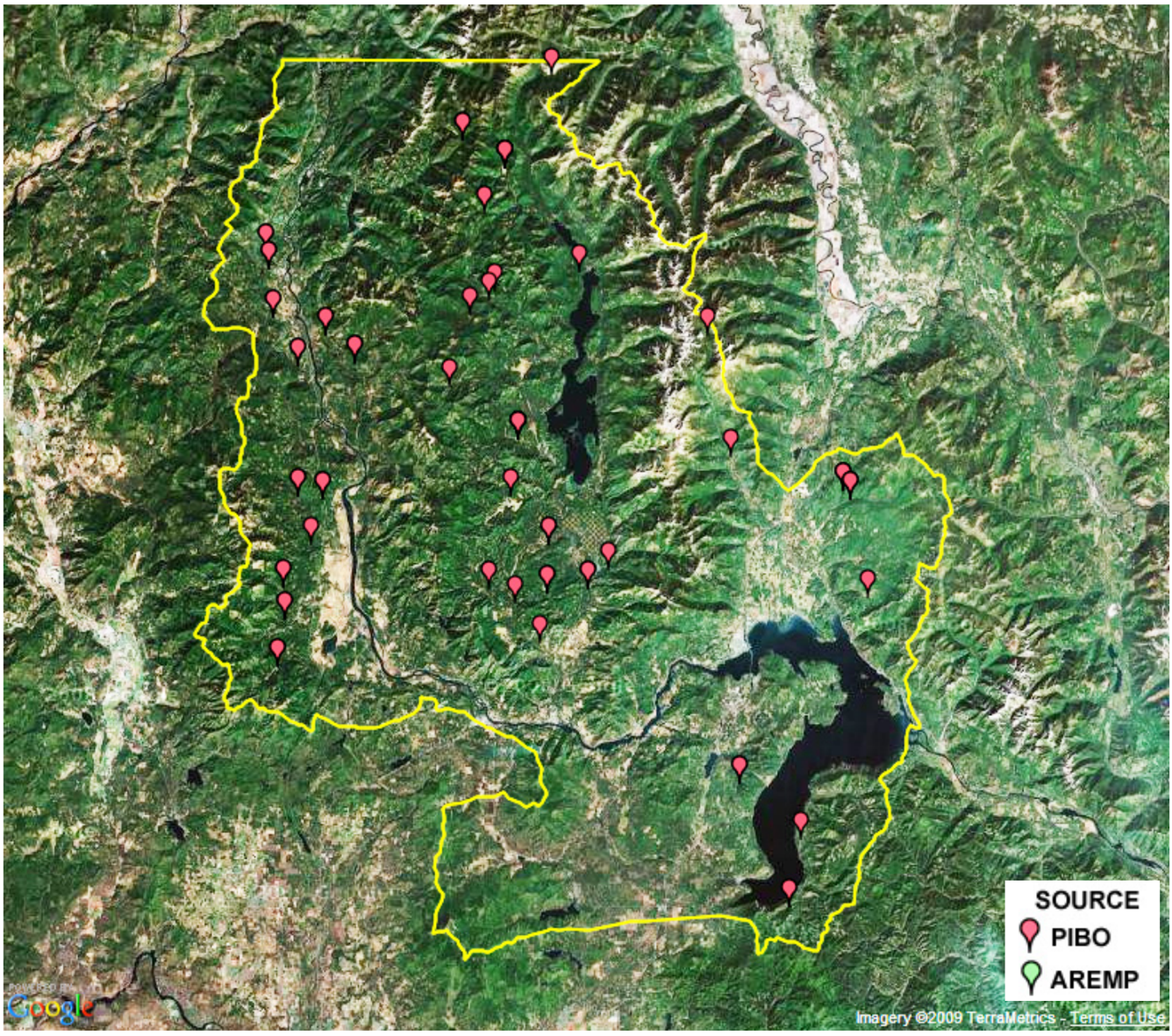
Watershed Conditions for National Forest and Bureau of Land Management Lands in the Pend Oreille Subbasin



Watershed condition is based upon work completed by the USDA Forest Service (FS) and USDI Bureau of Land Management (BLM) Aquatic and Riparian Effectiveness Monitoring Program (AREMP). AREMP personnel evaluate the status and trend of watershed condition on FS, BLM, and National Park Service administered lands within the range of the Northern Spotted Owl. Watershed condition scores are determined for all watersheds that contain a minimum of 25 percent federal ownership. AREMP applies a decision support model to evaluate the premise that watersheds are in good condition. Watersheds are judged to be in good condition where the physical processes, such as wood and sediment delivery, and habitat attributes are adequate to maintain or improve the diversity and abundance of native or desired non-native aquatic species.[7] A score of 10 indicates full support for the premise that a watershed is in good condition and a score of 0 indicates no support for the premise. A fifteen-year assessment of watersheds is being done in 2009, with an expected publication date of early 2010.

Subbasin: Pend Oreille

Stream Inventory Sites on National Forest and Bureau of Land Management Lands in the Pend Oreille Subbasin



Green Symbol—Indicates locations where stream information is collected by the USDA Forest Service and USDI Bureau and Land Management through the Aquatic and Riparian Effectiveness Monitoring Program (AREMP).

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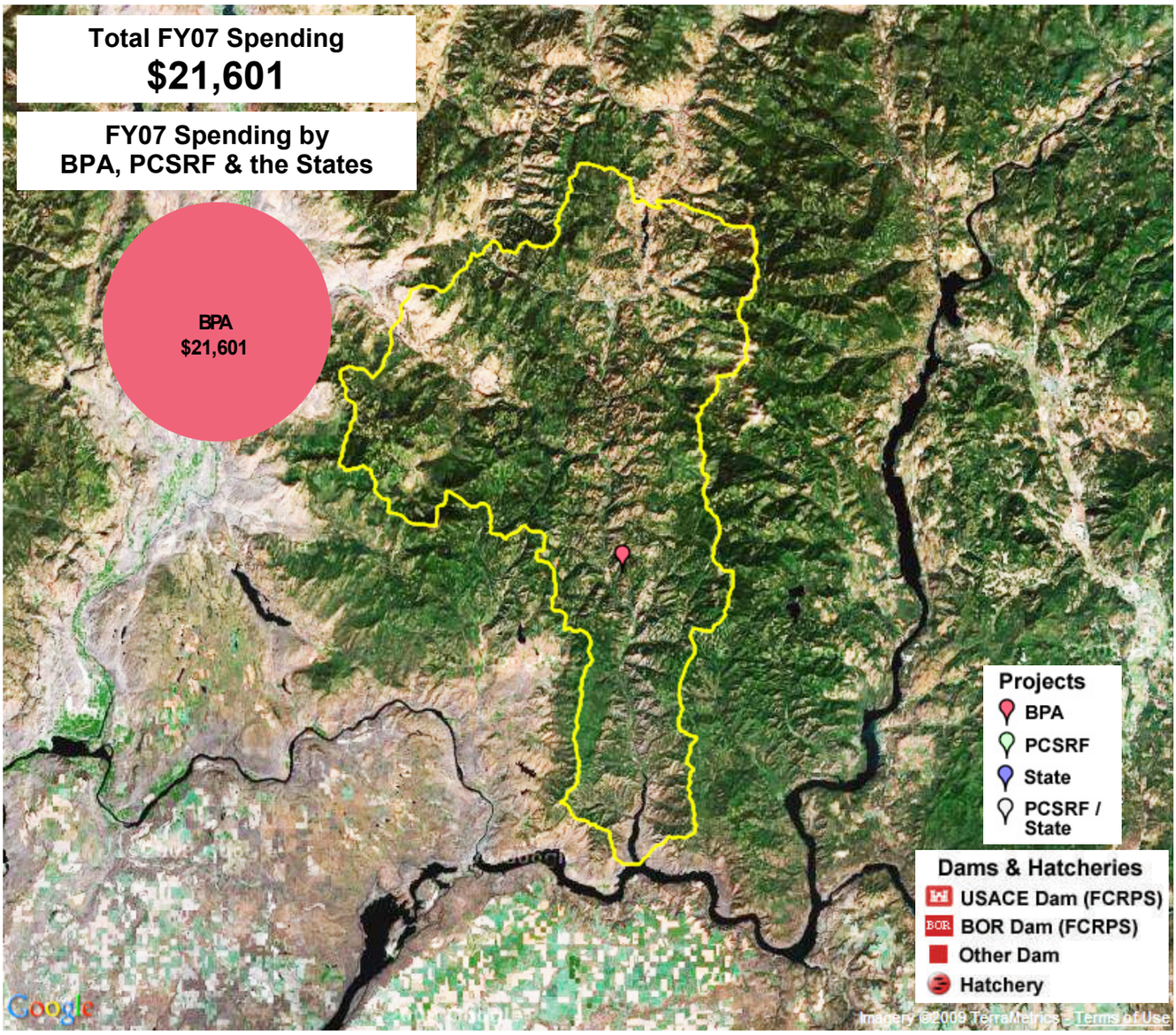
Intermountain



In the Sanpoil Subbasin, kokanee and redband trout have been identified as focal species. All andromous fish species (i.e., Chinook salmon, steelhead, and Pacific lamprey) have been extirpated due to the construction of Chief Joseph and Grand Coulee dams. Redband trout and kokanee provide recreational value as a sport fish and cultural significance to the Confederated Colville Tribes. Due to natural barriers throughout the subbasin, several populations of native redband trout have been confirmed as genetically-pure despite historic stocking of rainbow trout throughout the subbasin. Results from recent studies suggest that kokanee from the Sanpoil River are genetically and phenotypically different from hatchery-origin stocks that occur in Lake Roosevelt.

Subbasin: Sanpoil

Key Factors Limiting Sanpoil Subbasin Focal Species[1,2,3]			
Factors for Decline/Limiting Factors/Threats		**Species/Race, and Life-Stage Most Affected**	
		Kokanee	**Redband Trout**
Habitat	Channel Structure and Complexity	Juveniles, adults	Juveniles, adults
	Riparian Areas and LWD Recruitment	Juveniles, adults	Juveniles, adults
	Stream Flow	All	All
	Water Quality	All	All
	Fish Passage	Juveniles, adults	Juveniles, adults
Hatchery	Hatchery Fish Interbreeding With Wild Fish		Adults

BPA FY 2008 Habitat Project Accomplishments in the Sanpoil Subbasin			
Habitat Zone	**Project-type**	**Planned Value**	**FY 2008 Accomplishment (Actual Value)**
Riparian-Upland	Plant/remove vegetation	175 acres	175 acres improved
Riparian	Plant vegetation	2 miles	2 miles of vegetation improved

Intermountain

Chinook

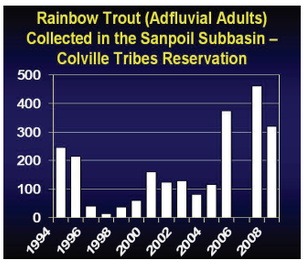
ESA Listing Status: None
Biological Objective: None
Status: Extirpated

Kokanee

Federal Designation: None
Biological Objective: None
Status: Although it is known that Sanpoil kokanee contribute to the Lake Roosevelt fishery, the extent of this contribution is unknown. In addition, the spawning locations are not well understood[1]

Rainbow Trout

Federal Designation: Species of Concern
Biological Objective: Catch rate of greater than 1 fish per hour[1]
Status: 319 adfluvial adults collected at 7sites (2008)
30-Mile Creek = 18 adults (2008)
Bridge Creek = 51 adults (2008)
Gold Creek = 71 adults (2008)
Iron Creek = 63 adults (2008)
North Nanamkin Creek = 36 adults (2008)
West Fork Sanpoil Creek = 79 (2008)



2007 Hatchery Releases and Returns to Hatcheries in the Sanpoil Subbasin
There are no hatcheries in the Sanpoil Subbasin

BPA-Funded Wildlife Projects in the Columbia Upper Subbasin

Project	Sponsor	Acres	HU	Habitat Type
Hellsgate Big game Winter Range	Colville Tribes	57,418	34,571	Grassland/rangeland, shrub-steppe, rockland/ rock riparian, ponderosa pine/mixed forest, conifer forest, sand/gravel/ cobble, riparian shrub, islands/sandbar, riverine

Subbasin: Sanpoil

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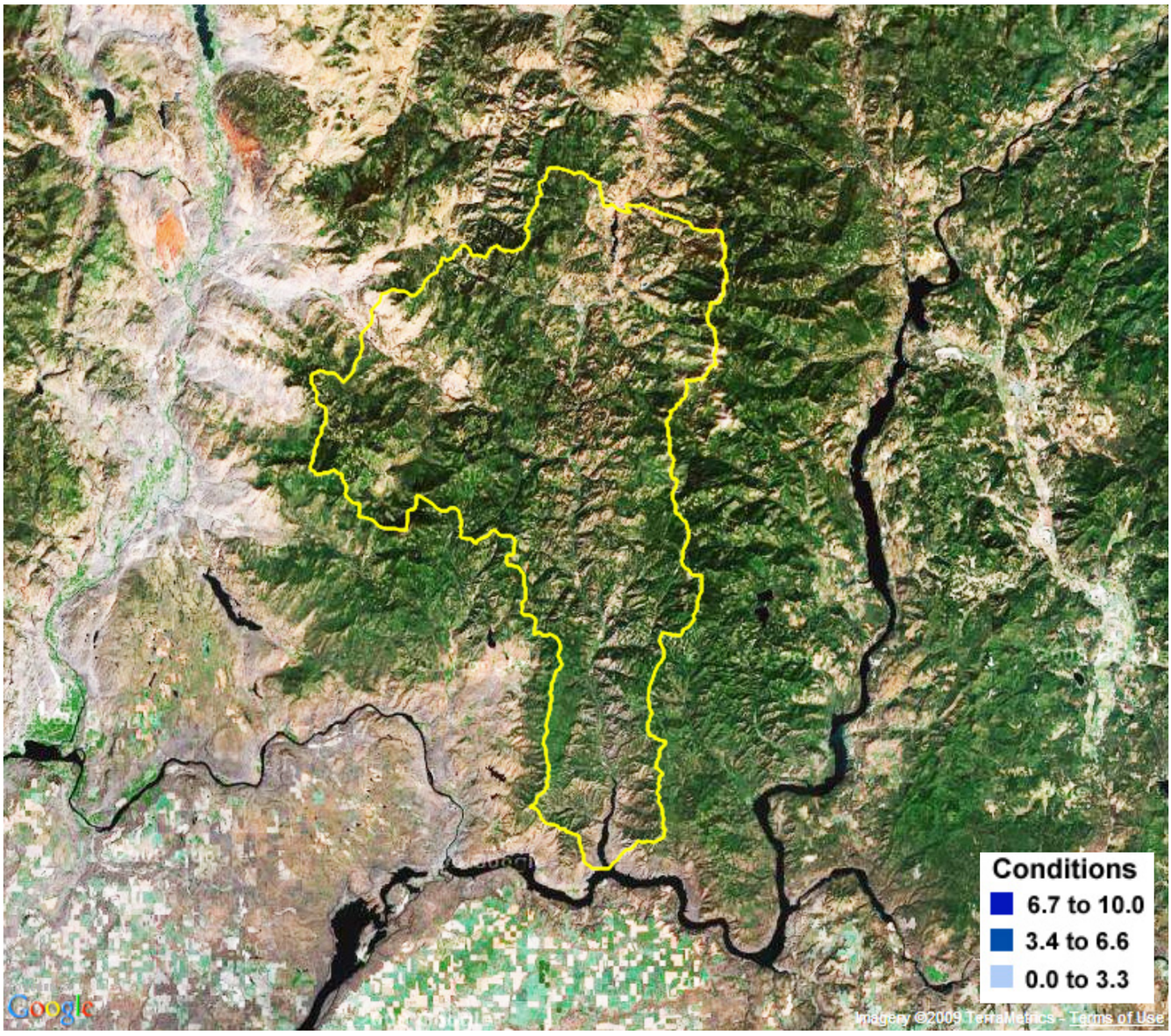
Redband data—Josh Hall, The confederated tribes of the Colville Reservation, Personal communicaiton

[1] Intermountain Province Oversight Committee and Intermountain Province Subbasin Work Teams. 2004. Intermountain Province Subbasin Plan. A Report Prepared for the Northwest Power and Conservation Council. Portland, Oregon.
[2] Sears, S. The Confederated Tribes of the Colville Reservation. Personal Communication.

Watershed Conditions for National Forest and Bureau of Land Management Lands in the Sanpoil Subbasin



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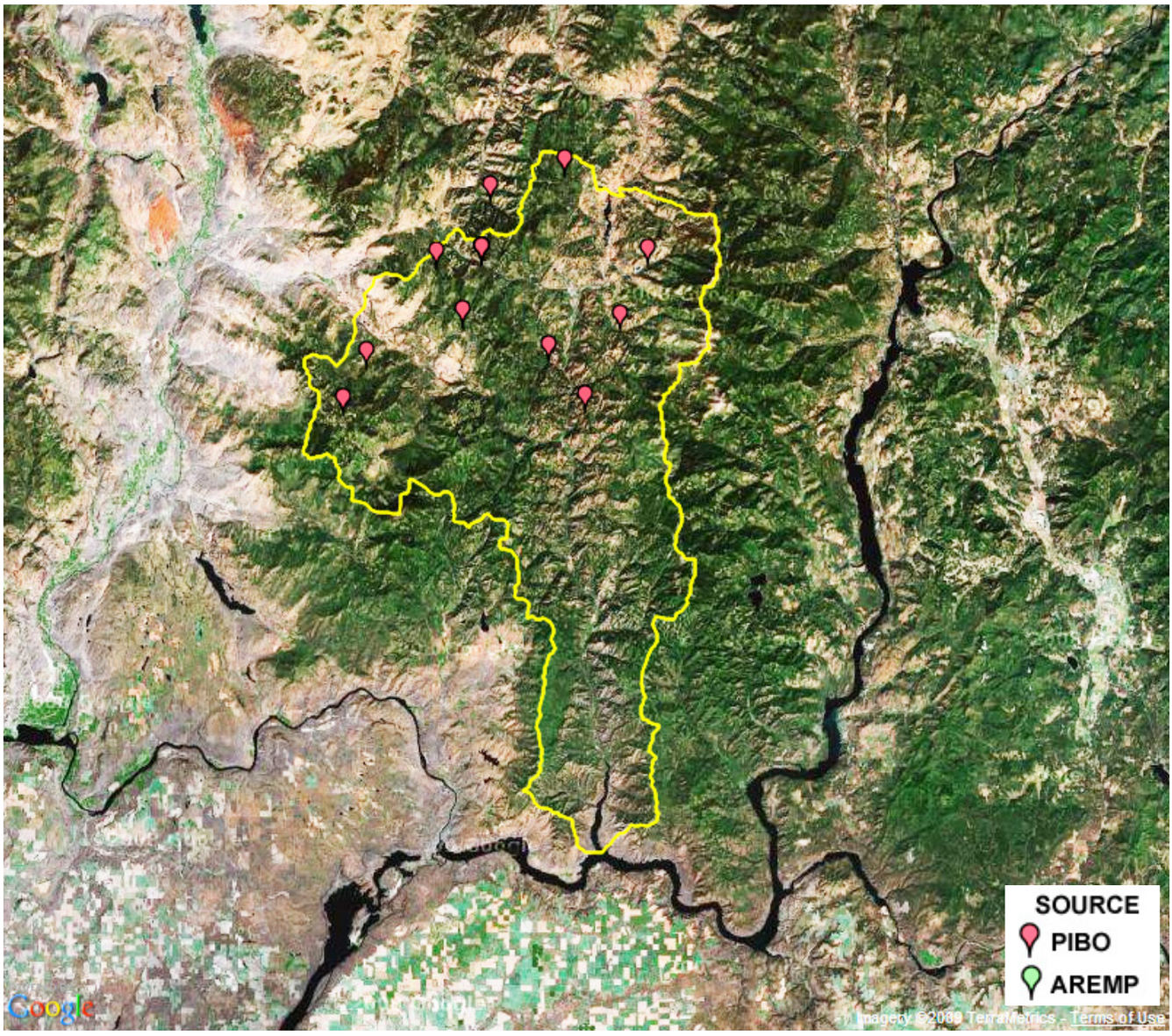
Subbasin: Sanpoil

Stream Inventory Sites on National Forest and Bureau of Land Management Lands in the Sanpoil Subbasin



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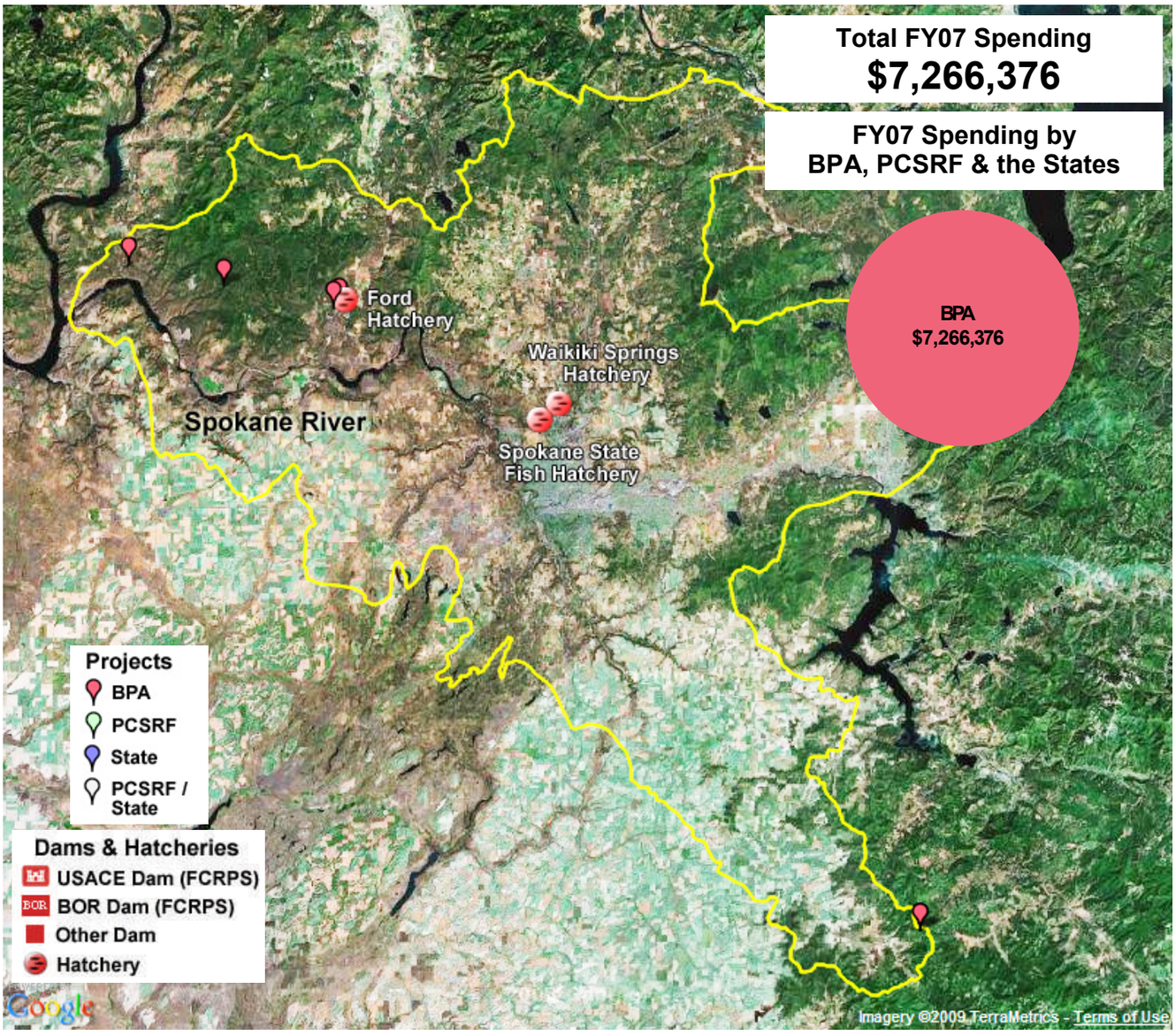
Intermountain



In the Spokane Subbasin, kokanee, largemouth bass, mountain whitefish, and redband trout have been identified as focal species. Historically, local Native American tribes harvested Chinook salmon, sockeye, and steelhead up to Spokane Falls. From 1908—1939, several dam were built along the Spokane and Columbia rivers that prevented anadromous fish passage and resulted in their extirpation. Redband trout are present, or suspected to exist throughout the subbasin; however, many information gaps (e.g. carrying capacity and potential productivity) exist. Although mountain whitefish are native to the suibbasin, general knowledge and specific information regarding abundance, distribution, life history strategy, carrying capacity, genetic population structure, and productivity is limited. Kokanee in this subbasin have been identified as genetically distinct. It is believed that kokanee in this subbasin are a remnant native sockeye stock. Although largemouth bass are not native to the subbasin, they have been identified as a focal species since they are managed as a sport fishery in Lake Spokane.

Subbasin: Spokane

Key Factors Limiting Spokane Subbasin Focal Species[1,2,3]					
Factors for Decline/Limiting Factors/Threats		**Species/Race, and Life-Stage Most Affected**			
		Kokanee	**Redband Trout**	**Mountain Whitefish**	**Largemouth Bass**
Habitat	Channel Structure and Complexity	Juveniles, adults	Juveniles, adults	Juveniles, adults	
	Riparian Areas and LWD Recruitment		Juveniles, adults	Juveniles, adults	
	Stream Flow	Adults	All	All	
	Water Quality	Adults	All	All	
	Fish Passage		Juveniles, adults		
Hydro	Mainstem River Hydro-power Operation—Related Adverse Effects				Juveniles
	Passage	Juveniles, adults	Juveniles, adults	Juveniles, adults	
Hatchery	Hatchery Fish Interbreed-ing With Wild Fish		Adults		
Introduced Species	Competition with Intro-duced Species		Juveniles, adults		

BPA FY 2008 Habitat Project Accomplishments in the Spokane Subbasin			
Habitat Zone	**Project-type**	**Planned Value**	**FY 2008 Accomplishment (Actual Value)**
Riparian-Upland	Plant vegetation	95.1 acres	95.1 acres improved
Riparian	Plant vegetation	0.5 miles	0.5 miles protected

Intermountain

Chinook

ESA Listing Status: None
ESU: None
Biological Objective: None
Status: Extirpated

Kokanee

ESA Listing Status: None
Biological Objectives: None
Status:
Lake Roosevelt (Porcupine Bay)
Relative Abundance = 0.8% for hatchery fish and 0.4% for wild fish (2004)[3]
CPUE = 0.69 fish/hour (2004)[3]

Redband Trout

ESA Listing Status: Species of Concern
Biological Objectives: None
Status: A better understanding of the current population status is needed[1]
Upper Spokane River
1,149 fish ≥ 200 mm (2007)[b]

Middle Spokane River
CPUE (eletrofishing) = 15.8 (±8.5) fish/1.85 hours, 0.1 (±0.2) (gill netting) (2007)[a]

Free-flowing Spokane River
Relative Abundance = 11.7% (2002)[2]

CPUE = 28.3 (±5.5) fish/hour (2002)[2]

Nine Mile Reservoir
Relative Abundance = 8.2% (2002)[2]
CPUE (electrofishing) = 8.0 (±2.9) fish/hour (electrofishing), 3.4 (± 1.0) fish/hour (littoral gillnetting), and 2.8 (± 1.2) fish/hour (pelagic gillnetting)(2002)[2]

Lake Roosevelt (Porcupine Bay)
Relative Abundance = 0.4% for

Pacific Lamprey

ESA Listing Status: None
Biological Objectives: None
Status: Extirpated

Mountain Whitefish

ESA Listing Status: None
Biological Objectives: None
Status: Current data on abundance is limited. Research is needed to identify the current condition of the population[1]

Middle Spokane River
CPUE (eletrofishing) = 9.8 (±6.4) fish/1.85 hours, 0.0 (gill netting) (2007)

Free-flowing Spokane River
Relative Abundance = 11.7% (2002)[2]
CPUE = 30.9 (± 12.0) fish/hour (2002)[2]

Nine Mile Reservoir
Relative Abundance = 0.9% (2002)[2]
CPUE = 2.7 (±1.6) fish/hour (electrofishing), 0.1 (± 0.2) fish/hour (littoral gillnetting), and 0.2 (± 0.2) fish/hour (pelagic gillnetting) (2002)[2]

Largemouth Bass

ESA Listing Status: None
Biological Objectives: None
Status: Lack of trend data[1]

Nine Mile Reservoir
Relative Abundance = 0.9% (2002)[2]
CPUE = 3.0 (±3.1) fish/hour (2002)[2]

Lake Roosevelt (Porcupine Bay)
Relative Abundance = 0.0% (2004)[3]
CPUE = 0 fish/hour (2004)[3]

2007 Hatchery Releases and Returns to Hatcheries in the Spokane Subbasin
There are no hatcheries in the Spokane Subbasin

Subbasin: Spokane

http://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=P106617

[a]O'Connor, R.R. and J. G. McLellan. 2008. Baseline Fish Community Assessment for the Middle Spokane River, WDFW Resident Fish Stock Status Project Annual Progress Report March 2007-February 2008, Project Number 199700400, 19 electronic pages.

http://pisces.bpa.gov/release/documents/documentviewer.aspx?doc=P106616

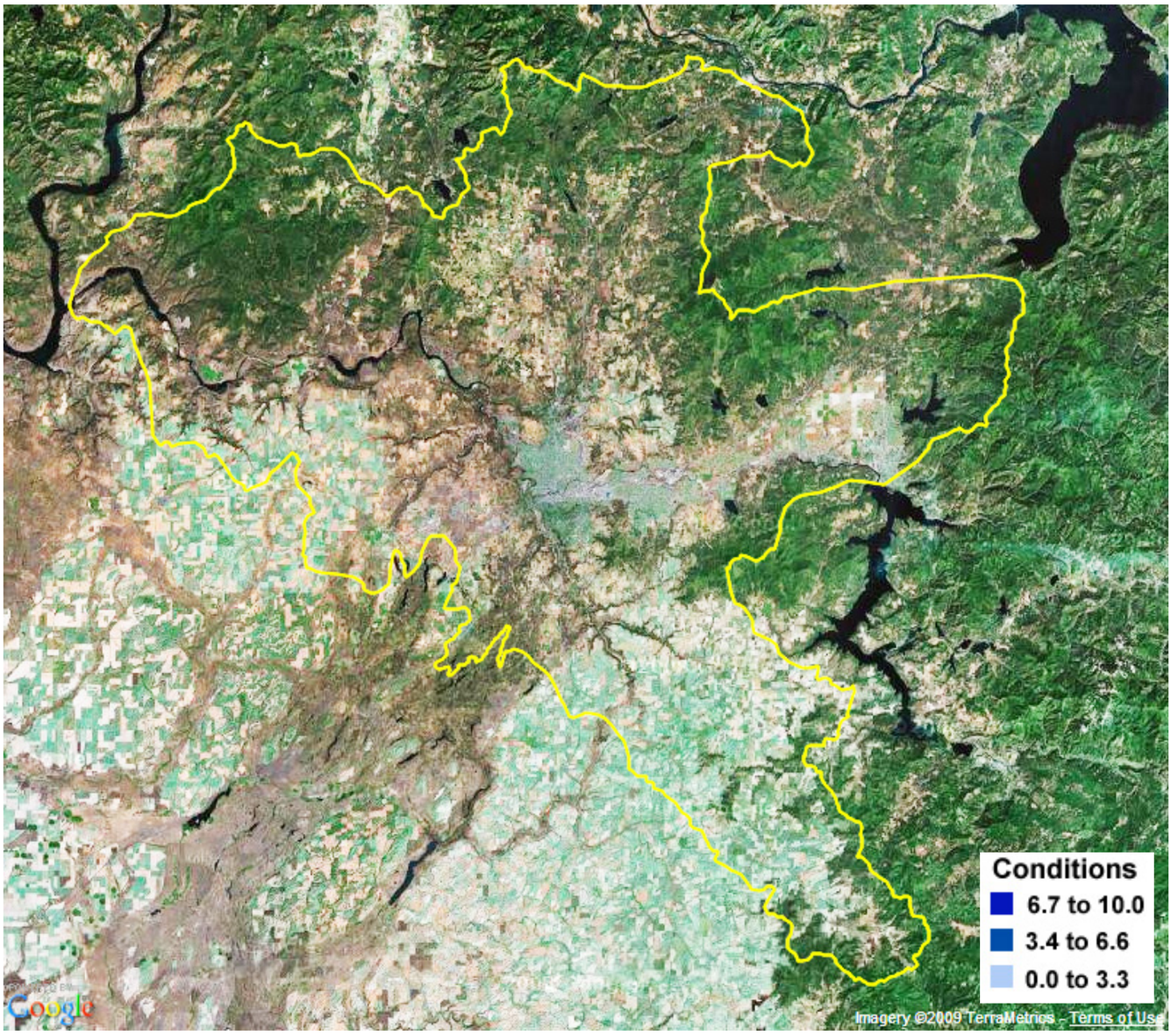
[b]O'Connor, R.R. and J. G. McLellan. 2008. Stock Status of Redband Trout in the Upper Spokane River, Washington, WDFW Resident Fish Stock Status Project Annual Progress Report March 2007-February 2008, Project Number 19900400, 35 electronic pages.

BPA-Funded Wildlife Projects in the Spokane Subbasin

Project	Sponsor	Acres	HU	Habitat Type
Spokane Tribe of Indians Wildlife Mitigation Project	Spokane Tribe	NA	NA	NA
Spokane Tribe of Indians Wildlife Operations and Maintenance	Spokane Tribe	NA	NA	NA
Implement Wildlife Habitat Protection and Restoration on the Coeur d'Alene Indian Reservation: Hangman Watershed	Coeur d'Alene Tribe	NA	NA	NA
Blue Creek Winter Range	Spokane Tribe	NA	NA	NA

[1] Intermountain Province Oversight Committee and Intermountain Province Subbasin Work Teams. 2004. Intermountain Province Subbasin Plan. A Report Prepared for the Northwest Power and Conservation Council. Portland, Oregon.
[2] McLellan, J.G. 2003. 2002 WDFW Annual Report for the Project Resident Fish Stock Status above Chief Joseph and Grand Coulee Dams. Part I. Baseline Assessment of Fish Species Distribution and Densities in the Little Spokane River Drainage, Year 2, and the Spokane River between Spokane Falls and Nine Mile Falls Dam. Pages 149-296 *in* Connor, J. and nine other authors. 2003. Resident Fish Stock Status above Chief Joseph and Grand Coulee Dams. 2002 Annual Report, Report to Bonneville Power Administration, Project Number 199700400, (BPA Report DOE/BP-00004619-3).
[3] Lee, C., D. Pavlik-Kunkel, K. Fields, and B. Scofield. 2006. Lake Roosevelt Fisheries Evaluation Program: Limnological and Fisheries Monitoring, 2004-2005 Annual Report, Project Number 199404300, 202 electronic pages, (BPA Report DOE/BP-00014804-1).

Watershed Conditions for National Forest and Bureau of Land Management Lands in the Spokane Subbasin



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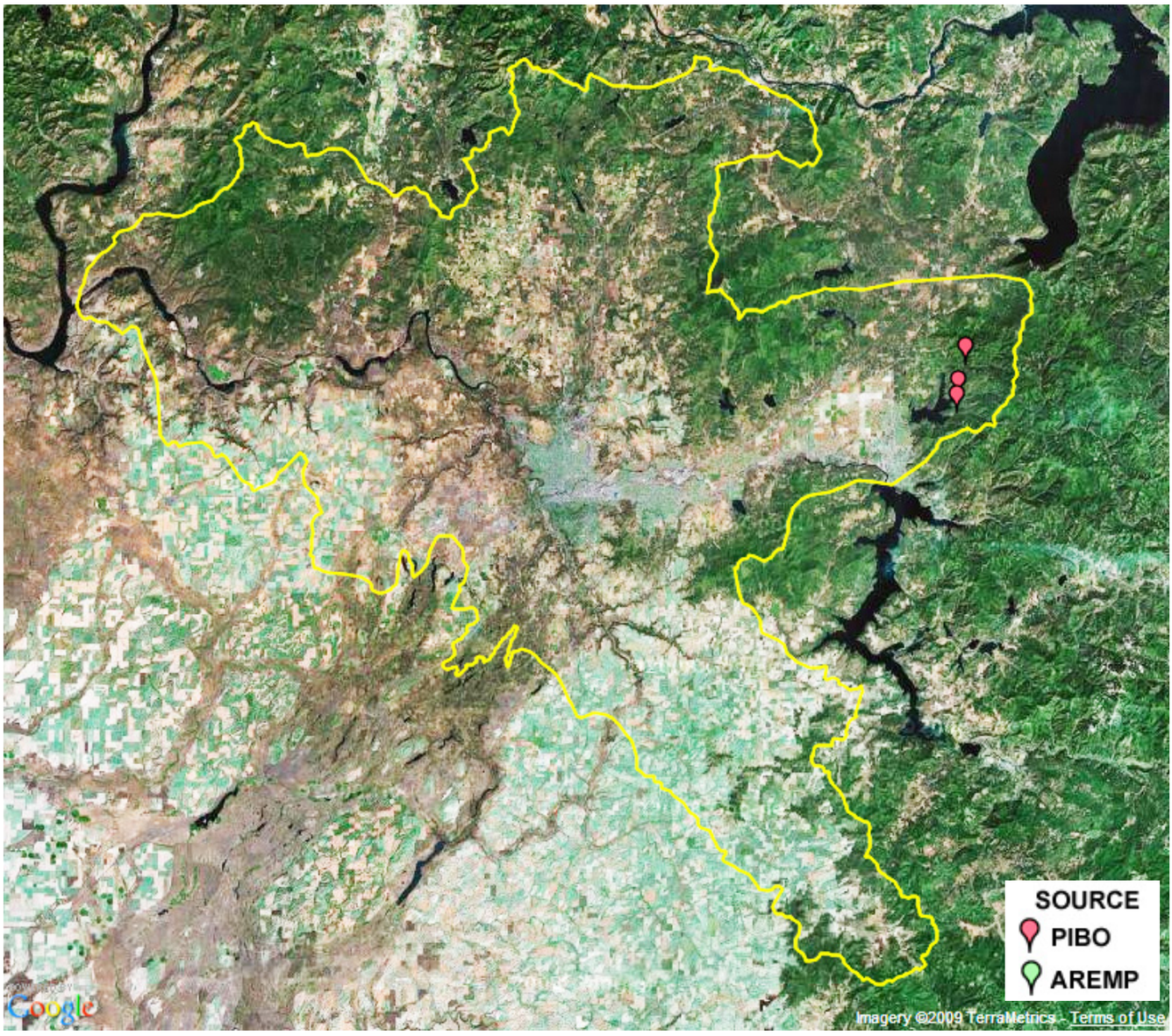
Subbasin: Spokane

Stream Inventory Sites on National Forest and Bureau of Land Management Lands in the Spokane Subbasin



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