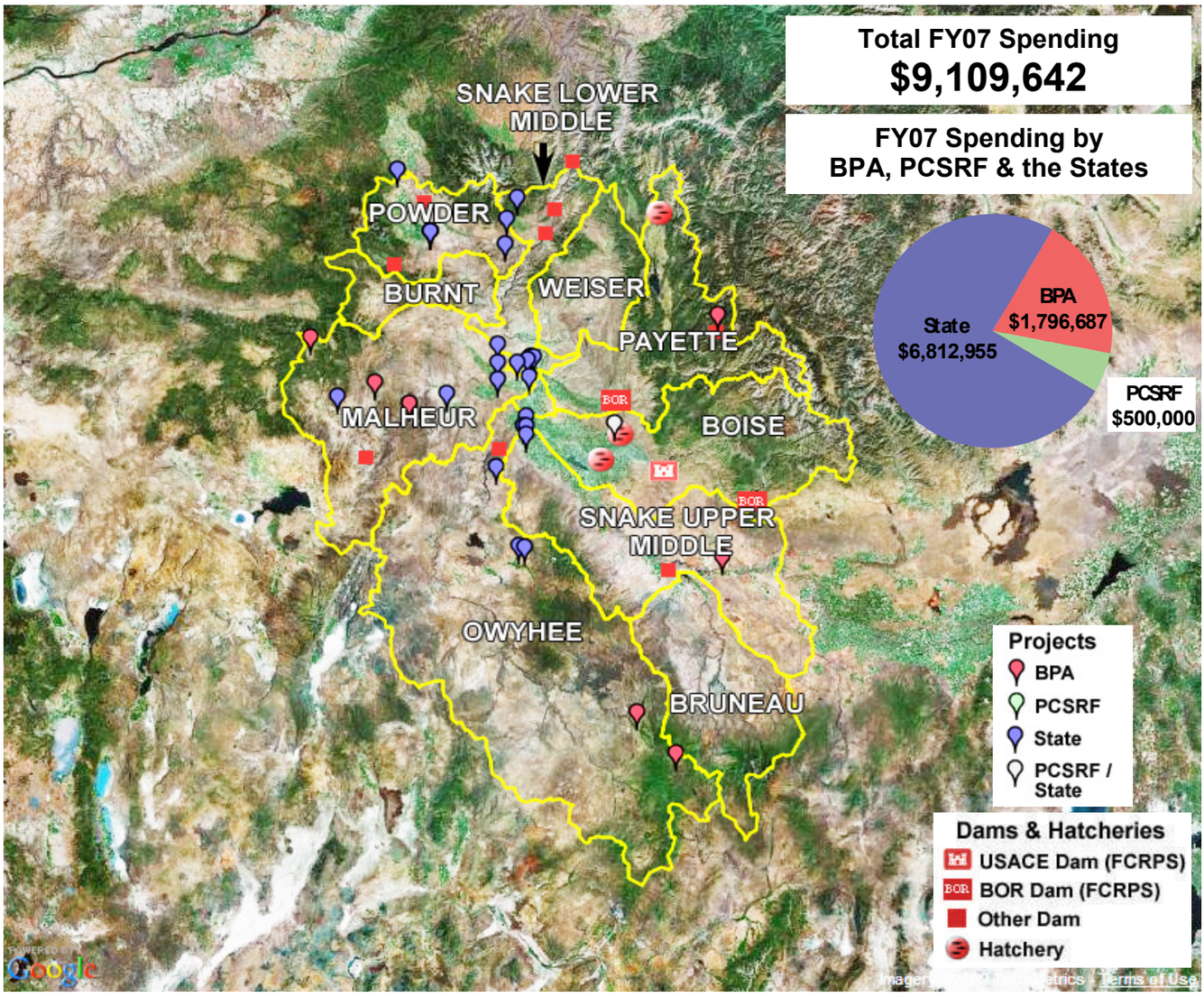
Middle Snake



The Middle Snake Province, located in eastern Oregon, central and southwestern Idaho, and extending into Nevada, encompasses an area of 36,884 square miles. The Province includes the Snake River and all tributaries from Hells Canyon Dam to Shoshone Falls. Subbasins in the Middle Snake Province include the Boise, Bruneau, Burnt, Malheur, Owyhee, Payette, Powder, Snake Lower Middle, Snake Upper Middle, and Weiser. Bull trout populations throughout the province are listed under the federal Endangered Species Act. Lands in this province are under intensive land-use practices, including cultivated agriculture, intensive range and timber management, urban development, dryland and irrigated agriculture, forest and rangeland resource extraction, and recreational use. 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.

Land Ownership
Federal……....65%
Private…….34%
Tribal……...1%

BPA FY 2008 Habitat Project Accomplishments in the Middle Snake Province[1]			
Habitat Zone	**Project-type**	**Planned Value**	**FY 2008 Accomplishment (Actual Value)**
Riparian-Upland	Plant vegetation, create, restore, and/or enhance wetlands, conduct controlled burns	708 acres	469 acres improved
Riparian	Plant vegetation	7 miles	7 miles vegetation improved

Habitat Improvement Project

Middle Snake

Focal Species in the Middle Snake Province[a]

Focal Species	Boise, Payette, Weiser	Bruneau	Burnt	Malheur	Owyhee	Powder	Snake Middle
Banbury Springs Lanx							
Bull Trout							
Brueneau Hot Springsnail							
Chinook				Extir-pated			
Idaho Springsnail							
Kokanee							
Mountain Whitefish							
Redband Trout							
Snake River Physa Snail							
Utah Valvata Snail							
White Stur-geon							
Wood River Sculpin							

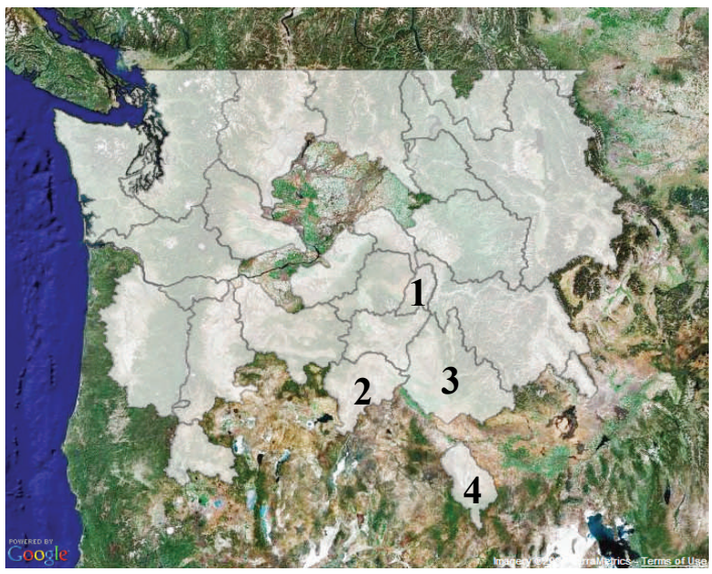
Not a focal species | Not listed | Species of Concern | Threatened | Endangered

[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 and Returns to Hatcheries in the Middle Snake Province

Species	Release Goal/ Released	Return Goal/Return to Collection Facility
TOTAL		

Bull Trout Status in the Middle Snake Province



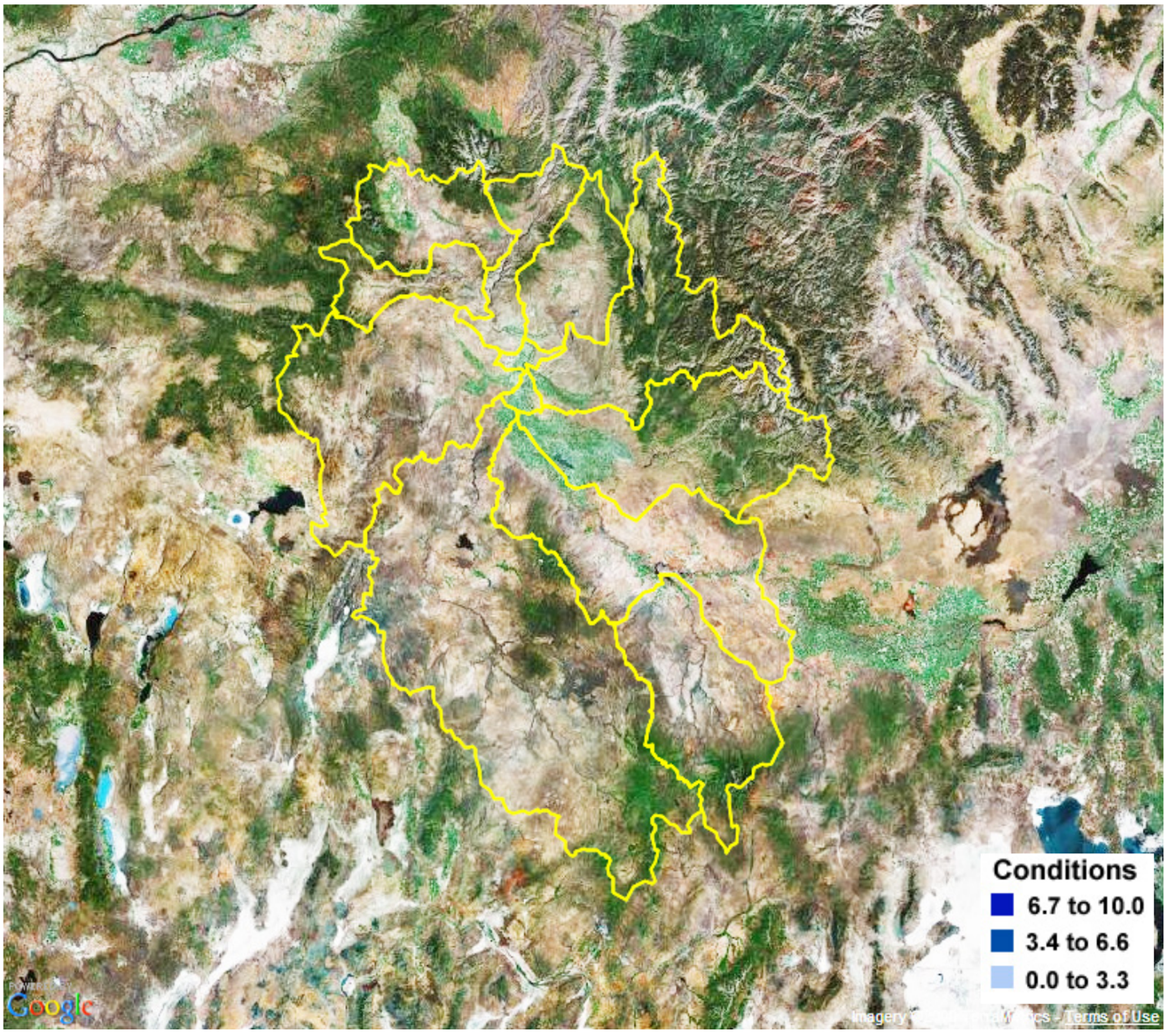
Recovery Unit	Number of cores	Abundance	Trend	Threat	Risk
Hells Canyon Complex (1)	2	500-2,000	Very rapid decline (2)	Substantial, imminent (2)	High (2)
Malheur River (2)	1	50-250	Declining	Substantial, imminent	High
Southwest Idaho (3)	9	877-3,720	Unknown (6) Declining (1) Very rapid decline (1) Rapidly declining (1)	Substantial, imminent (7) Moderate, imminent (2)	At (4) High (5)
Jarbidge (4)	1	50-250	Unknown	Substantial, imminent	High

Wildlife Habitat Losses by Hydroelectric Facility in the Middle Snake Province

Dam	HU Lost	HU Credited in 2008	HU Credited (Gained)
Anderson Ranch	9,619		0
Black Canyon	2,170		75

Middle Snake

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



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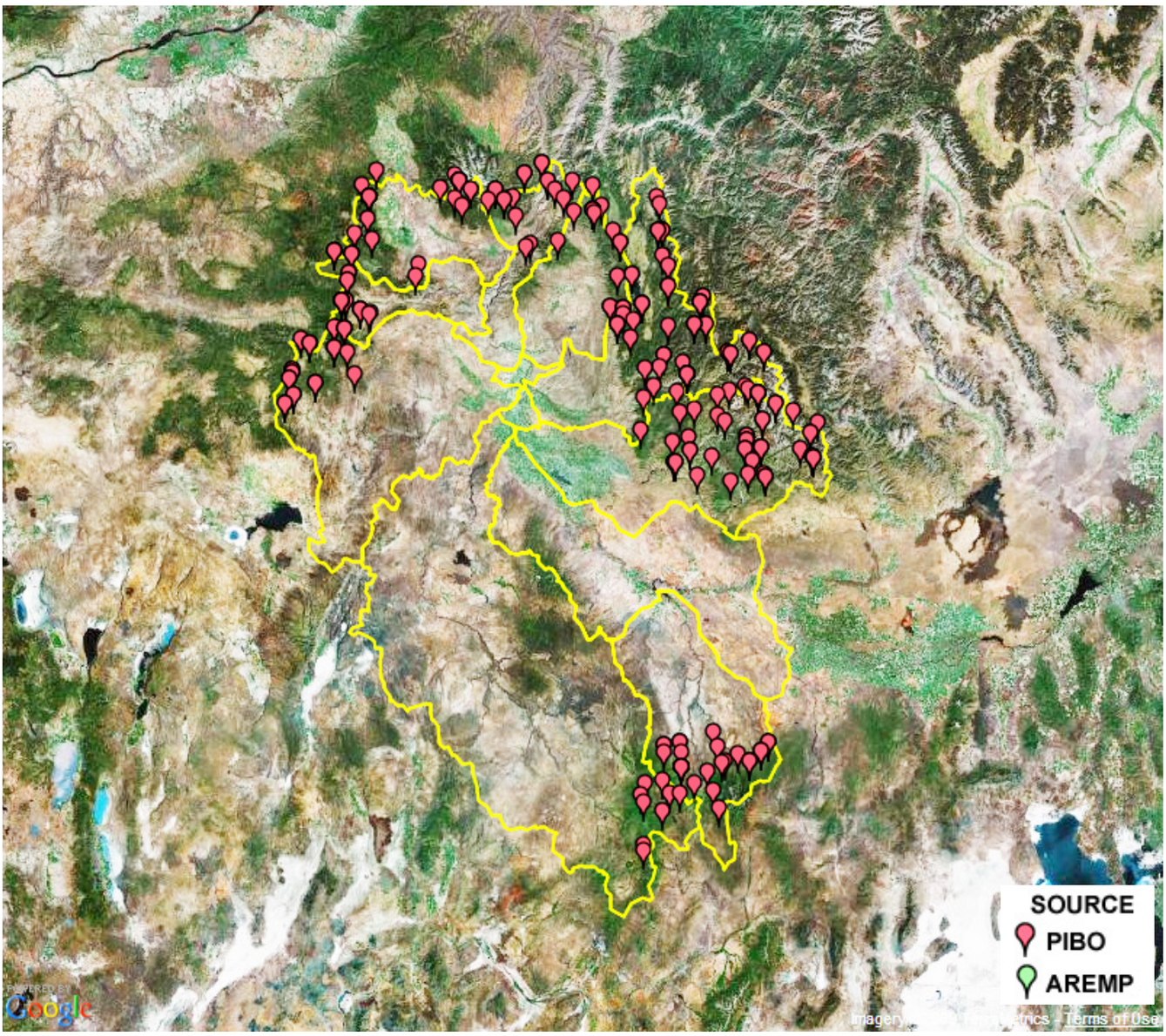
Stream Inventory Sites on National Forest and Bureau of Land Management Lands in the Middle Snake Province



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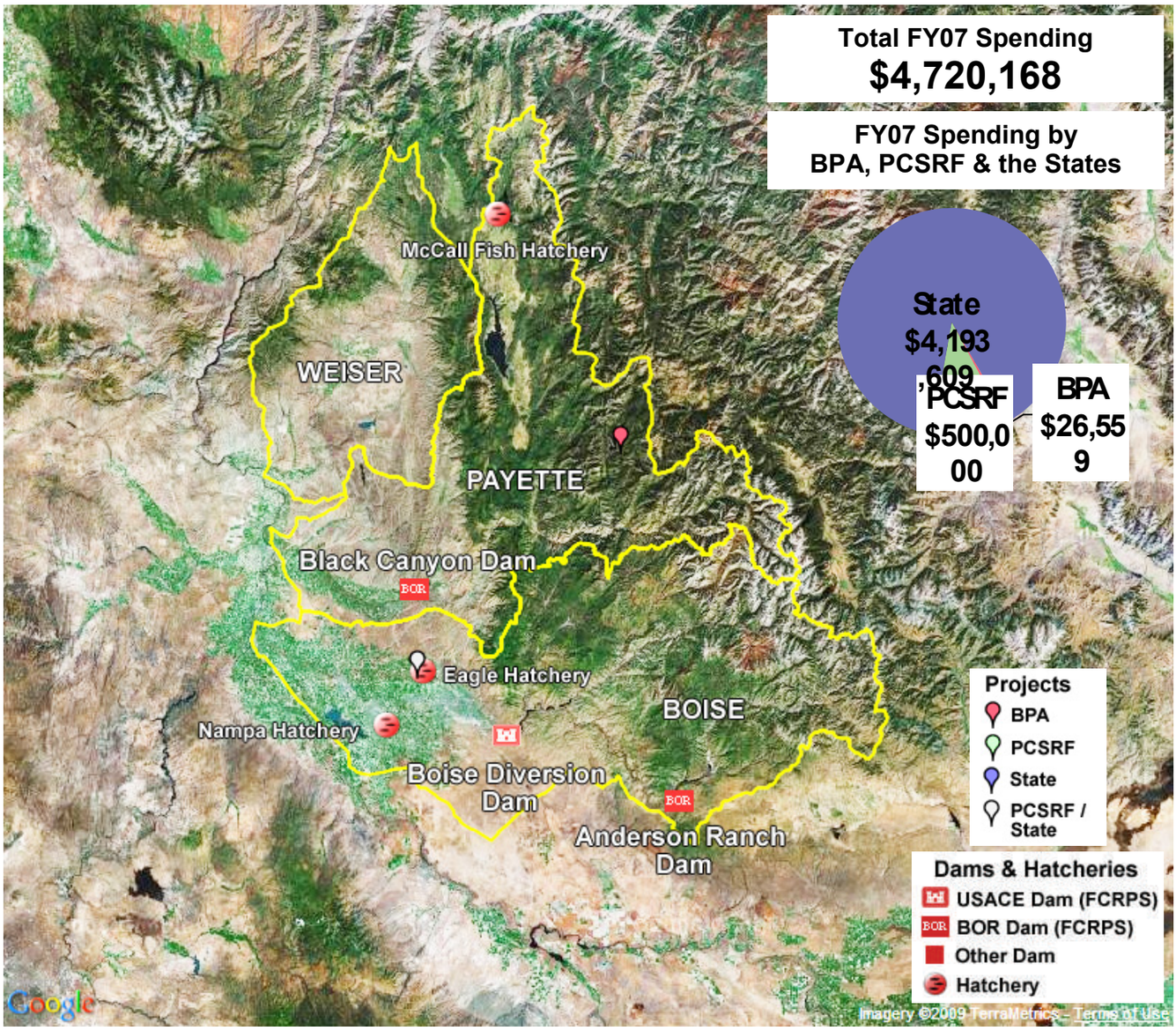
Middle Snake



In the Boise, Payette, Weiser Subbasin, kokanee, bull trout, and redband trout have been identified as focal species. Bull trout are listed as threatened under the federal Endangered Species Act. The nine bull trout cores present in the subbasin are all within the Southwest Idaho Recovery Unit. Draft Recovery criteria for bull trout vary among recovery units and core areas. Although kokanee were native to Payette Lake, its current population as well as other populations throughout the subbasin are a result of hatchery introductions and subsequent. Kokanee populations in Payette Lake and Deadwood Reservoir are naturally reproducing..

Subbasin: Boise, Payette, Weiser

Key Factors Limiting Boise, Payette, and Weiser Subbasin Focal Species[1,2,3]				
Factors for Decline/Limiting Factors/Threats		**Species/Race, and Life-Stage Most Affected**		
		Kokanee	**Bull Trout**	**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
Hydro	Hydropower Operation Effects		Juveniles, adults	Juveniles, adults
	Passage		Juveniles, adults	Juveniles, adults
Hatchery	Hatchery Fish Interbreeding With Wild Fish			Adults
Introduced Species	Competition with Introduced Species		Juveniles, adults	Juveniles, adults
	Hybridization with Introduced Species		Adults	

BPA FY 2008 Habitat Project Accomplishments in the Boise, Payette, Weiser Subbasin
There are no BPA-funded habitat improvement efforts in this subbasin.

Middle Snake

Kokanee

ESA Listing Status: None
Biological Objectives: None.
Status: Not available

Redband/Rainbow Trout

ESA Listing Status: Species of Concern
Biological Objective: None
Status: Stream order and density estimates (fish/m^2)

Boise River
1– 0.114
2– 0.026
3– 0.012
5– 0.056
6– 0.001

Payette River
1– 0.062
2– 0.076
3– 0.046
4– 0.006

Weiser River
1– 0.104
2– 0.120
3- 0. 070

2007 Hatchery Releases and Returns to Hatcheries in the Boise, Payette, Weiser Subbasin

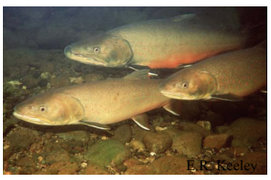
Hatchery/Acclimation Pond	Species	Release Goal/Released	Return Goal/Actual Return
McCall			
Eagle			
Nampa			
Oxbow			
Total			

BPA-Funded Wildlife Projects in the Boise, Payette, Weiser Subbasin

Project	Sponsor	Acres	HU	Habitat Type
Southern Idaho Wildlife Mitigation-Middle Snake	Idaho Department of Fish and Game	NA	NA	NA
Southern Idaho Wildlife Mitigation—Shoshone-Paiute Tribes	Shoshone-Paiute Tribes	NA	NA	NA

Subbasin: Boise, Payette, Weiser

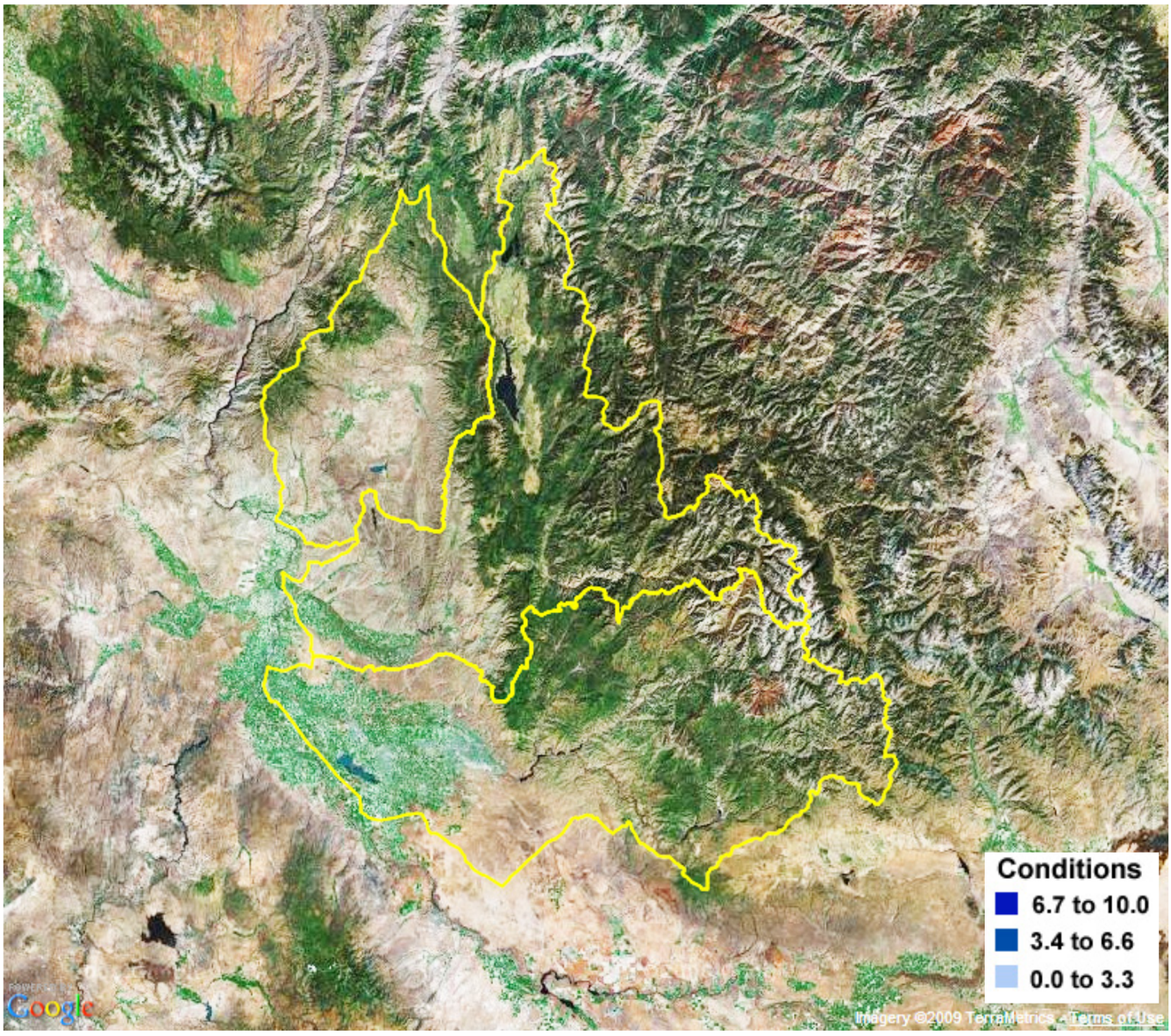
Bull Trout



ESA Listing Status: Threatened
Core Population: Arrowrock, Anderson Ranch, and Lucky Peak (Within the Boise River Subunit); North Fork Payette, Upper South Fork Payette, Deadwood river, and Squaw Creek (Within the Payette River Subunit); Weiser River (Within the Weiser River Subunit) (All within the Southwest Idaho Recovery Unit)
Draft Recovery Plan Criteria: 500 adults in local populations[1,2]
Status: Abundance estimates (all age groups)
Southwest Idaho Recovery Unit
143,356 fish (±95% CI = 64,750)[3]
Boise River Subunit
Arrowrock—53,028 fish (±95% CI = 25,725)[3]
Anderson Ranch—10,412 fish (±95% CI = 6,504)[3]
Lucky Peak—NA[3]
Payette River Subunit
Deadwood River—4,007 fish (±95% CI = 4,518)[3]
Squaw Creek—17,251 fish (±95% CI = 27,689)[3]
Upper South Fork Payette River—21,303 fish (±95% CI = 13,113)[3]
Middle Fork Payette River—NA[3]
North Fork Payette River—NA[3]
Weiser River—NA[3]
Abundance, Trend, Threat, and Risk Ranks (Anderson Ranch Core):
Abundance = 250-1,000
Short-term Trend = Unknown
Threat = Substantial, imminent
Risk = At
Abundance, Trend, Threat, and Risk Ranks (Arrowrock Reservoir Core):
Abundance = Unknown
Short-term Trend = Declining
Threat = Moderate, imminent
Risk = At
Abundance, Trend, Threat, and Risk Ranks (Deadwood River Core):
Abundance = 250-1,000
Short-term Trend = Unknown
Threat = Substantial, imminent
Risk = High
Abundance, Trend, Threat, and Risk Ranks (Lucky Peak Reservoir Core):
Abundance = 1-50
Short-term Trend = Unknown
Threat = Substantial, imminent
Risk = High
Abundance, Trend, Threat, and Risk Ranks (Middle Fork Payette River Core):
Abundance = Unknown
Short-term Trend = Unknown
Threat = Substantial, imminent
Risk = At
Abundance, Trend, Threat, and Risk Ranks (North Fork Payette River Core):
Abundance = 1-50
Short-term Trend = Very rapid decline
Threat = Substantial, imminent
Risk = High
Abundance, Trend, Threat, and Risk Ranks (Squaw Creek Core):
Abundance = 250-1,000
Short-term Trend = Unknown
Threat = Substantial, imminent
Risk = High
Abundance, Trend, Threat, and Risk Ranks (Upper South Fork Payette Core):
Abundance = Unknown
Short-term Trend = Unknown
Threat = Moderate, imminent
Risk = At
Abundance, Trend, Threat, and Risk Ranks (Weiser River Core):
Abundance = Unknown
Short-term Trend = Rapidly declining
Threat = Substantial, imminent
Risk = High

Middle Snake

Watershed Conditions for National Forest and Bureau of Land Management Lands in the Boise, Payette, Weiser Subbasin



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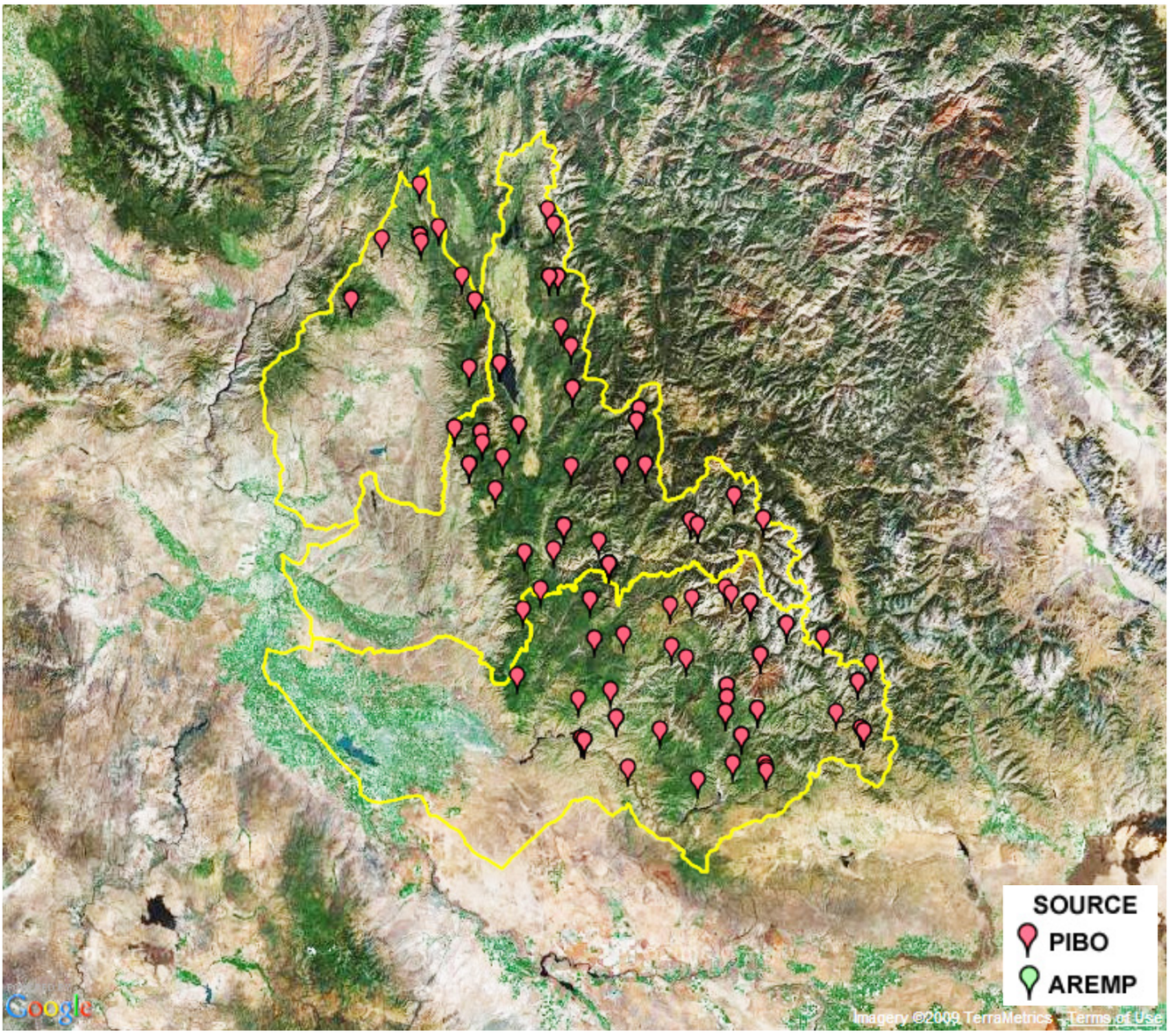
Subbasin: Boise, Payette, Weiser

Stream Inventory Sites on National Forest and Bureau of Land Management Lands in the Boise, Payette, Weiser Subbasin



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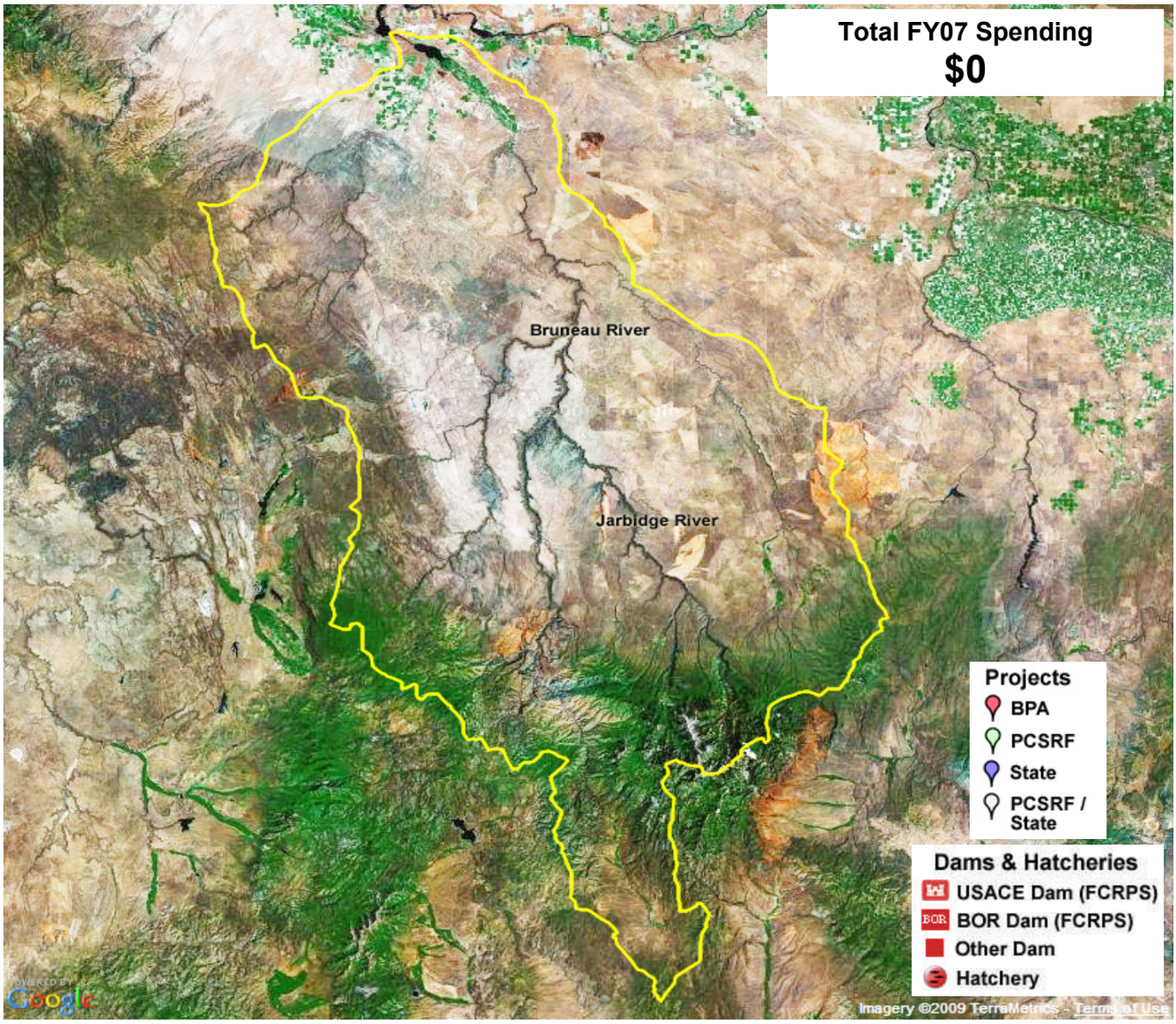
Middle Snake



In the Bruneau Subbasin, mountain whitefish, bull trout, and redband trout have been identified as focal species. Bull trout are listed as threatened under the federal Endangered Species Act. The one bull trout core present in the subbasin is within the Jarbdige Distinct Population Segment. Draft Recovery criteria for bull trout vary among recovery units and core areas. Redband trout are the most widely distributed salmonid in the subbasin and mountain whitefish are a culturally and ecologically important species.

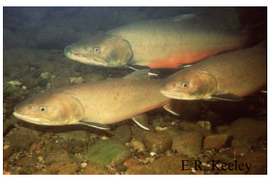
Subbasin: Bruneau

Key Factors Limiting Bruneau River Subbasin Focal Species[1,2,3]				
Factors for Decline/Limiting Factors/Threats		**Species/Race, and Life-Stage Most Affected**		
		Mountain Whitefish	**Bull Trout**	**Redband Trout**
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
Introduced Species	Competition with Introduced Species		Juveniles, adults	Juveniles, adults

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

Middle Snake

Bull Trout



ESA Listing Status: Threatened
Core Population: Jarbidge Distinct Population Segment
Biological Objective 270-1,000 adult spawning fish[1]
Status: 50-125 spawners[1]
Abundance, Trend, Threat, and Risk Ranks (Jarbidge River Core):
Abundance = 250-1,000
Short-term Trend = Unknown
Threat = Substantial, imminent
Risk = At

Redband Trout

ESA Listing Status: Species of Concern
Biological Objective: None
Status: Stream order and density estimates (fish/m^2)
Bruneau River
1– 0.381
2– 0.237
3– 0.162
4– 0.007

Mountain Whitefish

ESA Listing Status: None
Biological Objective: No numeric objective for adult abundance described in the subbasin plan.
Status: 8,664 fish (amendment)

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

BPA-Funded Wildlife Projects in the Bruneau Subbasin
There are no wildlife projects in this subbasin.

Subbasin: Bruneau

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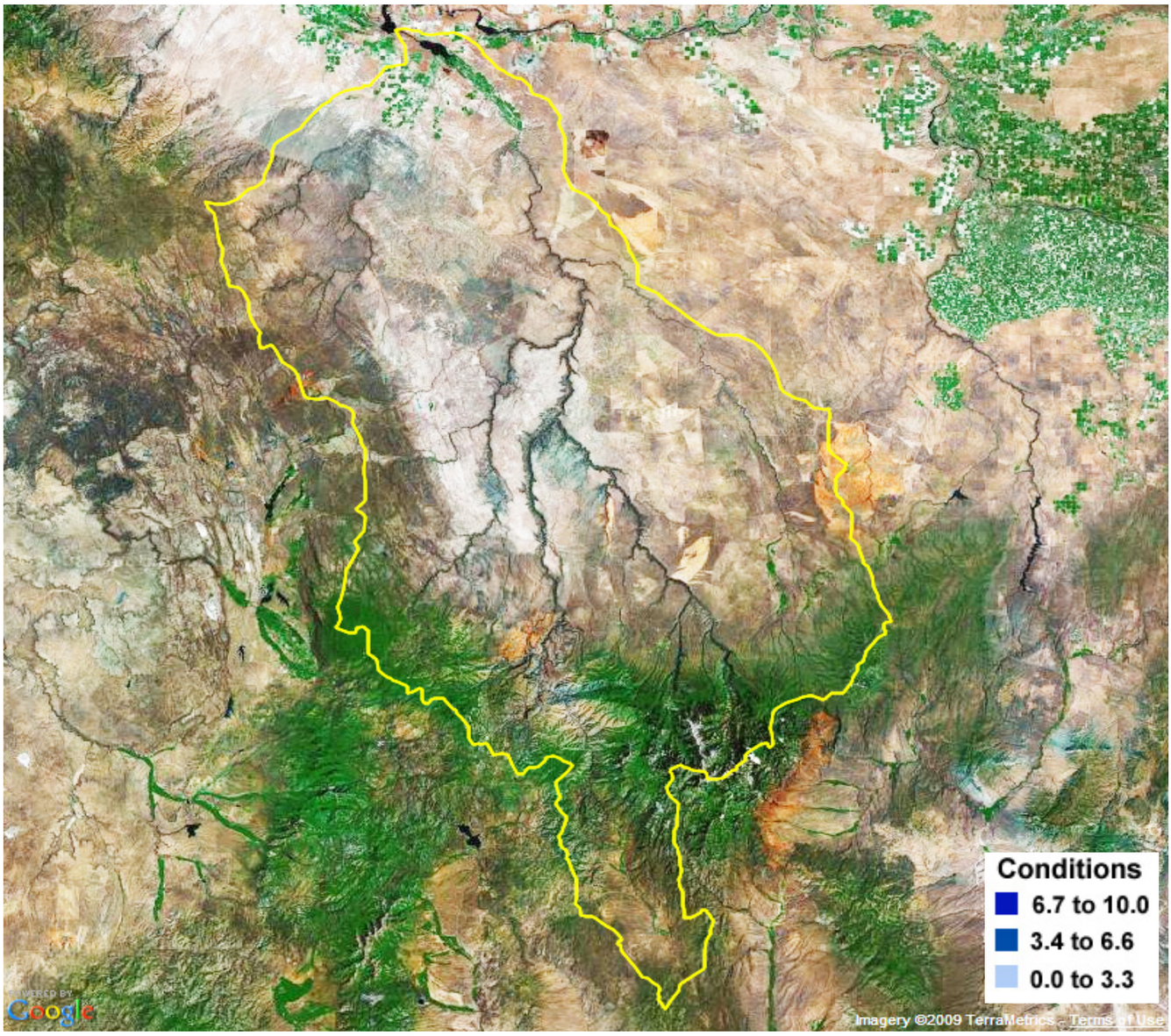
[1] United States Fish and Wildlife Service. 2004. Draft Recovery Plan for the Jarbidge River Distinct Population Segment of Bull Brout (*Salvelinus confluentus*). U.S. Fish and Wildlife Service, Portland, Oregon.
[2] Shoshone-Paiute Tribes and 9 co-authors. 2004. Bruneau Subbasin Plan. A Report Prepared for the Northwest Power and Conservation Council. Portland, Oregon.

Middle Snake

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



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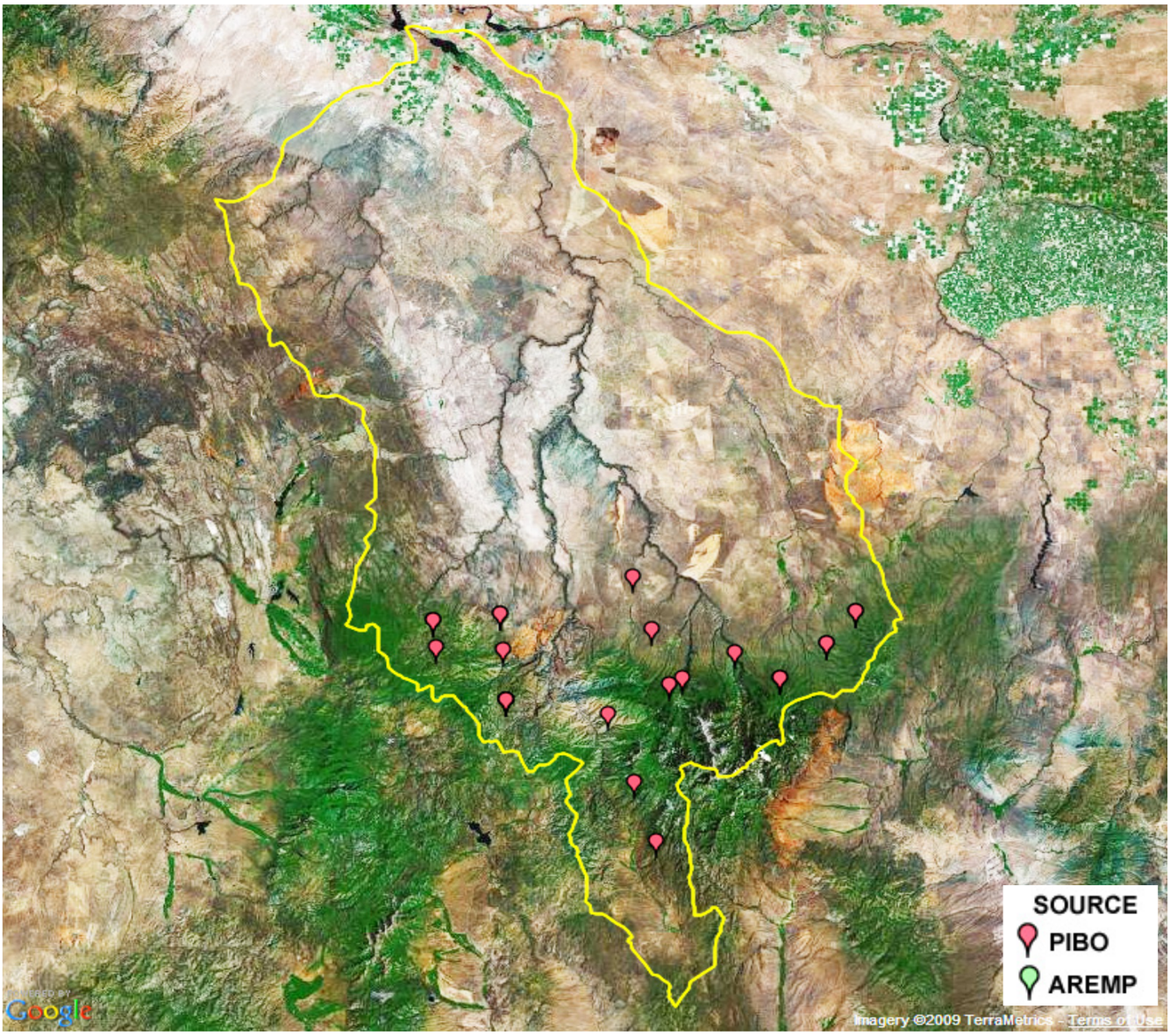
Subbasin: Bruneau

Stream Inventory Sites on National Forest and Bureau of Land Management Lands
Bruneau Subbasin



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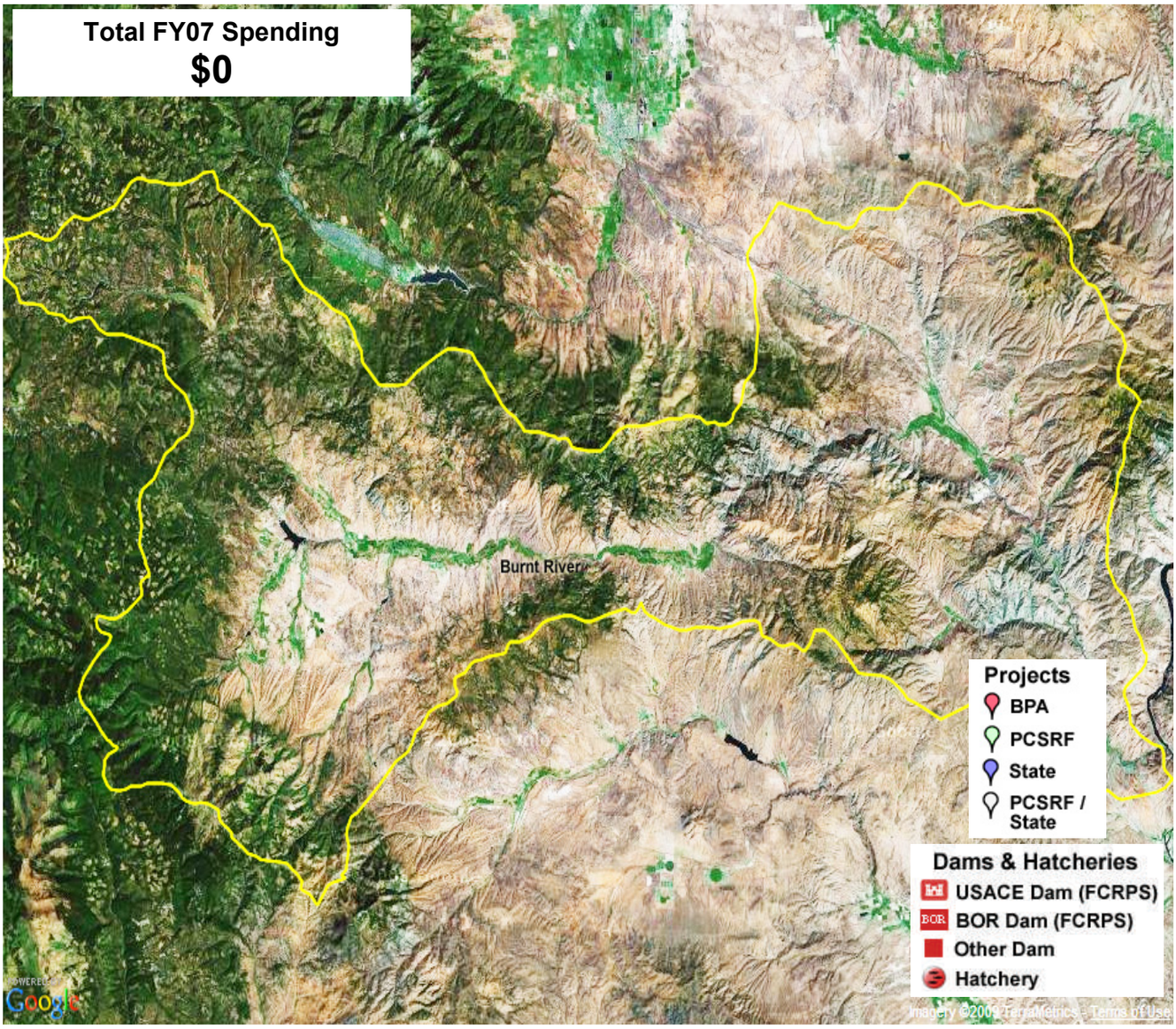
Middle Snake



In the Burnt Subbasin, redband trout has been identified as the focal species. Redband trout are widely distributed and locally abundant. Population density varies locally throughout the subbasin.

Subbasin: Burnt

Key Factors Limiting Burnt River Subbasin Focal Species[1,2,3]		
Factors for Decline/Limiting Factors/Threats		**Species/Race, and Life-Stage Most Affected**
		Redband Trout
Habitat	Floodplain Connectivity and Function	Juveniles, adults
	Channel Structure and Complexity	Juveniles, adults
	Riparian Areas and LWD Recruitment	Juveniles, adults
	Stream Flow	Juveniles, adults
	Water Quality	All
	Fish Passage	Juveniles, adults

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

Middle Snake

Redband Trout

ESA Listing Status: Species of Concern
Biological Objective: None
Status: No specific data are available regarding population numbers[1]

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

BPA-Funded Wildlife Projects in the Burnt Subbasin
There are no wildlife projects in this subbasin

[1] Clair, D. 2004. Burnt River Subbasin Plan. A Report Prepared for the Northwest Power and Conservation Council. Portland, Oregon.

Subbasin: Burnt

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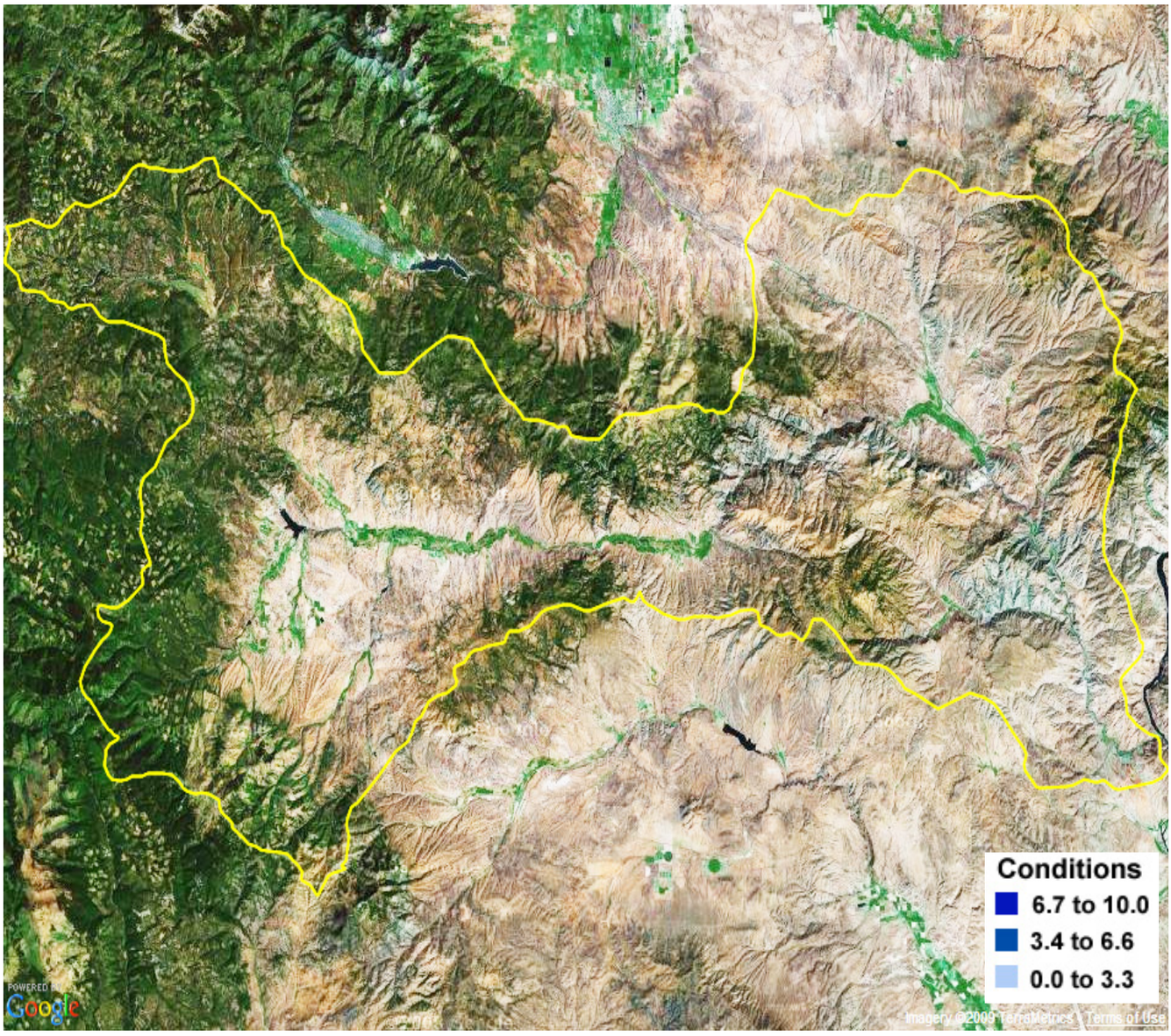
Middle Snake

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



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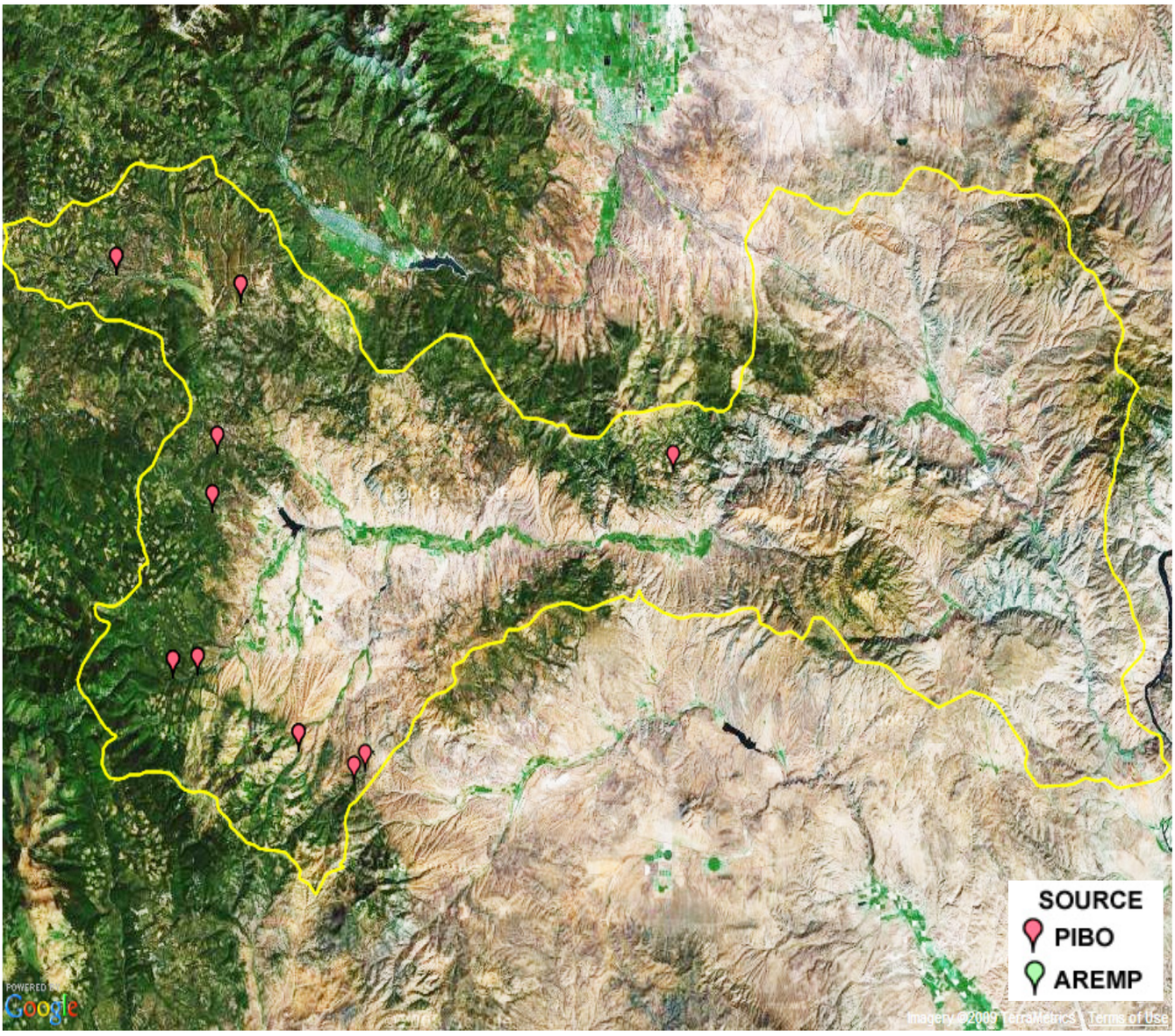
Subbasin: Burnt

Stream Inventory Sites on National Forest and Bureau of Land Management Lands
Burnt Subbasin



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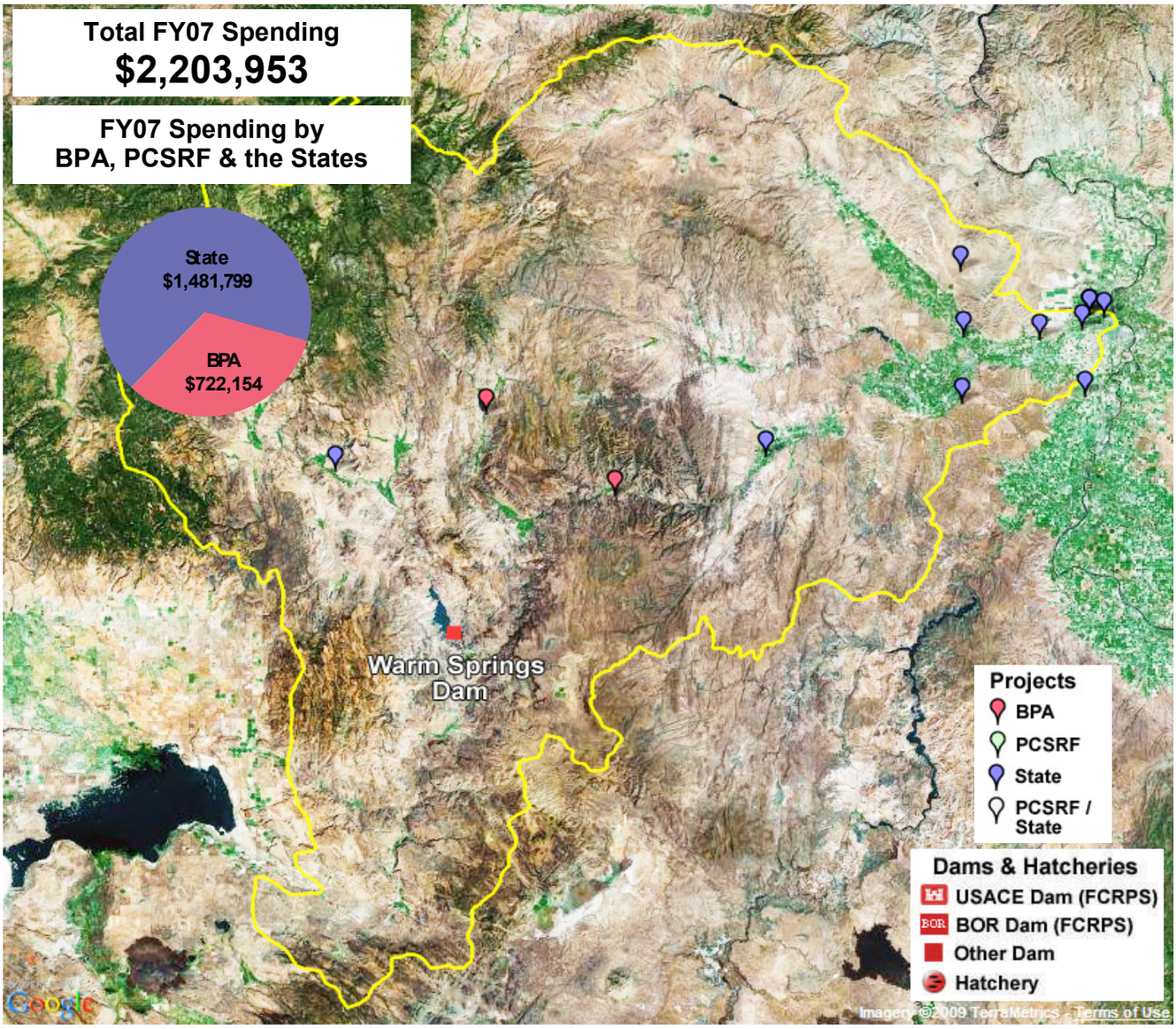
Middle Snake



In the Malheur Subbasin, bull trout and redband trout have been identified as focal species. Bull trout are listed as threatened under the federal Endangered Species Act. The one bull trout core present in the subbasin is within the Malheur Recovery Unit. Draft Recovery criteria for bull trout vary among recovery units and core areas. Although redband trout are present throughout the subbasin, anthropogenic causes limit the species production and population due to the underutilization of historic habitat.

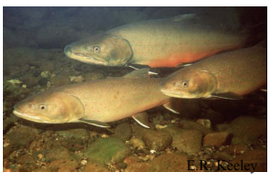
Subbasin: Malheur

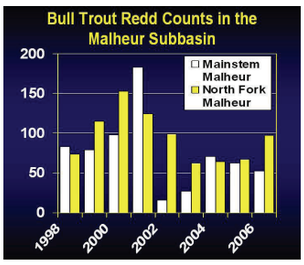
Key Factors Limiting Malheur River Subbasin Focal Species[1,2,3]			
Factors for Decline/Limiting Factors/Threats		**Species/Race, and Life-Stage Most Affected**	
		Bull Trout	**Redband Trout**
Habitat	Channel Structure and Complexity	Juveniles, adults	Juveniles, adults
	Riparian Areas and LWD Recruitment	Juveniles, adults	Juveniles, adults
	Stream Flow	All	All
	Water Quality	All	All
	Fish Passage	Juveniles, adults	Juveniles, adults
Hydro	Mainstem Malheur Dam Operations	Juveniles, adults	Juveniles, adults
	Passage to Areas above and below Malheur facilities	Juveniles, adults	Juveniles, adults
	Entrainment	Juveniles, adults	
Introduced Species	Competition with Introduced Species	Juveniles, adults	Juveniles, adults
	Introgression/Hybridization with Introduced Species	Adults	Adulys

BPA FY 2008 Habitat Project Accomplishments in the Malheur Subbasin			
Habitat Zone	**Project-type**	**Planned Value**	**FY 2008 Accomplishment (Actual Value)**
Riparian-Upland	Plant/remove vegetation, conduct controlled burns, create, restor/enhance wetland	708 acres	469 acres improved
Riparian	Plant vegetation	7 miles	7 miles protected

Middle Snake

Bull Trout





ESA Listing Status: Threatened
Core Population: Malheur (Within the Malheur River Recovery Unit)
Draft Recovery Plan Criteria: No numeric objective for adult abundance described in the subbasin plan.
2,000-3,000 adults distributed between Upper Malheau River and North Fork Malheur River[1]
Status:
Mainstem Malheur River
52 redds (2006)[2]

North Fork Malheur River Watershed
97 redds (2006)[2]
Abundance, Trend, Threat, and Risk Ranks (Malheur River Core):
Abundance = 50-250
Short-term Trend = Declining
Threat = Substantial, imminent

Redband Trout

ESA Listing Status: Species of Concern
Biological Objectives: No numeric objective for adult abundance described in the subbasin plan.
Status: Most recent surveys conducted in 2001. Population density ranged from 0—1.18 fish/m^{2} [2, 3]

Chinook

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

2007 Hatchery Releases and Returns to Hatcheries in the Malheur Subbasin

There are no hatcheries in the Malheur Subbasin.

BPA-Funded Wildlife Projects in the Malheur Subbasin

Project	Sponsor	Acres	HU	Habitat Type
Logan Valley Wildlife Mitigation Project Operations and Maintenance	Burns Paiute Tribe	1,760	608	Mixed conifer
Malheur Wildlife Mitigation Project	Burns Paiute Tribe	6,385	3,329	Shrub-steppe

Subbasin: Malheur

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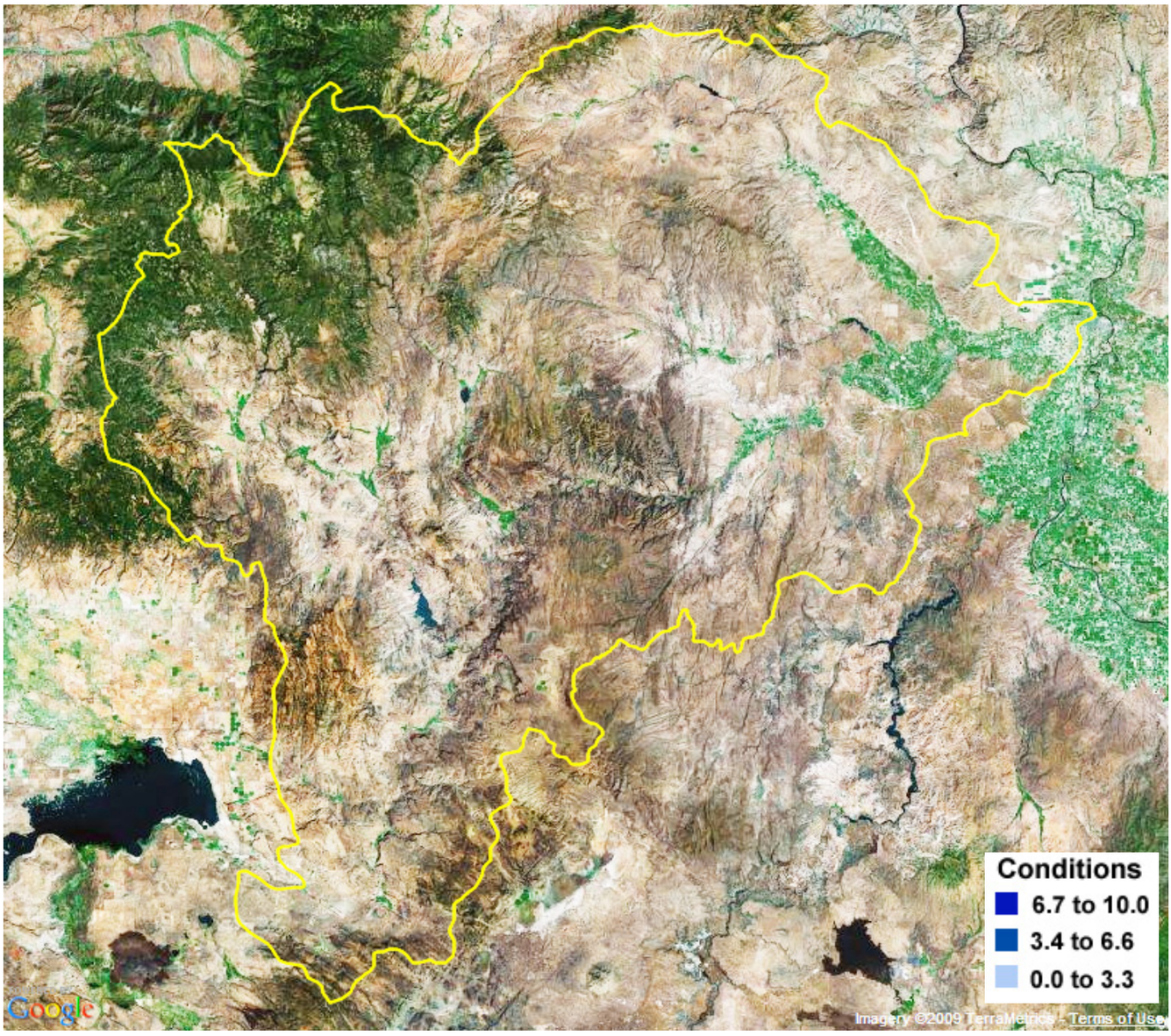
[1] United States Fish and Wildlife Service. 2003. Chapter 14, Malheur River Recovery Unit 13, Oregon. *In*: U. S. Fish and Wildlife Service. Bull Trout (*Salvelinus confluentus*) Recovery Plan. Portland, Oregon.
[2] Schwabe, L. Burns Paiute Tribe. Personal Communication.
[3] Malheur Watershed Council and Burns Paiute Tribe. 2004. Malheur Subbasin Plan. A Report Prepared for the Northwest Power and Conservation Council. Portland, Oregon.

Middle Snake

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



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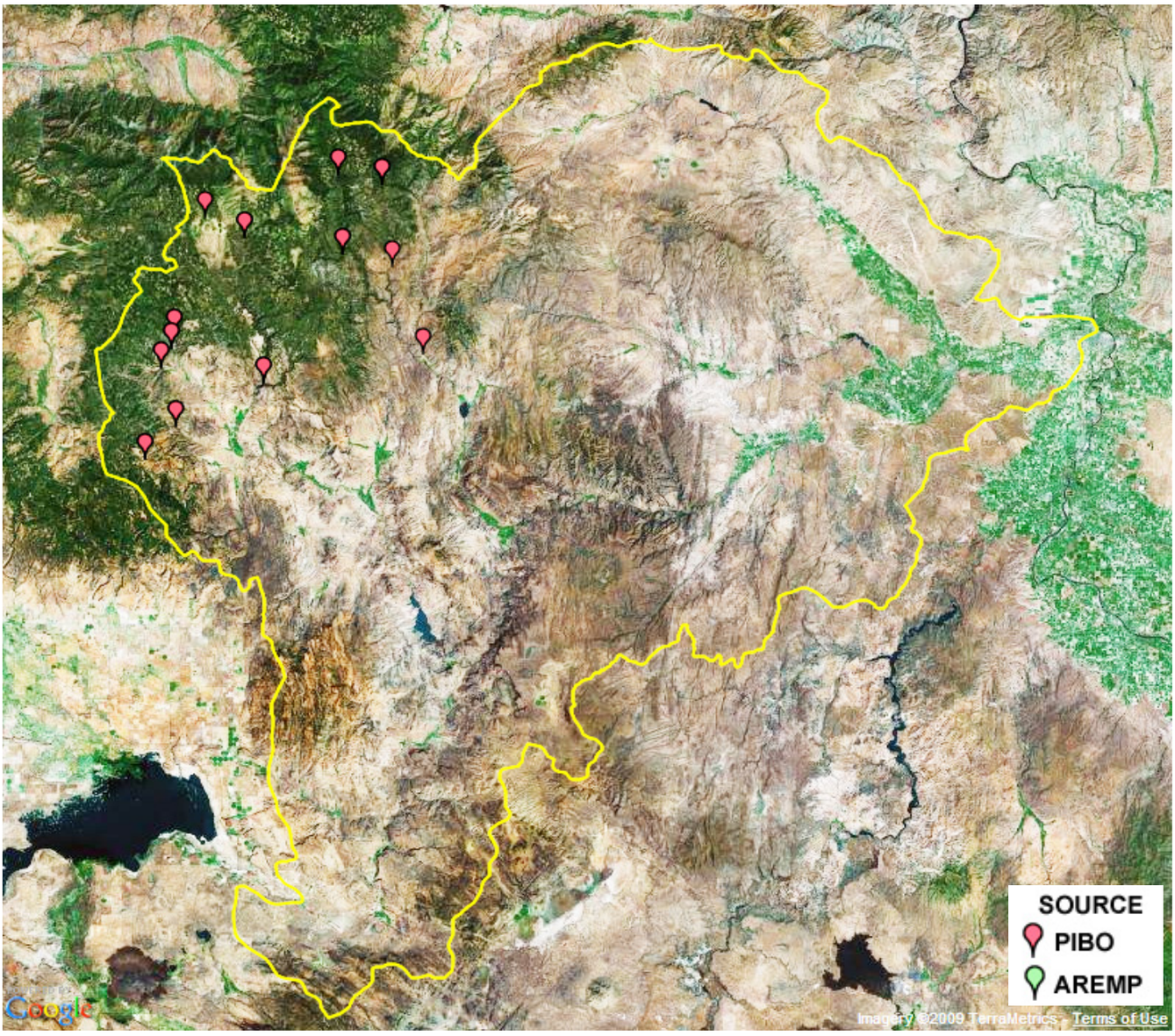
Subbasin: Malheur

Stream Inventory Sites on National Forest and Bureau of Land Management Lands
Malheur Subbasin



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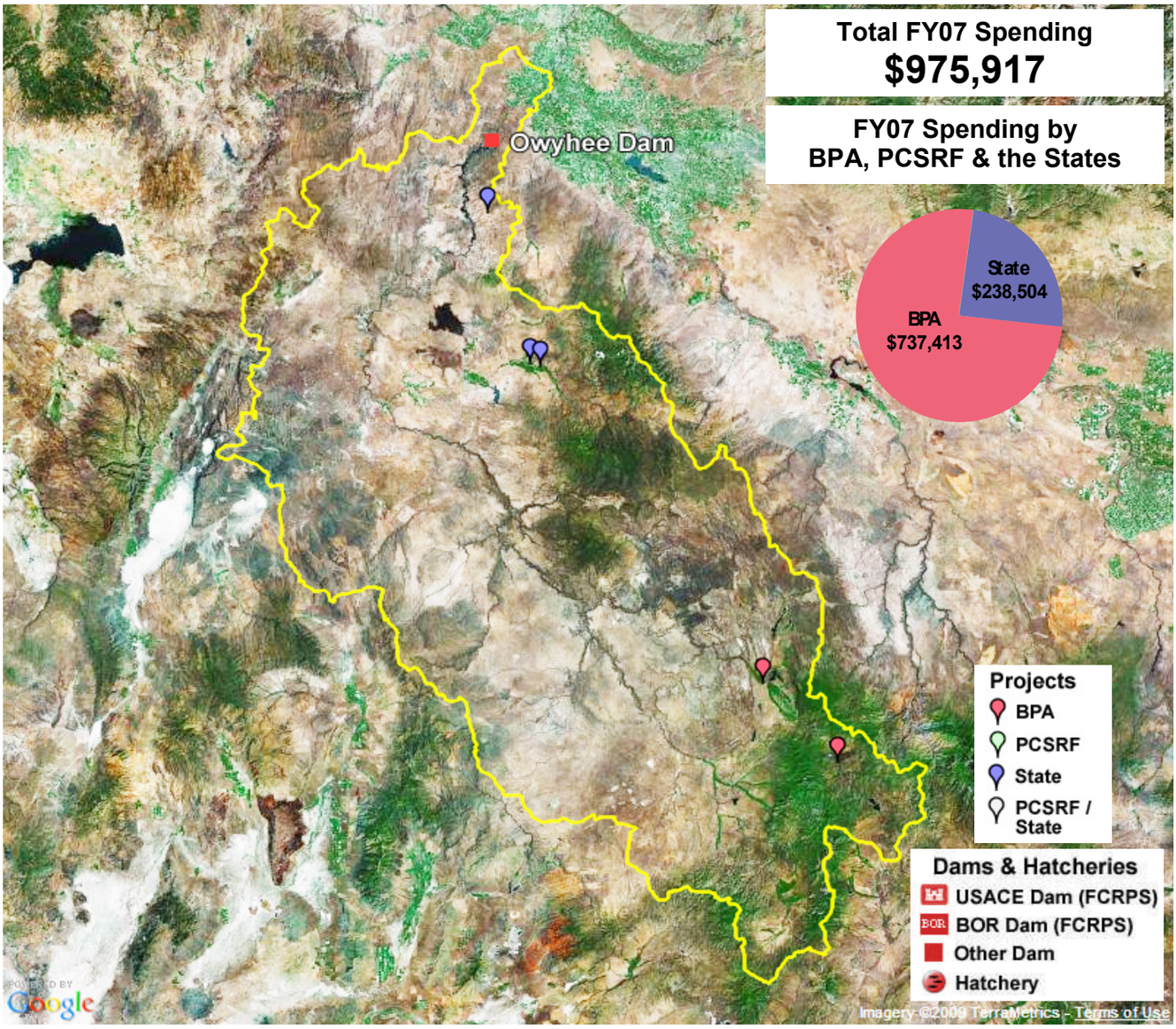
Middle Snake



In the Owyhee Subbasin, redband trout has been identified as the focal species. The distribution of redband trout in the Owyhee Subbasin is fragmented. Most stream supporting redband trout occur on the east side of the subbasin, primarily in Idaho.

Subbasin: Owyhee

Key Factors Limiting Owyhee River Subbasin Focal Species[1,2,3]		
Factors for Decline/Limiting Factors/Threats		**Species/Race, and Life-Stage Most Affected**
		Redband Trout
Habitat	Channel Structure and Complexity	Juveniles, adults
	Riparian Areas and LWD Recruitment	Juveniles, adults
	Stream Flow	All
	Water Quality	All
	Fish Passage	Juveniles, adults
Hydro	Passage to Areas	Juveniles, adults

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

Redband Trout

ESA Listing Status: Species of Concern
Biological Objective: None
Status: Stream order and density estimates (fish/m^2)
Owyhee River
1– 0.267
2– 0.149
3– 0.016

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

BPA-Funded Wildlife Projects in the Owyhee Subbasin

Project	Sponsor	Acres	HU	Habitat Type
Southern Idaho Wildlife Mitigation	Shoshone-Paiute Tribe			

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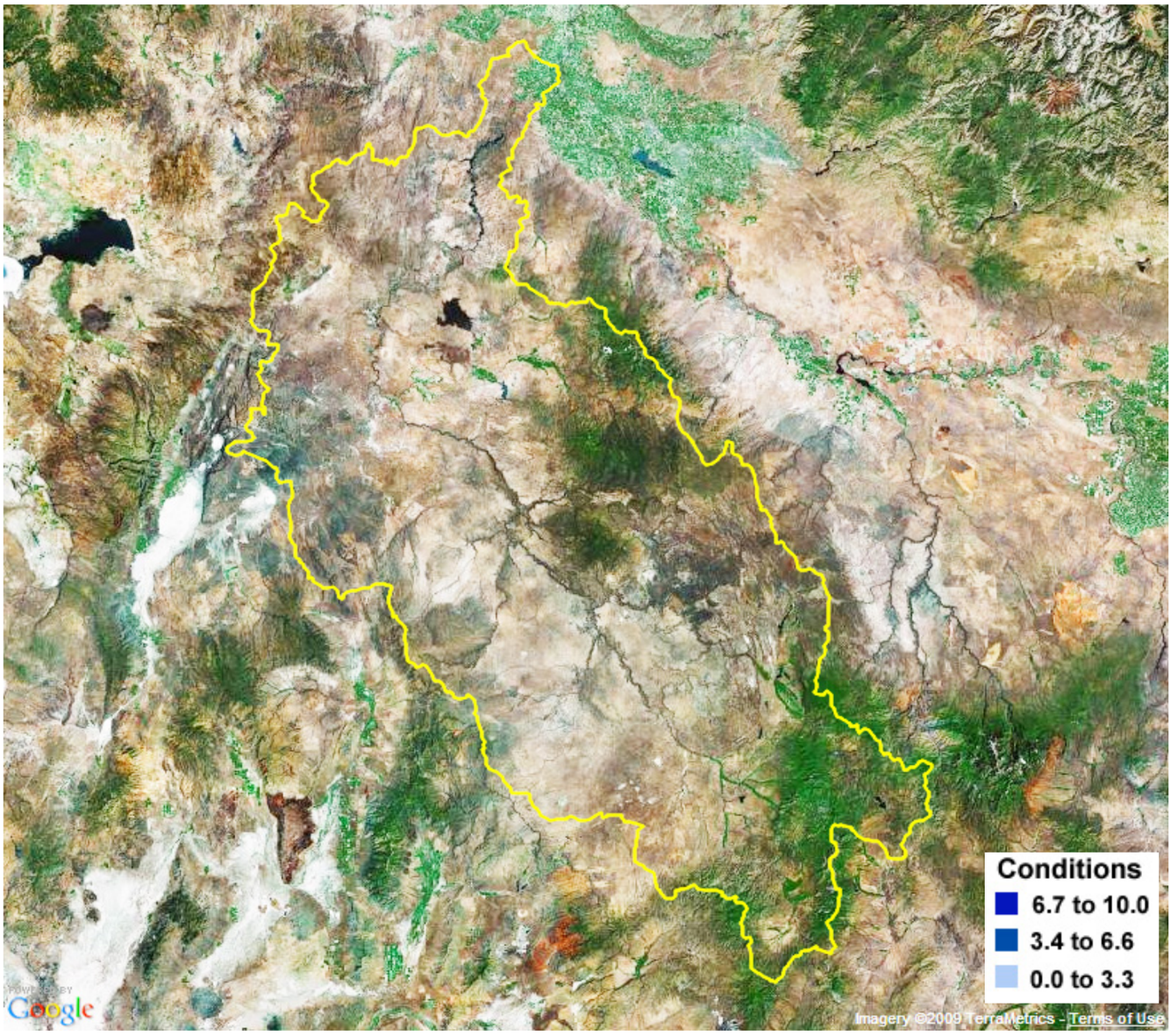
Shoshone-Paiute Tribes and the Owyhee Watershed Council. 2004. Owyhee Subbasin Plan. A report prepared for the Northwest Power and Conservation Council. Portland, Oregon.

Middle Snake

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



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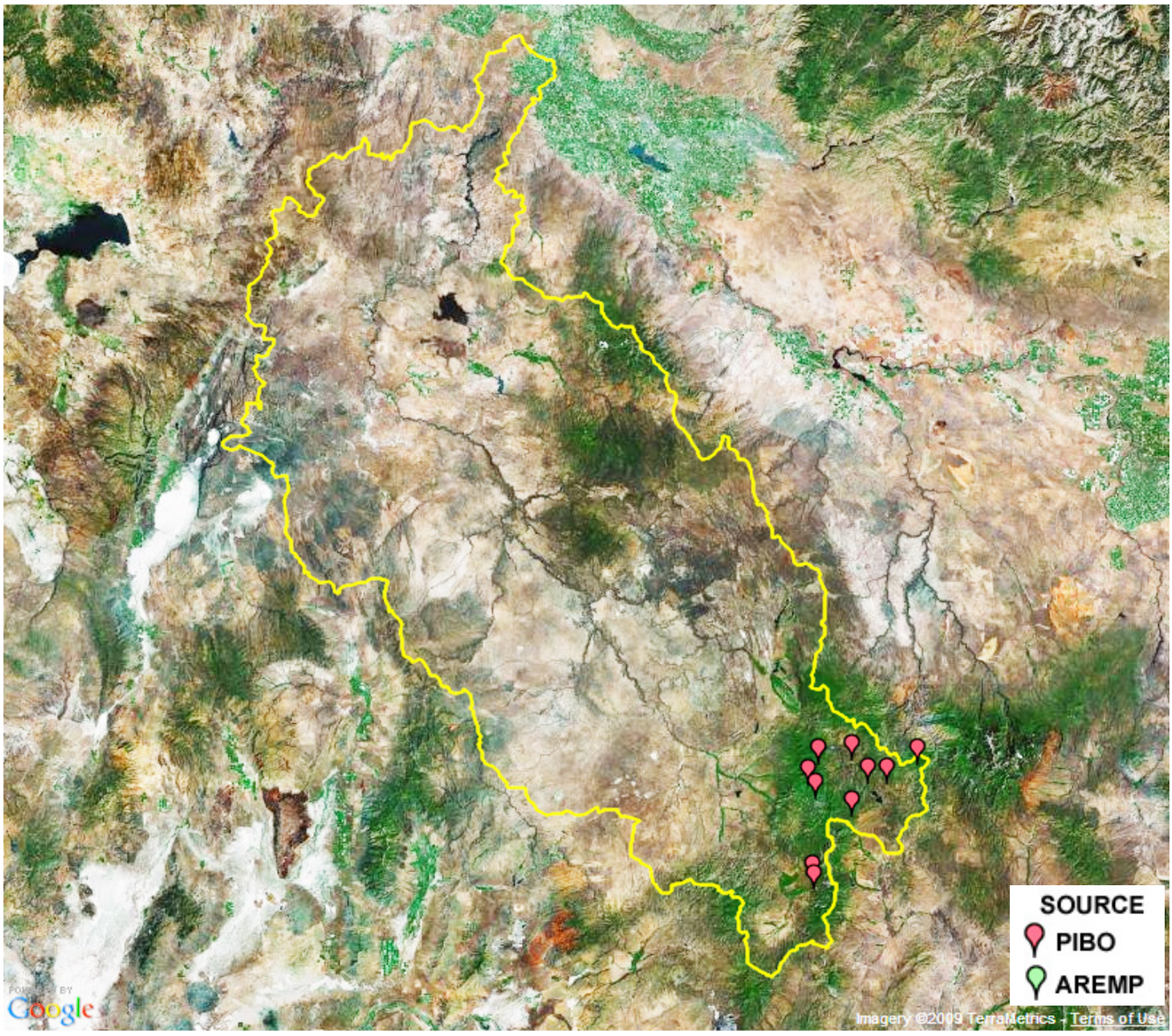
Subbasin: Owyhee

Stream Inventory Sites on National Forest and Bureau of Land Management Lands
Owyhee Subbasin



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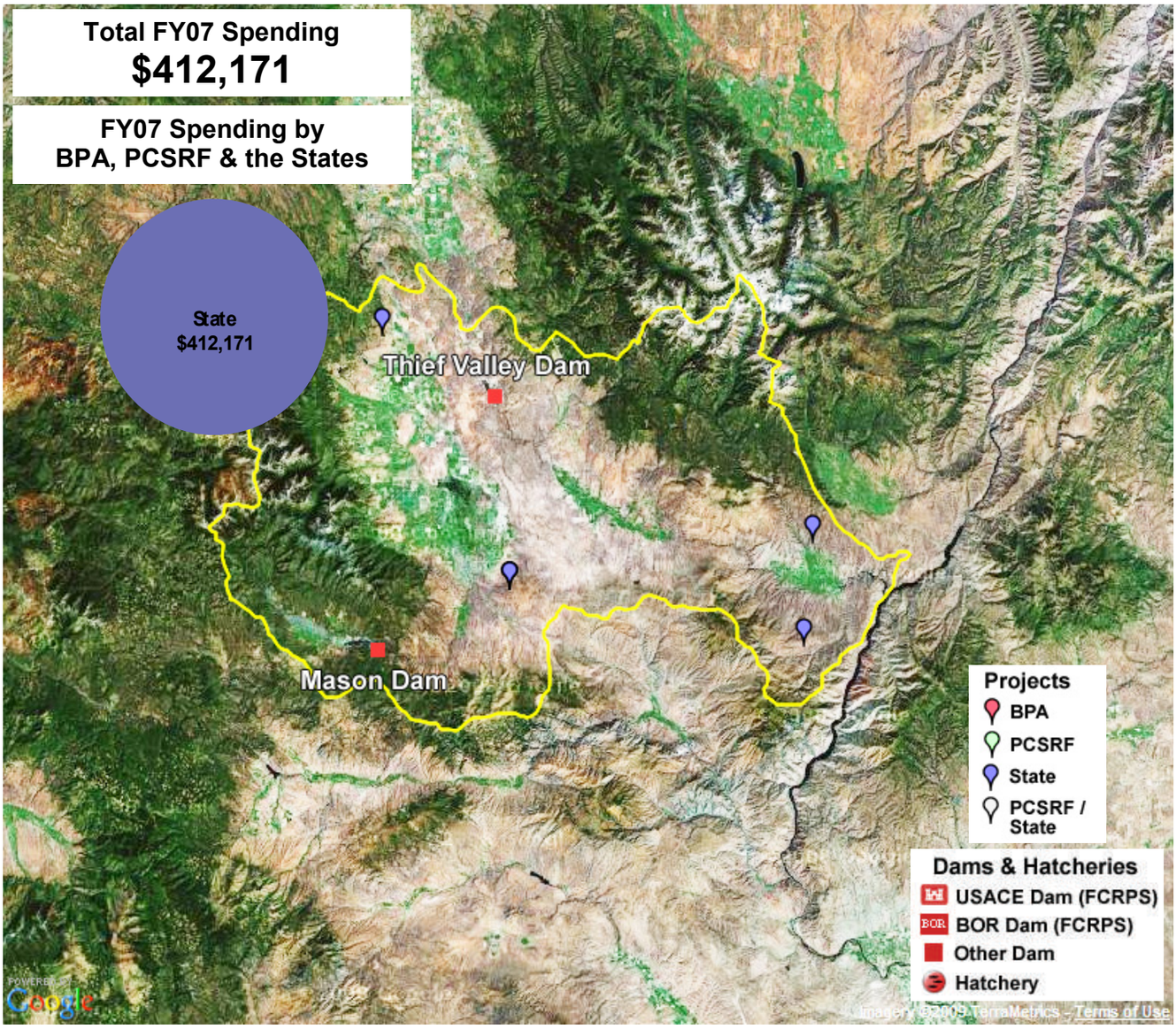
Middle Snake



In the Powder Subbasin, bull trout and redband trout have been identified as focal species. Bull trout are listed as threatened under the federal Endangered Species Act. The one bull trout core present in the subbasin is within the Hells Canyon Complex Recovery Unit. Draft Recovery criteria for bull trout vary among recovery units and core areas. For redband trout, no data are available regarding population numbers, productivity, or carrying capacity.

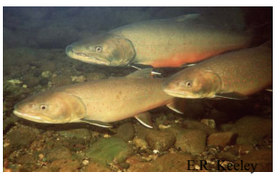
Subbasin: Powder

Key Factors Limiting Powder River Subbasin Focal Species			
Factors for Decline/Limiting Factors/Threats		**Species/Race, and Life-Stage Most Affected**	
		Bull Trout	**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	Adults
Hydro	Passage to Areas within the Hells Canyon Complex	Juveniles, adults	Juveniles, adults
Introduced Species	Competition with Introduced Species	Juveniles, adults	Juveniles, adults

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

Middle Snake

Bull Trout



ESA Listing Status: Threatened
Core Population: Powder River (Within the Hells Canyon Complex Recovery Unit)
Biological Objectives: 5,000 adults in the Recovery Unit (adult abundance requirements not provided for the Powder River Core population)[1]
Status: Unknown[2]
Abundance, Trend, Threat, and Risk Ranks (Powder River Core):
Abundance = 250-1,000
Short-term Trend = Very Rapid decline
Threat = Substantial, imminent
Risk = High

Redband Trout

ESA Listing Status: Species of Concern
Biological Objectives: None
Status: An estimate of redband trout in the subbasin is difficult because limited population studies have been conducted. Most recent information is from 1997[2]

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

BPA-Funded Wildlife Projects in the Powder Subbasin
There are no wildlife projects in this subbasin.

Subbasin: Powder

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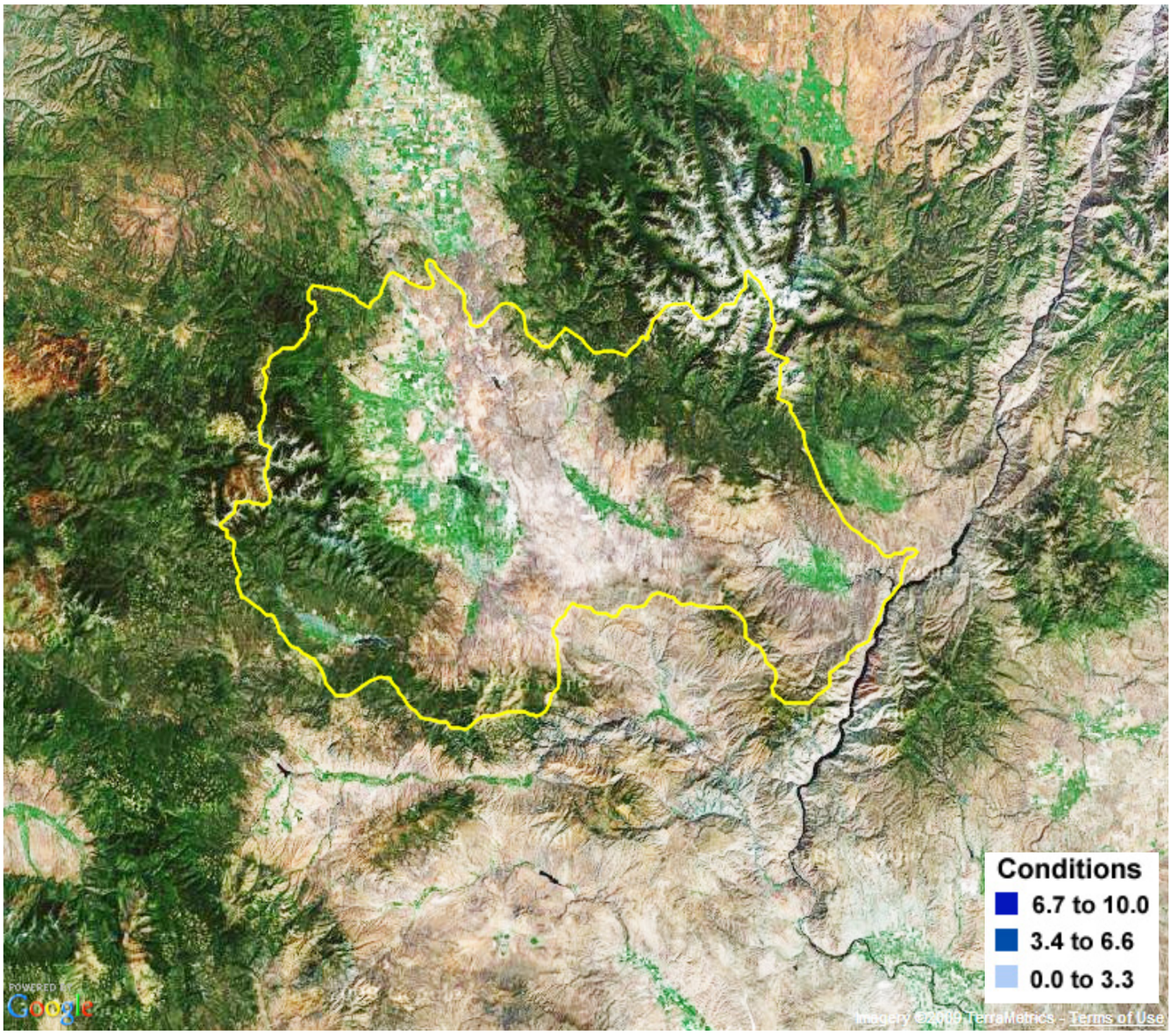
[1] United States Fish and Wildlife Service. 2003. Chapter 13, Hells Canyon Recovery Unit 12, Oregon. *In*: U. S. Fish and Wildlife Service. Bull Trout (*Salvelinus confluentus*) Recovery Plan. Portland, Oregon.
[2] Baker, D. 2004. Powder River Subbasin Plan. A Report Prepared for the Northwest Power and Conservation Council. Portland, Oregon.

Middle Snake

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



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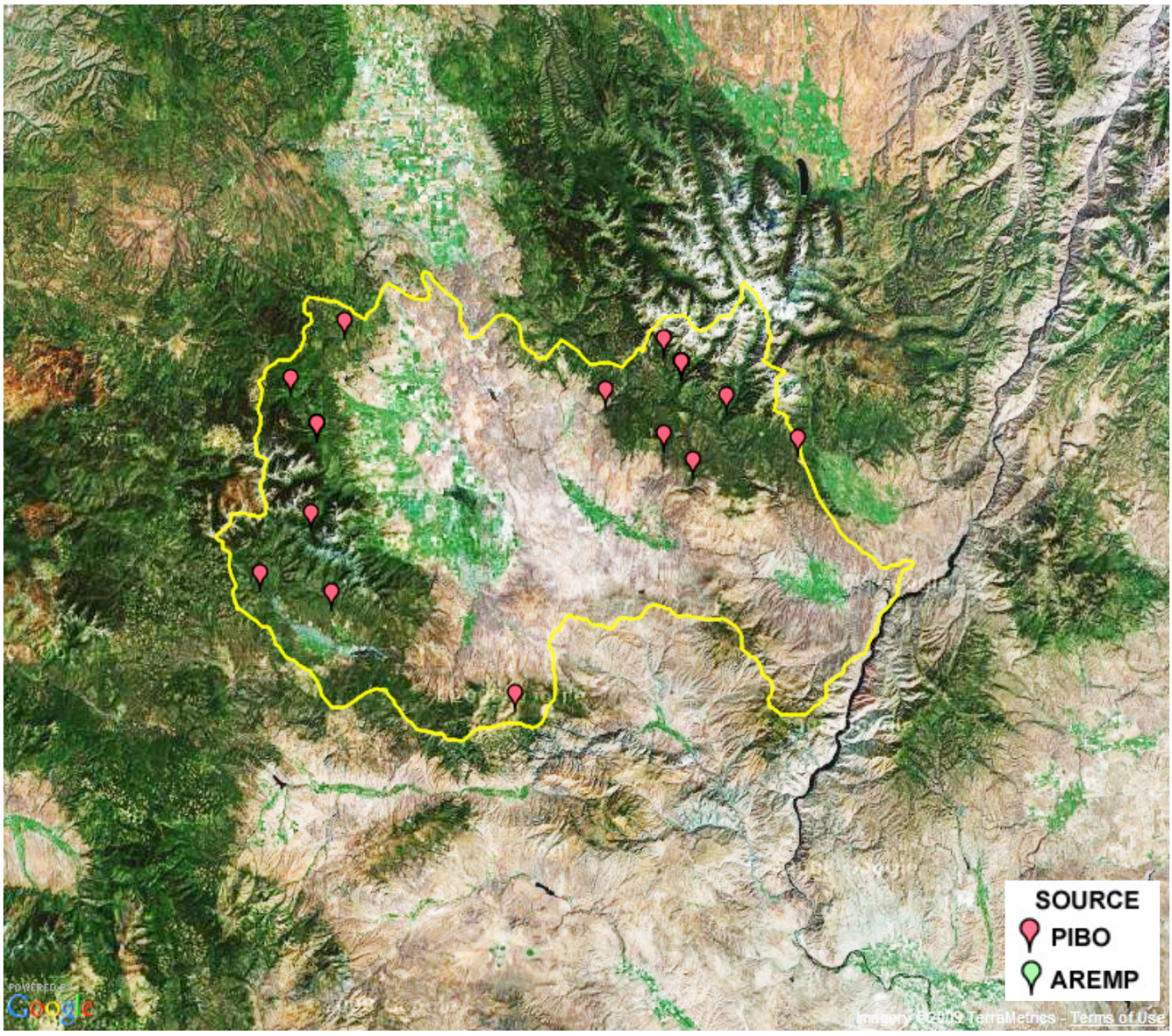
Subbasin: Powder

Stream Inventory Sites on National Forest and Bureau of Land Management Lands
Powder Subbasin



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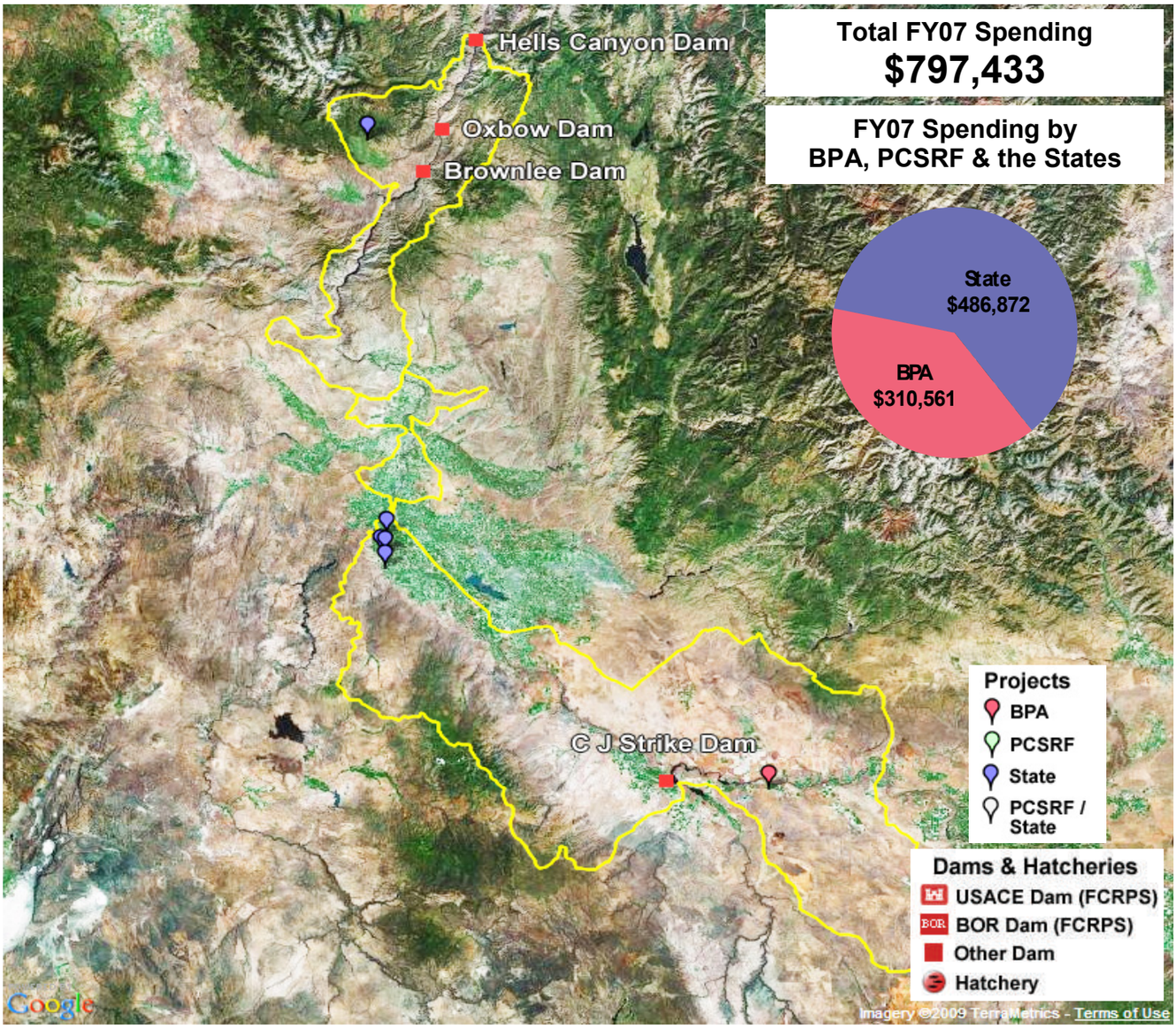
Middle Snake



In the Snake Upper/Lower Middle Subbasin, bull trout, redband trout, white sturgeon, mountain whitefish, and Wood River sculpin have been identified as focal species. Bull trout are listed as threatened under the federal Endangered Species Act. The one bull trout core present in the subbasin is within the Hells Canyon Complex Recovery Unit. Draft Recovery criteria for bull trout vary among recovery units and core areas.

Subbasins: Snake Upper/Lower Middle

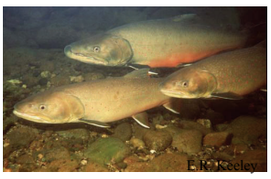
Key Factors Limiting Snake Upper/Lower Middle Subbasin Focal Species[1,2,3]						
Factors for Decline/Limiting Factors/Threats		**Species/Race, and Life-Stage Most Affected**				
		White Sturgeon	**Mountain Whitefish**	**Wood River Sculpin**	**Bull Trout**	**Redband Trout**
Habitat	Channel Structure and Complexity					
	Riparian Areas and LWD Recruitment					
	Stream Flow				All	All
	Water Quality				All	All
	Fish Passage				Juveniles, adults	Juveniles, adults
Hydro	Hydropower Operation Effects					
	Passage				Juveniles, adults	
Hatchery	Hatchery Fish Interbreeding With Wild Fish					
Harvest	Mortality from Targeted Fishery					
Introduced Species	Competition with Introduced Species				Juveniles, adults	

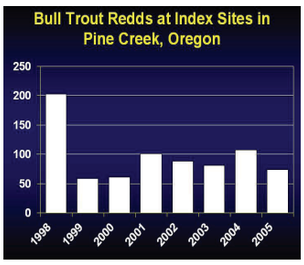
BPA FY 2008 Habitat Project Accomplishments in the Snake Upper/Lower Middle Subbasin

There are no BPA-funded habitat improvement efforts in this subbasin.

Middle Snake

Bull Trout





ESA Listing Status: Threatened
Core Population: Pine/Indian/ Wildhorse (Within the Hells Canyon Complex Recovery Unit)
Draft Recovery Plan Criteria: ≥ 500 adults in Indian Creek, Bear Creek, Crooked River Upper Pine Creek (including West Fork Pine, Middle Fork Pine, and East Fork Pine creeks), Clear Creek (including Trail and Meadow creeks), East Pine Creek, and Elk Creek (including Aspen, Big Elk, and Cabin creeks)[1]
5,000 adults in the Recovery Unit (adult abundance requirements not provided for the Pine/Indian/ Wildhorse core population)[2]
Status: 74 redds in Pine Creek (2005)[3]
Abundance, Trend, Threat, and Risk Ranks (Pine, Indian, and Wildhorse Creeks Core):
Abundance = 250-1,000
Short-term Trend = Very Rapid decline
Threat = Substantial, imminent
Risk = High

Mountain Whitefish

ESA Listing Status: None
Biological Objectives: None
Status:
Big Wood Drainage
2,876 fish (amendment)
No data exist for other tributary, free-flowing river reaches, or reservoir populations.[1]

White Sturgeon

ESA Listing Status: None
Biological Objective: None
Status: Population estimates
Shoshone Falls—777 (2001)
Bliss—3,100 (2005)
C.J. Strike—566 (2007)

Wood River Sculpin

ESA Listing Status: None
Biological Objectives: None
Status: Approximately 1.36 million fish present throughout the Wood River basin (2003)

Redband Trout

ESA Listing Status: Species of Concern
Biological Objectives: None
Status: Stream order and density estimates (fish/m^2)
Snake River Tributaries
1– 0.124
2– 0.168
3– 0.138
4– 0.047

2007 Hatchery Releases and Returns to Hatcheries in the Snake Upper/Lower Middle Subbasin

Hatchery/Acclimation Pond	Species	Release Goal/Released	Return Goal/Actual Return
Oxbow			
Total			

BPA-Funded Wildlife Projects in the Snake Upper/Lower Middle Subbasin

There are no wildlife projects in this subbasin

Subbasins: Snake Upper/Lower Middle

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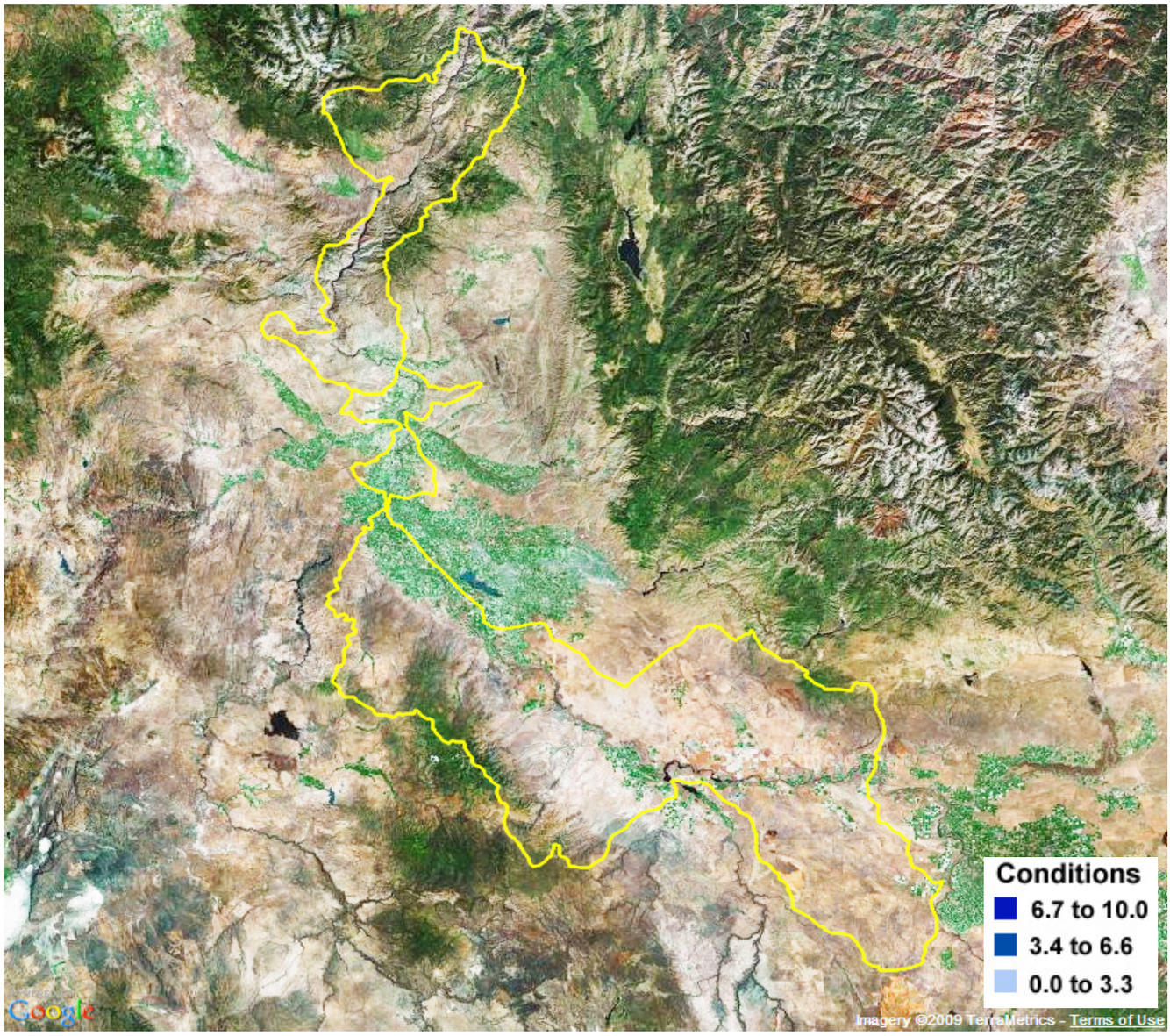
[1] Idaho Department of Fish and Game. 2004. Middle Snake Subbasin Plan. A Report Prepared for the Northwest Power and Conservation Council. Portland, Oregon.
[2] United States Fish and Wildlife Service. 2003. Chapter 13, Hells Canyon Complex Recovery Unit 12, Oregon. *In*: U. S. Fish and Wildlife Service. Bull Trout (*Salvelinus confluentus*) Recovery Plan. Portland, Oregon.
[3] Zakel, J. Oregon Department of Fish and Wildlife. Personal Communication.
[4] Partridge, F. Idaho Department of Fish and Game. Personal Communication.

Middle Snake

Watershed Conditions for National Forest and Bureau of Land Management Lands in the Snake Upper/Lower Middle Subbasin



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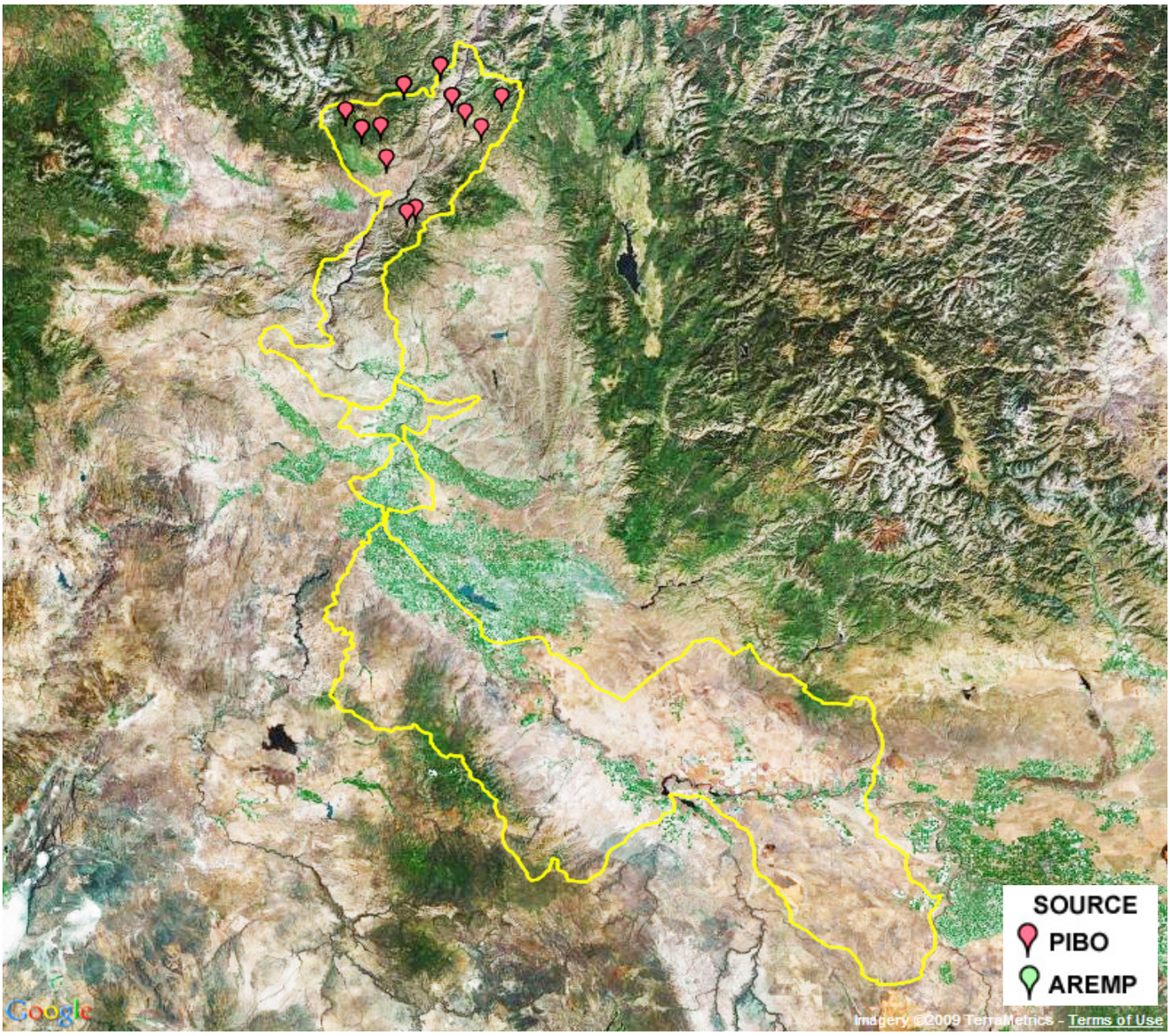
Subbasins: Snake Upper/Lower Middle

Stream Inventory Sites on National Forest and Bureau of Land Management Lands
Snake Upper/Lower Middle Subbasin



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