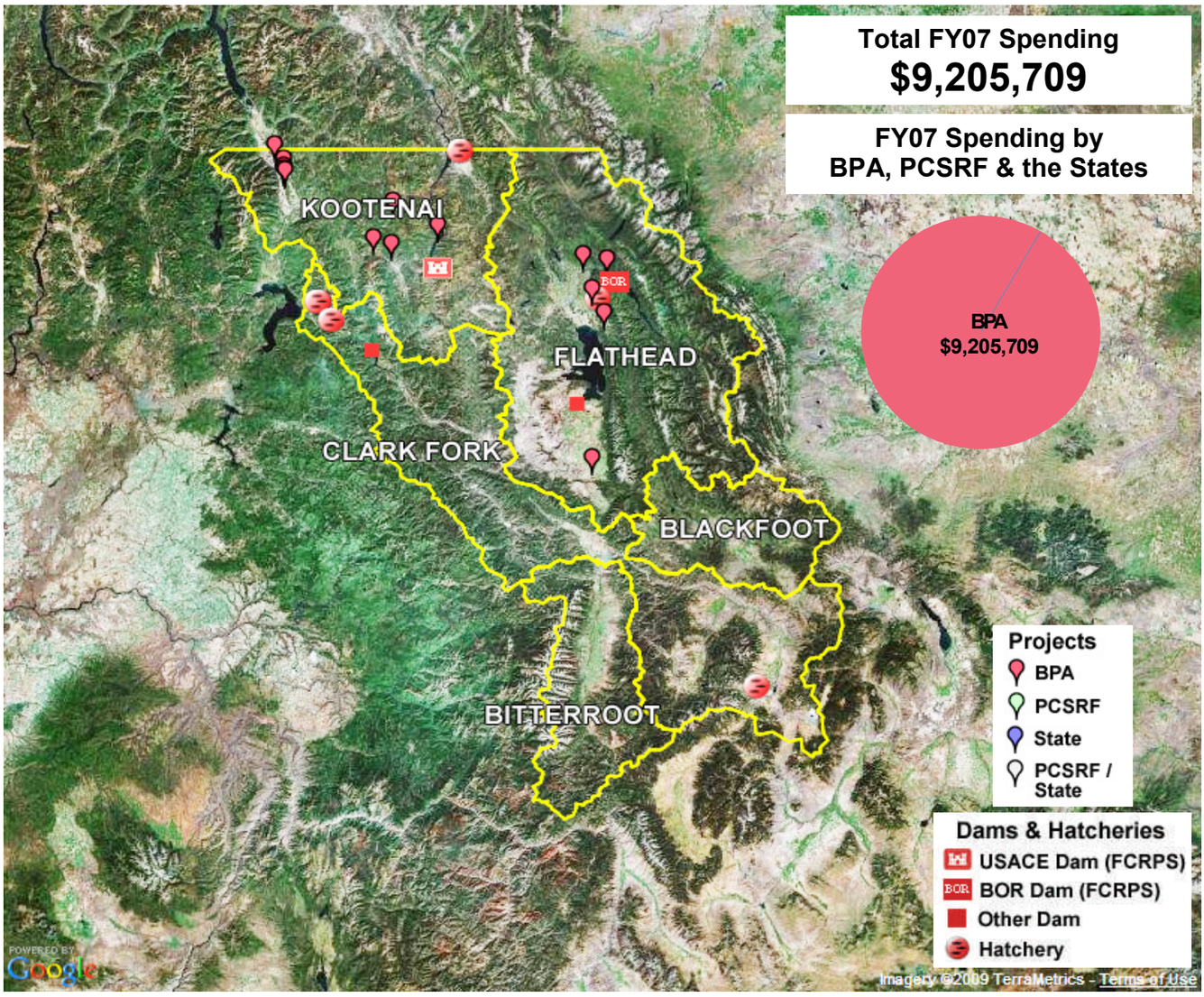
Mountain Columbia



Land Ownership
Federal……....63%
Private……29%
Tribal……...8%

The Mountain Columbia Province, located in northern Idaho and northwestern Montana, encompasses an area of 25,549 square miles. Subbasins in the Mountain Columbia Province include the Flathead and Kootenai. Bull trout populations throughout the province are listed as threatened under the federal Endangered Species Act (ESA). In addition, the Kootenai River white sturgeon population is listed as Endangered under the federal ESA. Resources in this province have been impacted by extensive anthropogenic activities that have severely degraded riparian and in-stream habitat. The operations of hydroelectric facilities in this province have altered the river hydrograph and annual thermal regime. As a result, there has been a decrease in the productivity of the river, the fish communities have been altered, white sturgeon recruitment has declined, the burbot fisheries have collapsed, the quality of the rainbow trout and westslope cutthroat trout fisheries have declined, and there has been a reduction in the recruitment of bull trout.

BPA FY 2008 Habitat Project Accomplishments in the Mountain Columbia Province[1]			
Habitat Zone	**Project-type**	**Planned Value**	**FY 2008 Accomplishment (Actual Value)**
Instream	Increase instream habitat complexity	0.35 miles	0.35 stream miles treated
	Increase instream habitat complexity	20 structures	25 structures installed
	Install pipeline	2 cfs	2 cfs water conserved
	Install pipeline	40 acre-feet	40 acre-feet water conserved
	Install pipeline	4 miles	4 miles of primary stream improved
	Install pipeline	4 miles	4 miles of total stream reach improved
	Realign, connect, and/or create channel	1.6 miles	1.7 stream miles after treatment
	Realign, connect, and/or create channel	1.6 miles	1.4 stream miles before treatment
Riparian-Upland	Install fence	1.5 miles	0 miles of fence installed
	Plant/remove vegetation, create, restore, and/or enhance wetlands	762.3 acres	761.7 acres treated
	Decommission/relocate road	41 miles	4 road miles treated
	Land purchase	22 acres	22 acres protected
Riparian	Plant vegetation	9.26 miles	9.26 miles planted
Wetland	Realign, connect, and/or create channel	3 acres	1 acre affected
Unspecified	Develop terrestrial habitat features	10 features	10 features developed
	Land purchase	24 habitat units	24 habitat units protected

Habitat Improvement Project — Investigations of the Hungry Horse Mitigation Program[2]

Trail Creek, a tributary of the North Fork of the Flathead River, is a bull trout spawning stream that in the past was characterized by degraded riparian conditions. In 2006, Montana Fish, Wildlife, and Parks initiated a bank stabilization, sediment abatement, and revegetation project to mitigate slope erosion along a portion of Trail Creek. Efforts included the implementation of erosion wattles, planting, and wildlife-exclusion fence (Figure 1). In 2007, additional contour wattles were installed on the most-upstream side of the slope where erosion was most severe. Additional plants (e.g., raspberry, wild rose, serviceberry, spruce, and cottonwood) were added to the lower areas of the restoration bank in 2007. Efforts were mainly focused near the toe of the slope where nutrient-rich soil was deposited following the construction of the wattles in 2006 (Figure 2).


Figure 1


Figure 2

Mountain Columbia

Focal Species in the Mountain Columbia Province[a]

Focal Species	Flathead	Kootenai
Bull Trout		
Burbot		
Kokanee		
Redband Trout		
Westslope Cutthroat Trout		
White Sturgeon		

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

[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

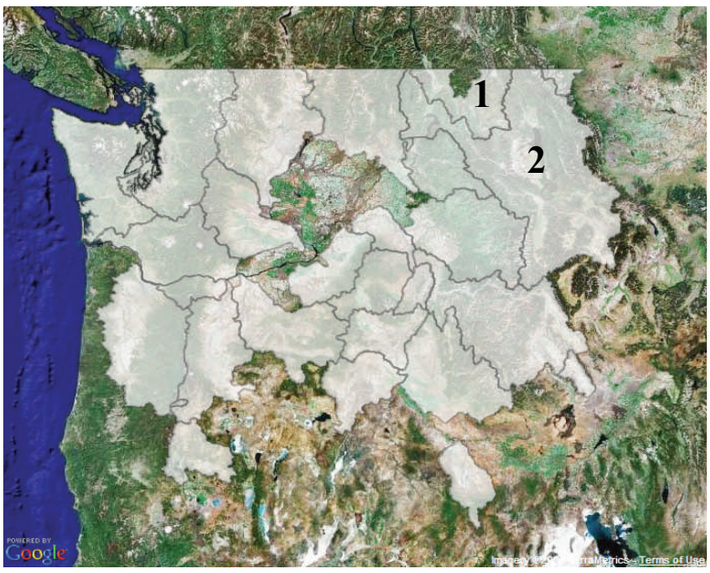
2007 Hatchery Releases in the Mountain Columbia Province[3,4]

Species	Released
White Sturgeon	16,572 (current space and staffing constraints continue to limit the number of fish that can be spawned in any given year)
TOTAL	

Wildlife Habitat Losses by Hydroelectric Facility in the Mountain Columbia Province[5]

Bonneville Power Administration's wildlife mitigation obligations have been settled regarding Libby and Hungry Horse dams

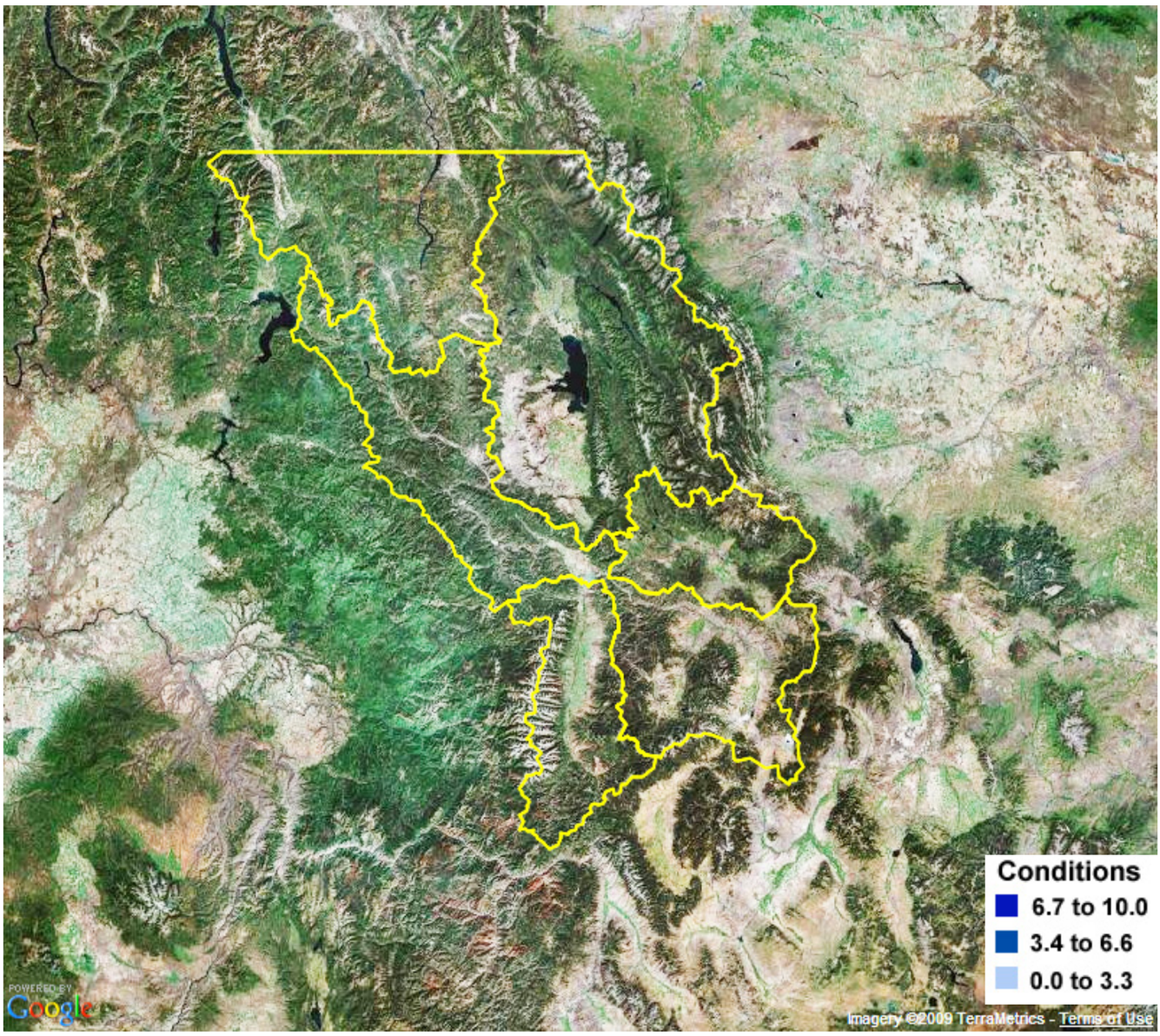
Bull Trout Status in the Mountain Columbia Province[6]



Recovery Unit	Number of cores	Abundance	Trend	Threat	Risk
Kootenai River (1)	4	10,501-102,050	Unknown (1) Stable (3) Increasing (1)	Moderate, imminent (1) Moderate, non-imminent (1) Widespread, low-severity (1) Substantial, imminent (1)	At (2) Low (1) High (1)
Clark Fork River (2)	38	10,157-38,850	Unknown (21) Declining (4) Rapidly declining (2) Very rapid decline (2) Severely declining (3) Stable (4) Increasing (2)	Unthreatened (3) Slightly (4) Widespread, low-severity (2) Substantial, imminent (12) Substantial, non-imminent (3) Localized, substantial (1) Moderate, imminent (9) Moderate, non-imminent (4)	Potential (10) At (10) High (18)

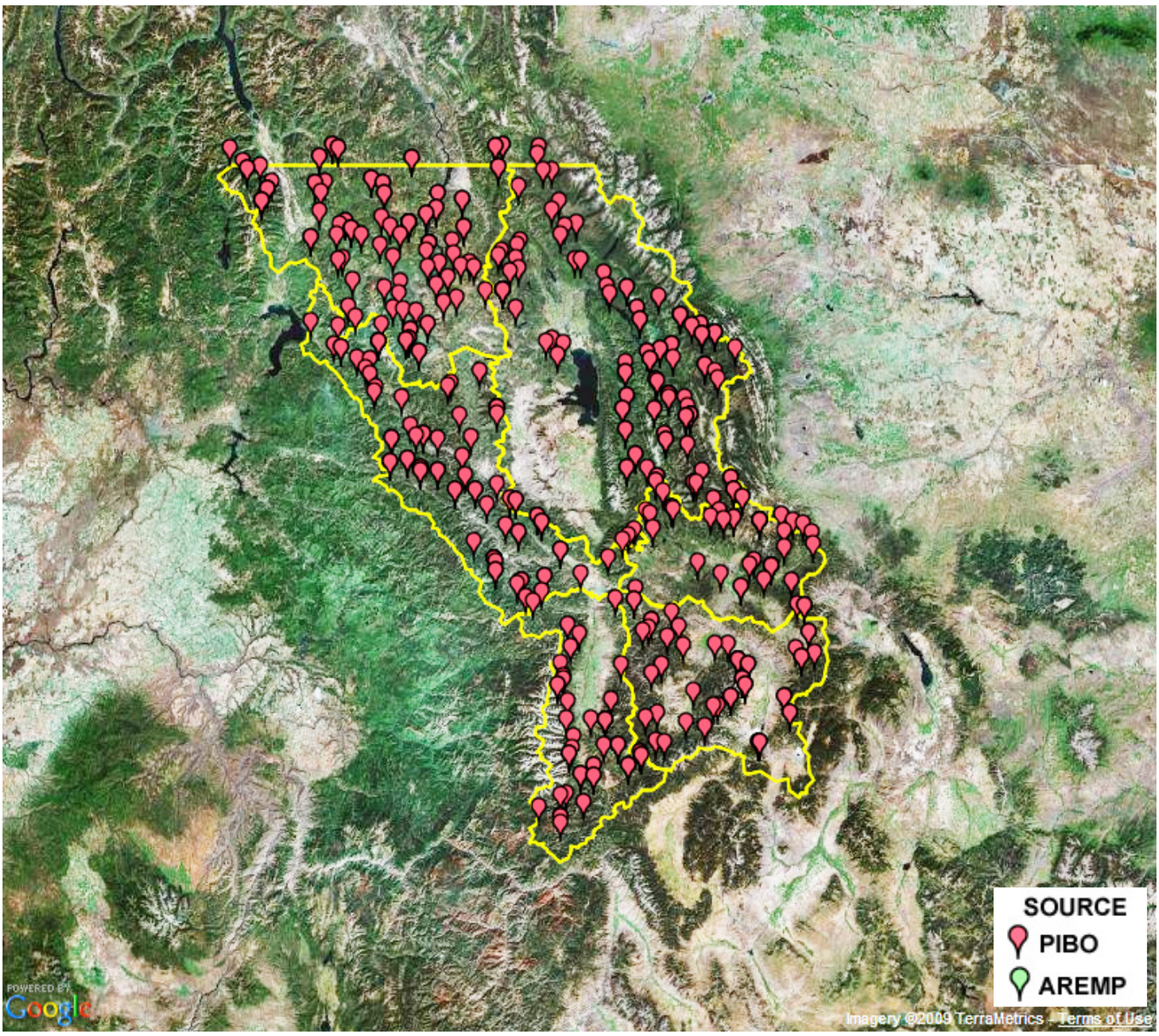
Mountain Columbia

Watershed Conditions for National Forest and Bureau of Land Management Lands in the Mountain Columbia 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.

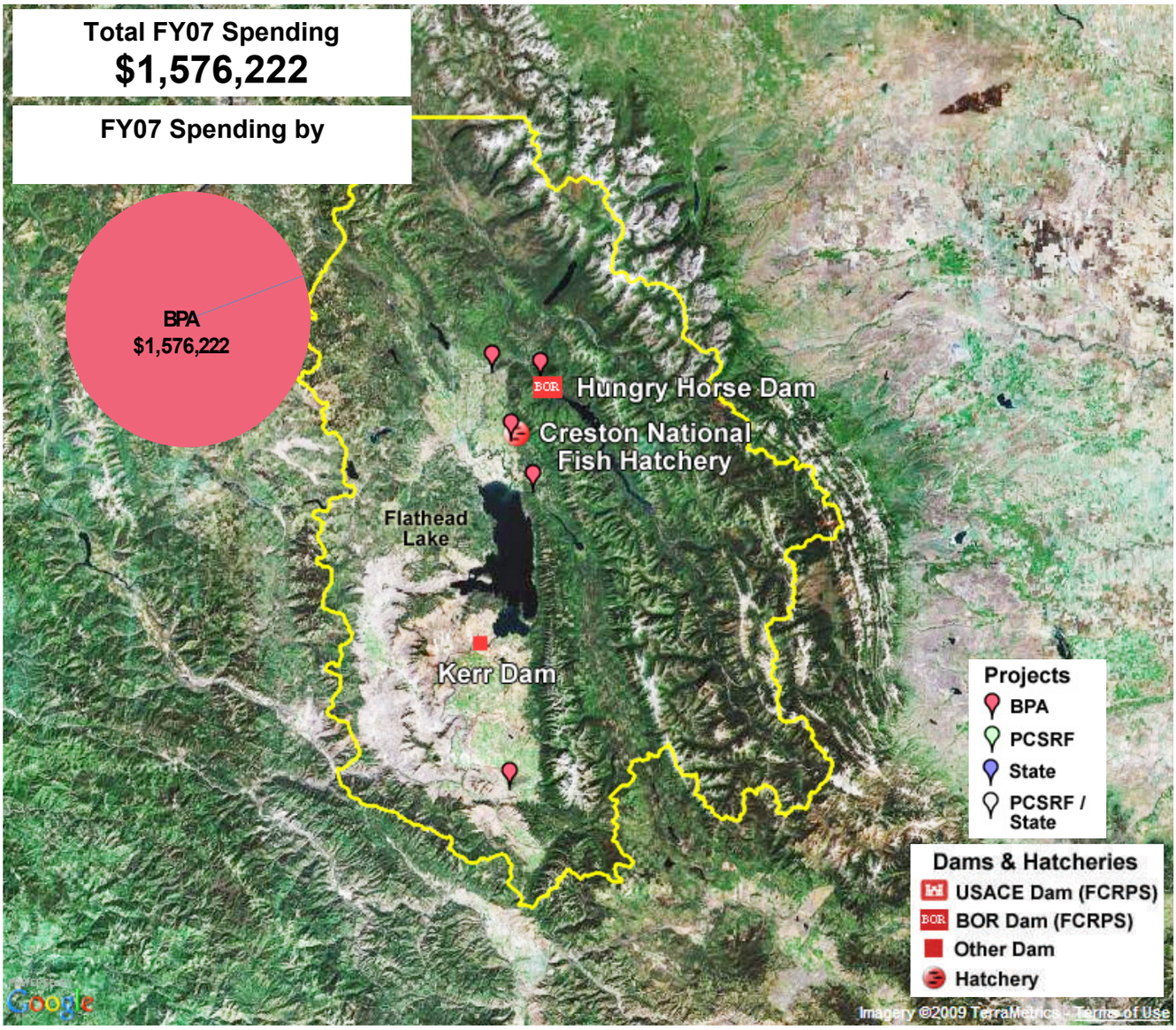
Stream Inventory Sites on National Forest and Bureau of Land Management Lands in the Mountain Columbia Province



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).

Red Symbol—Indicates locations where stream inventory information is collected by the USDA Forest Service and USDI Bureau and Land Management through the PacFish/InFish Biological Opinion Monitoring Program (PIBO). The locations and information reported are for the sentinel and integrator sites used to track habitat status and trend within the PIBO area over time.[8]

Mountain Columbia



In the Flathead Subbasin, bull trout and westslope cutthroat trout 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 27 bull trout cores found in the subbasin are part of Clark Fork River Recovery Unit. Draft Recovery criteria for bull trout vary among recovery units and core areas.

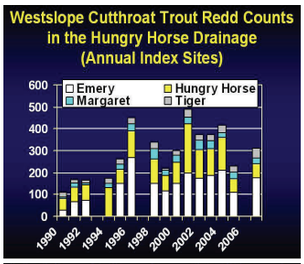
Subbasin: Flathead

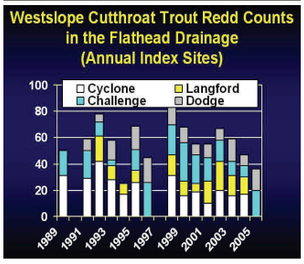
Key Factors Limiting Flathead Subbasin Focal Species[7]			
Factors for Decline/Limiting Factors/Threats		**Species and Life-Stage Most Affected**	
		Bull Trout	**Westslope Cutthroat Trout**
Habitat	Floodplain Connectivity and Function	All life stages	All life stages
	Channel Structure and Complexity	All life stages	All life stages
	Riparian Areas and LWD Recruitment	Al l life stages	All life stages
	Stream Flow	All life stages	All life stages
	Water Quality	All life stages	All life stages
	Fish Passage	All life stages	All life stages
Hydro	Mainstem Columbia River Hydropower-related Adverse Effects	Juveniles, subadults, adults	Juveniles, subadults, adults
Hatchery	Hatchery Fish Interbreeding With Wild Fish		Adults
Predation/ Competition/Disease/ Hybridization	Predation by or competition with non-native species	All life stages	All life stages

BPA FY 2008 Habitat Project Accomplishments in the Flathead Subbasin[1]			
Habitat Zone	**Project-type**	**Planned Value**	**FY 2008 Accomplishment (Actual Value)**
Instream	Increase instream habitat complexity	0.35 miles	0.35 stream miles treated
	Increase instream habitat complexity	20 structures	25 structures installed
	Install pipeline	2 cfs	2 cfs water conserved
	Install pipeline	40 acre-feet	40 acre-feet water conserved
	Install fish passage structure	miles	habitat miles accessed
	Install pipeline	4 miles	4 miles of primary stream improved
	Install pipeline	4 miles	4 miles of total stream reach improved
	Realign, connect, and/or create channel	1.6 miles	1.7 stream miles after treatment
	Realign, connect, and/or create channel	1.6 miles	1.4 stream miles before treatment
Riparian-Upland	Install fence	1.5 miles	0 miles of fence installed
	Plant/remove vegetation	17.7 acres	17.1 acres treated
	Decommission/relocate road	41 miles	4 road miles treated
Riparian	Plant vegetation	1.01 miles	1.01 miles planted
Wetland	Realign, connect, and/or create channel	3 acres	1 acre affected

Mountain Columbia

Westslope Cutthroat Trout





ESA Listing Status: Species of Concern
Biological Objective: At least 500 adults per conservation population (at least 20 genetically pure populations) with a minimum of 50 adults in each subpopulation[7]
Status:
Hungry Horse Reservoir Tributaries (annual index sites)
Emery Creek—178 redds (2007)[8]
Hungry Horse Creek—134 redds (2007)[8]
Margaret Creek—24 redds (2007)[9]
Tiger Creek—46 redds (2007)[9]

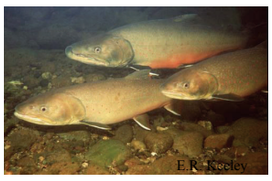
Flathead Drainage (annual index sites)
Cyclone Creek—17 redds (2004)[8]
Langford Creek—13 redds (2004)[8]
Challenge Creek—13 redds (2007)[9]
Dodge Creek—9 redds (2007)[9]

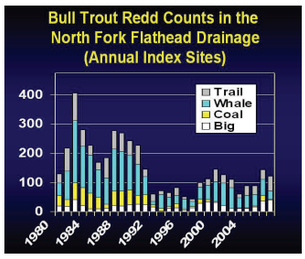
Bull Trout Abundance, Trend, Threat, and Risk Ranks in the Flathead Subbasin (Clark Fork Recovery Unit)[6]

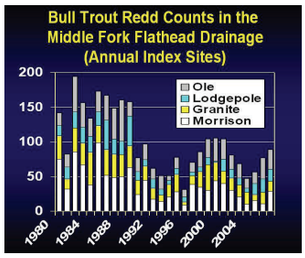
Core Area	Population Abundance	Short-term Trend	Threat Level	Risk Level
Akokala Lake	50-250	Unknown	Unthreatened	Potential
Arrow Lake	50-250	Unknown	Slightly	Potential
Big Salmon Lake	250-1,000	Declining	Widespread, low-severity	At
Bowman Lake	1-50	Very Rapid Decline	Substantial, imminent	High
Quartz Lake(s)	250-1,000	Stable	Substantial, non-imminent	At
Clearwater River/Lake	250-1,000	Declining	Moderate, imminent	At
Cyclone Lake	1-50	Very Rapid Decline	Moderate, non-imminent	High
Doctor lake	50-250	Unknown	Slightly	Potential
Flathead Lake	1,000-2,500	Declining	Substantial, imminent	At
Frozen Lake	50-250	Unknown	Slightly	Potential
Harrison Lake	1-50	Unknown	Moderate, imminent	High
Holland Lake	50-250	Rapidly declining	Substantial, non-imminent	High
Hungry Horse Reservoir	2,500-10,000	Increasing	Widespread, low-severity	Potential
Isabel Lake	250-1,000	Unknown	Unthreatened	Potential
Kintla Lake	1-50	Severely declining	Substantial, imminent	High
Lake McDonald	1-50	Severely declining	Substantial, imminent	High
Lincoln Lake	50-250	Unknown	Moderate, imminent	High
Lindbergh Lake	50-250	Unknown	Substantial, non-imminent	At
Logging Lake	50-250	Severely declining	Substantial, imminent	High
Lower Flathead River	50-250	Unknown	Moderate, imminent	High
Lower Quartz Lake	50-250	Unknown	Substantial, imminent	High
Swan Lake	1,000-2,500	Stable	Moderate, imminent	At
Trout Lake	250-2,500	Unknown	Slightly	Potential
Upper Kintla Lake	250-1,000	Unknown	Unthreatened	Potential
Upper Stillwater Lake	50-250	Unknown	Substantial, imminent	High
Upper Whitefish Lake	1-50	Unknown	Substantial, imminent	High
Whitefish Lake	1-50	Unknown	Substantial, imminent	High

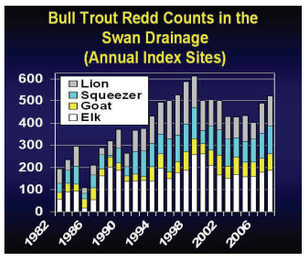
Subbasin: Flathead

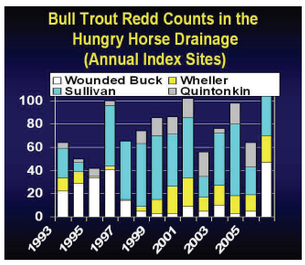
Bull Trout











ESA Listing: Threatened
Core Populations: Akokala Lake, Arrow Lake, Big Salmon Lake, Bowman Lake, Quartz Lakes, Clearwater River and lakes, Cyclone Lake, Doctor Lake, Flathead Lake, Frozen Lake, Harrison Lake, Holland Lake, Hungry Horse Reservoir, Isabel lakes, Kintla Lake, Lake McDonald, Lincoln Lake, Lindbergh Lake, Logging Lake, Lower Flathear River, Lower Quartz Lake, Swan Lake, Trout Lake, Upper Kintla Lake, Upper Stillwater Lake, Upper Whitefish Lake (Within Clark Fork Recovery Unit)
Draft Recovery Plan Criteria: Each core area supports at least 5 local populations with 100 or more adults each and contains 1,000 or more adults in total [7,10]
(*biologists suggest the minimum number of populations should be greater)*
Status:

Flathead Lake Core
North Fork
Big Creek—40 redds (2007)[11]
Hallowat Creek—19 redds (2007)[11]
Coal Creek—4 redds (2007)[11]
South Fork Coal Creek—3 redds (2007)[11]
Whale Creek—27 redds (2007)[11]
Trail Creek—51 redds (2007)[11]
North Fork Flathead River—35 redds (2007)[11]
Middle Fork
Morrison Creek— 21 redds (2007)[11]
Granite Creek—14 redds (2007)[11]
Lodgepole Creek—17 redds (2007)[11]
Ole Creek—29 redds (2007)[11]

Upper Stillwater Lake Core
Stillwater River— 28 redds (2007)[11]
Fitzsimmons Creek—6 redds (2007)[11]

Swan Lake Core
Elk Creek—187 redds (2007)[11]
Goat Creek—75 redds (2007)[11]
Squeezer Creek—123 redds (2007)[11]
Lion Creek—136 redds (2007)[11]
Cold Creek—7 redds (2007)[11]
Jim Creek—68 redds (2007)[11]
Piper Creek—16 redds (2007)[11]
Soup Creek—11 redds (2007)[11]
Woodward Creek—104 redds (2007)[11]
South Woodward Creek—10 redds (2007)[11]
South Fork Lost Creek—25 redds (2007)[11]
North Fork Lost Creek—11 redds (2007)[11]

Hungry Horse Reservoir Core
Wounded Buck Creek—40 redds (2007)[11]
Wheeler Creek—27 redds (2007)[11]
Sullivan Creek—56 redds (2006)[12]
Quintonkin Creek—20 redds (2007)[11]
Youngs Creek—132 redds (2006)[12]
White River—90 redds (2006)[12]
Gordon Creek—142 redds (2006)[12]
Little Salmon Creek—50 redds (2006)[12]

Whitefish Lake Core
Swift Creek—7 redds (2007)[11]

Upper Whitefish Lake Core
West Fork—9 redds (2007)[11]

Lindbergh Lake Core
Swan River—3 redds (2007)[11]

Holland Lake Core
Holland Creek—13 redds (2007)[11]

Bowman Lake Core
Bowman Creek—1 redd (2007)[11]

Logging Lake Core
Logging Creek—0 redds (2007)[11]

Cyclone Lake Core
Cyclone Creek—5 redds (2007)[11]

Quartz Lake Core
Quartz Creek—16 redds (2007)[11]

Harrison Lake Core
Harrison Creek—15 redds (2007)[11]

Big Salmon Lake Core
Big Salmon—53 redds (2006)[12]

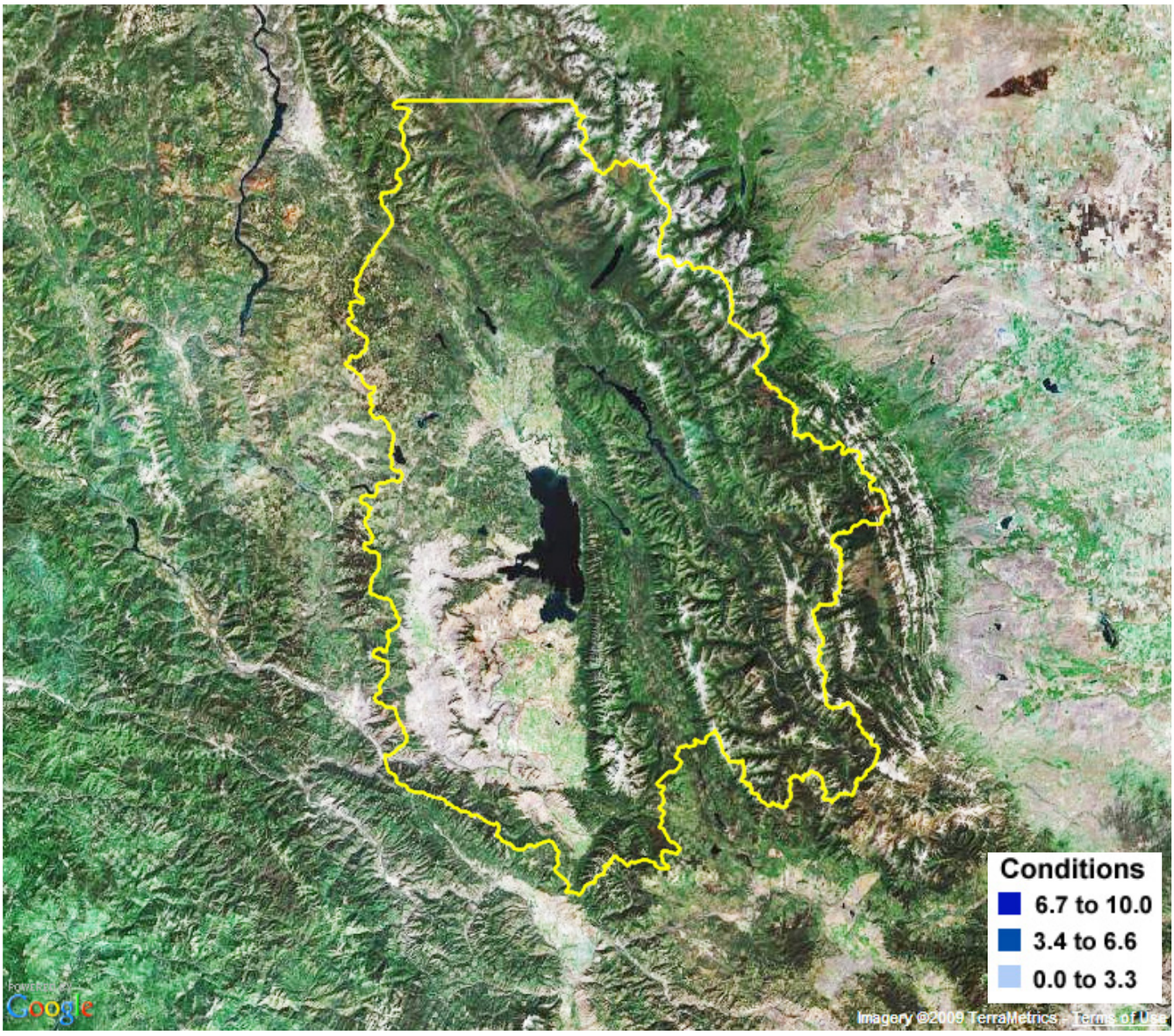
BPA-Funded Wildlife Projects in the Flathead Subbasin[6]

Project	Sponsor	Acres	HU	Habitat Type
Secure and Restore Fish and Wildlife Habitat	Salish and Kootenai Confederated Tribes	NA	NA	NA
Weaver /McWinegar Slough	Flathead Land Trust	NA	NA	NA

2007 Hatchery Releases in the Subbasin[13]

Hatchery/Acclimation Pond	Species	Release Goal/Released
Total		

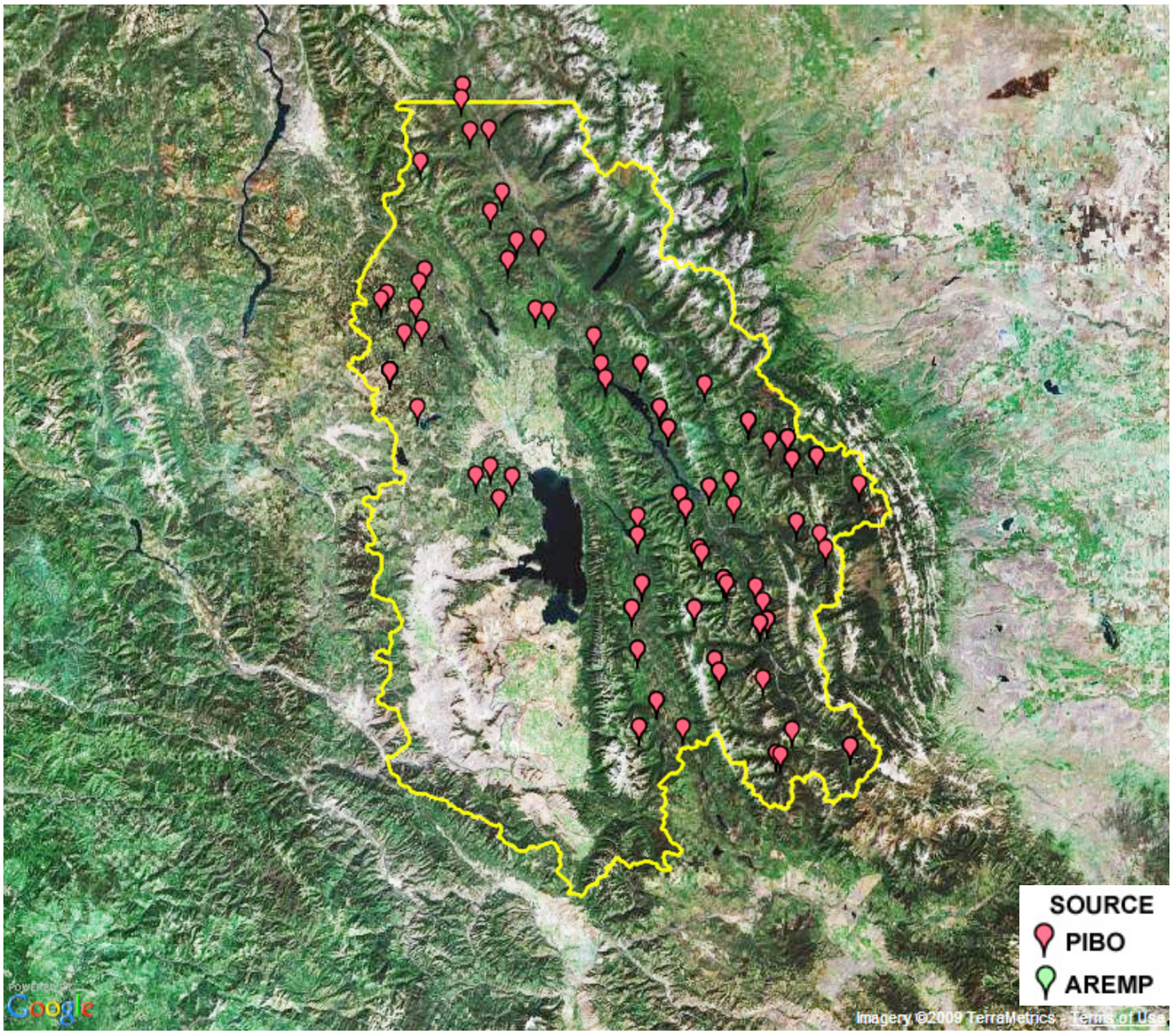
Watershed Conditions for National Forest and Bureau of Land Management Lands in the Flathead Subbasin



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: Flathead

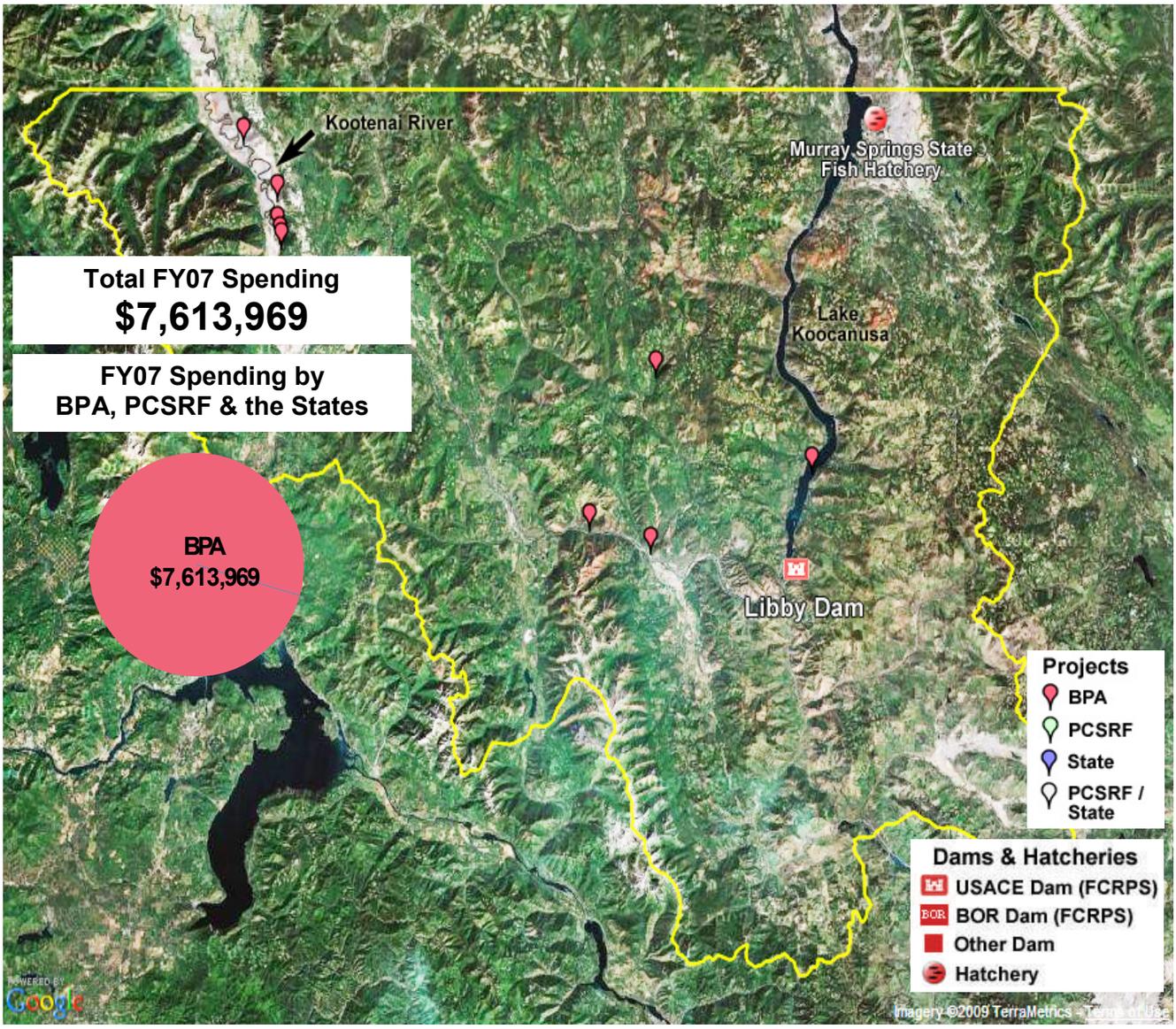
Stream Inventory Sites on National Forest and Bureau of Land Management Lands in the Flathead Subbasin



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).

Red Symbol—Indicates locations where stream inventory information is collected by the USDA Forest Service and USDI Bureau and Land Management through the PacFish/InFish Biological Opinion Monitoring Program (PIBO). The locations and information reported are for the sentinel and integrator sites used to track habitat status and trend within the PIBO area over time.[8]

Mountain Columbia



In the Kootenai Subbasin, bull trout, westslope cutthroat trout, kokanee, burbot, redband trout, and white sturgeon have been identified as focal species. Bull trout are listed as threatened under the federal Endangered Species Act and the Kootenai population of white sturgeon is listed and endangered. Westslope cutthroat trout have been petitioned for listing on multiple occasions. The four bull trout cores found in the subbasin are part of Kootenai River Recovery Unit. Draft Recovery criteria for bull trout vary among recovery units and core areas. Although not listed, the burbot population in the Kootenai River will likely be extinct within a decade.

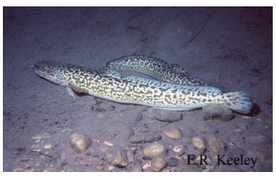
Subbasin: Kootenai

Key Factors Limiting Kootenai Subbasin Focal Species[14]							
Factors for Decline/Limiting Factors/ Threats		**Species and Life-Stage Most Affected**					
		Bull Trout	**Redband Trout**	**Burbot**	**Westslope Cut-throat Trout**	**White Sturgeon**	**Kokanee**
Habitat	Floodplain Connectivity and Function	All life stages	All life stages		All life stages	All life stages	
	Channel Structure and Complexity	Al l life stages	Al l life stages		Al l life stages	Juveniles, subadults, adults	
	Riparian Areas and LWD Recruitment	All life stages	All life stages		All life stages		
	Stream Flow	All life stages	All life stages	All life stages	All life stages	Juveniles, subadults, adults	
	Water Quality	All life stages	All life stages	All life stages	All life stages		All life sages
	Fish Passage	All life stages	All life stages		All life stages		All life stages
Hydro	Mainstem Columbia River Hydropower-related Adverse Effects	Juveniles, subadults, adults	Juveniles, subadults, adults	All life stages	Juveniles, subadults, adults	Embryo	Fry
Harvest	Mortality from Illegal Harvest	Adults			Adults		
Predation/ Competition/ Disease	Predation by or competition with non-native species	All life stages	All life stages		All life stages		
	Predation by native fish					Eggs and embryos	
Hatchery	Hatchery Fish Interbreeding With Wild Fish		Adults		Adults		

BPA FY 2008 Habitat Project Accomplishments in the Kootenai Subbasin[1]			
Habitat Zone	**Project-type**	**Planned Value**	**FY 2008 Accomplishment (Actual Value)**
Unspecified	Develop terrestrial habitat features	10 features	10 features developed
	Land purchase	24 habitat units	24 habitat units protected
Riparian-Upland	Plant/remove vegetation, create, restore, and/or enhance wetland	744.6 acres	744.6 acres treatd
	Land purchase	22 acres	22 acres protected
Riparian	Plant vegetation	8.25 miles	8.25 miles protected

Mountain Columbia

Burbot

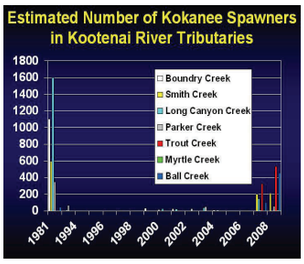


ESA Listing Status: None
Biological Objective: Achieve a minimum number of 2,500 adults by 2020 in the Kootenai River downstream from Libby Dam[14]
Status: 3adults collected (2008)[15]

Westslope Cutthroat Trout

ESA Listing Status: Species of Concern
Biological Objective: Five genetically pure conservation populations with 50 adults in each of the subpopulations in Lake Koocanusa, Kootenai River, and Kootenay Lake with each conservation population containing at least 500 adults[14]
Status: 0.024 fish/m^2 in drainage (2006)[16]

Kokanee

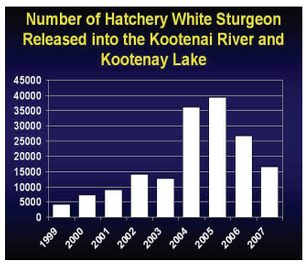


ESA Listing Status: None
Biological Objective: Greater than 50 adults spawning in each tributary by 2007, greater than 100 adults by 2020, and greater than 250 adults spawning in 2030 (for Lower Kootenai River, reservoirs, and tributaries)[14]
Status:
Boundry Creek— 0 adults(2008)[17]
Smith Creek— 215 adults (2008)[17]
Long Canyon Creek— 0 adults (2008)[17]
Parker Creek— 62 adults (2008)[17]
Trout Creek— 535 adults (2008)[17]
Myrtle Creek— 9 adults (2008)[17]
Ball Creek— 455 (2008)[17]

Redband Trout

ESA Listing Status: Species of Concern
Biological Objective: Two genetically pure conservation populations (Yaak (above Yaak Falls) and the Kootenai) each containing at least 250 adults. Subpopulations should contain at least 50 adults.[14]
Status: 0.018 fish/m^2 in the drainage (2006)[16]

White Sturgeon



ESA Listing Status: Endangered
Biological Objective: Natural reproduction in at least 3 different years over a 10-year period with 20 individuals from each of the three years reaching more than 1 year of age in all regulated mainstem reaches of the Kootenai River downstream from Kootenai Falls.[1] Hatchery-reared year classes (equivalent of 1,000 one-year old fish from each of 6-12 families) large enough to produce 24-120 fish surviving to sexual maturity)[14]
Status: 2006 year class— 16,572 hatchery-reared fish released in (2007)[3]

210 and 4 juvenile hatchery and wild white sturgeon, respectively, captured (each of the wild sturgeon were from different age classes) (2006)[18]

2007 Hatchery Releases in the Subbasin

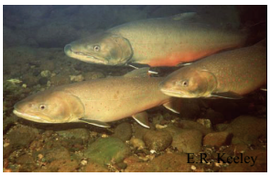
Hatchery/Acclimation Pond	Species	Released
Kootenai Tribal Sturgeon Hatchery	White Sturgeon	16,572 (current space and staffing constraints continue to limit the number of fish that can be spawned in any given year)
Total		16,572

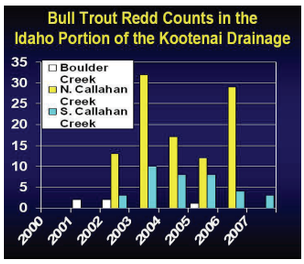
BPA-Funded Wildlife Projects in the Flathead Subbasin

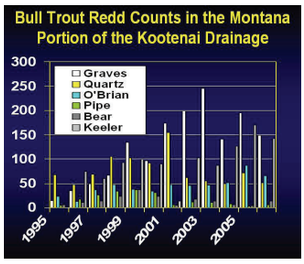
There are no wildlife projects in this subbasin

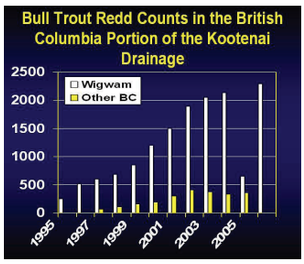
Subbasin: Kootenai

Bull Trout









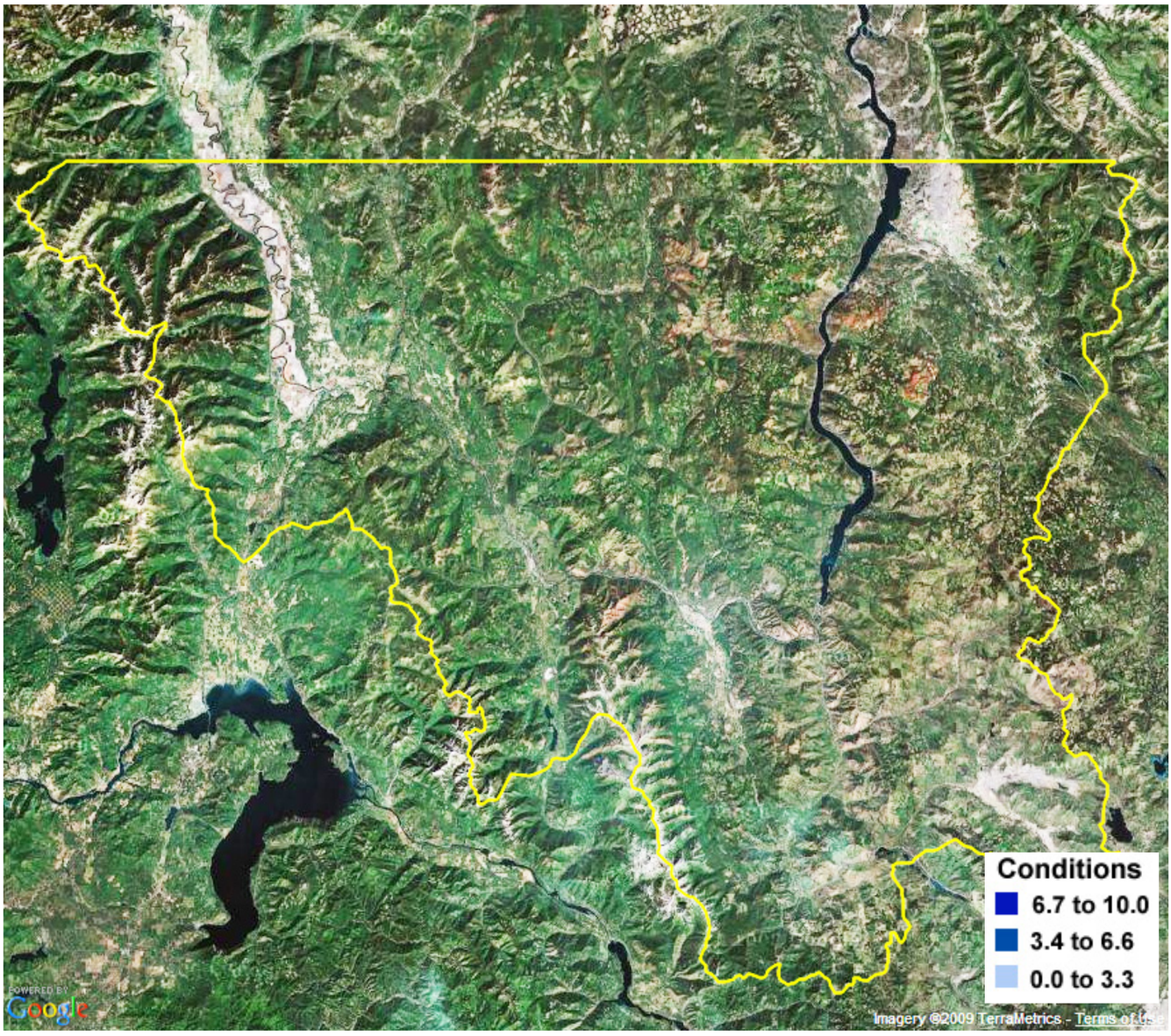
ESA Listing Status: Threatened
Core Population: Lake Koocanusa, Kootenai River River, Sophie Lake, and Bull Lake (within the Kootenai River Recovery Unit)
Draft Recovery Plan Criteria: Koocanusa Reservoir and Kootenai River/Kootenay Lake host 5 local populations (including British Columbia) with 100 individuals each and each core area contains at least 1,000 adults, Bull and Sophie lakes each support at least 1 local population containing 100 or more adults[6]
Status:
Idaho (annual index sites)
Boulder Creek—0 redds (2006)[19]
North Callahan Creek— 0 redds (2007)[20]
South Callahan Creek— 3 redds(2007)[20]

Montana (annual index sites)
Grave Creek— 166 redds (2007)[20]
Blue Sky— 0 redds (2007)[20]
Clarence Creek— 42 redds (2007)[20]
Quartz Creek— 20 redds (2007)[20]
West Fork Quartz Creek— 15 redds (2007)[20]
O'Brian Creek—77 redds (2007)[20]
Pipe Creek— 0 redds (2007)[20]
Bear Creek— 9 redds (2007)[20]
Keeler Creek— 50 redds (2007)[20]
North Fork Keeler— 30 redds (2007)[20]
South Fork Keller— 4 redds (2007)[20]
West Fisher— 18 redds (2007)[20]

British Columbia (annual index sites)
Wigwam (B.C. and U.S.) —2,298 redds (2006)[12]
Skookumchuck—111 redds (2005)[21]
White River—243 redds (2005)[21]

Abundance, Trend, Threat, and Risk Ranks (Lake Koocanusa Core)[6]
Abundance = 10,000-100,000
Short-term Trend = Increasing
Threat = Widespread, low-severity
Risk = Low
Abundance, Trend, Threat, and Risk Ranks (Kootenai River Core)[6]
Abundance = 250-1,000
Short-term Trend = Stable
Threat = Moderate, imminent
Risk = At
Abundance, Trend, Threat, and Risk Ranks (Sophie Lake Core)[6]
Abundance = 1-50
Short-term Trend = Unknown
Threat = Substantial, imminent
Risk = High
Abundance, Trend, Threat, and Risk Ranks (Bull Lake Core)[6]
Abundance = 250-1,000
Short-term Trend = Stable
Threat =Moderate, non-imminent
Risk = At

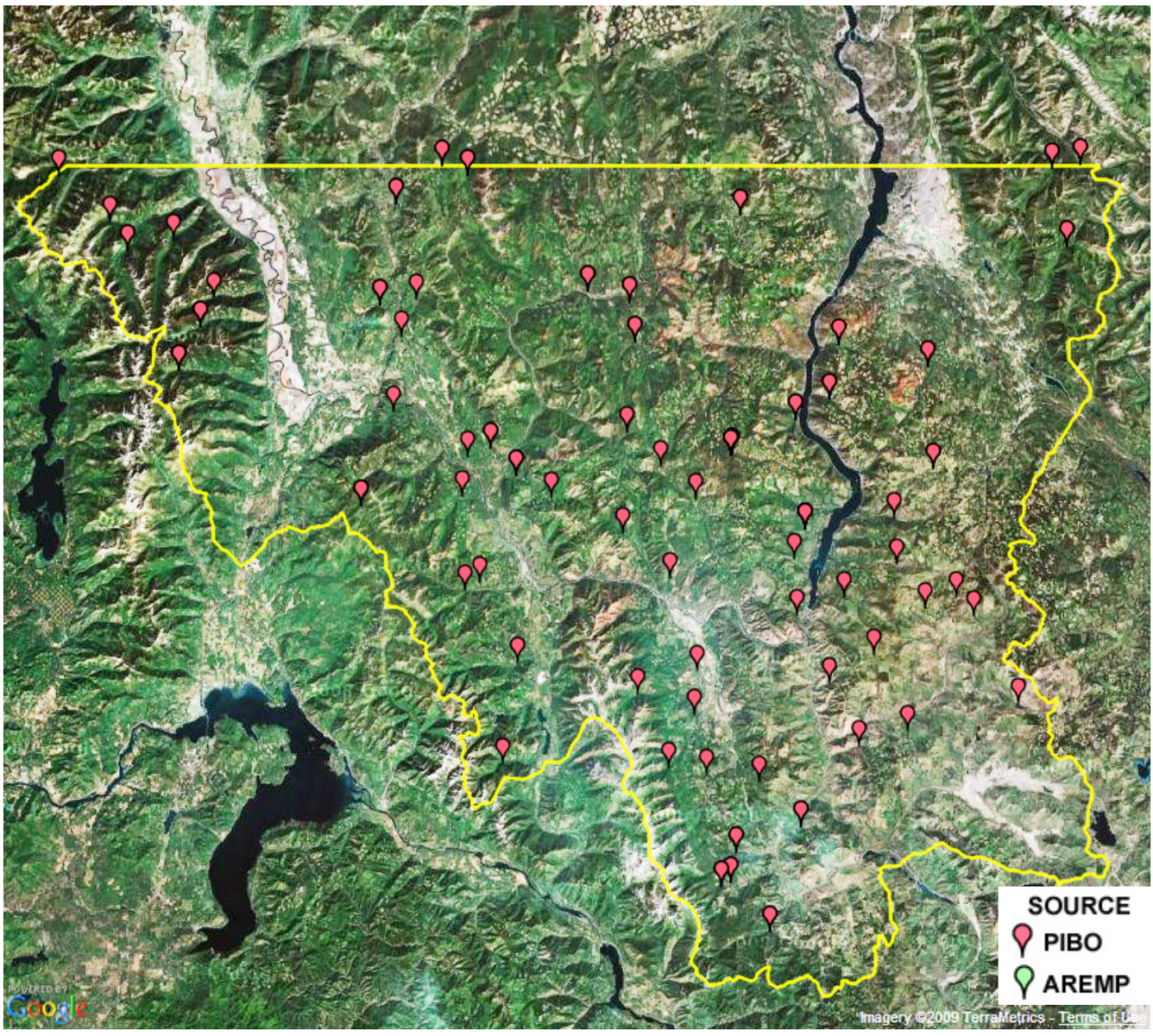
Watershed Conditions for National Forest and Bureau of Land Management Lands in the Kootenai Subbasin



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: Kootenai

Stream Inventory Sites on National Forest and Bureau of Land Management Lands in the Kootenai 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).

Red Symbol—Indicates locations where stream inventory information is collected by the USDA Forest Service and USDI Bureau and Land Management through the PacFish/InFish Biological Opinion Monitoring Program (PIBO). The locations and information reported are for the sentinel and integrator sites used to track habitat status and trend within the PIBO area over time.[8]