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Idaho

**Clearwater - 17060306**  
8 Digit Hydrologic Unit Profile December 2006

## Introduction

The Clearwater 8-Digit Hydrologic Unit Code (HUC) subbasin is 1,503,992 acres. Clearwater and Nez Perce counties each account for approximately 24 percent of the subbasin. Twenty two percent of the subbasin is in Latah County, 18 percent in Lewis County, 13 percent in Idaho County and less than 0.5% in Whitman County, Washington. Seventy seven percent of the basin is privately owned, five percent is Tribal land and 18 percent is public land.

Forty percent of the basin is in forest, 34 percent is cropland, and 21 percent is shrubland, rangeland, grass, pasture or hayland. Approximately 3 percent of the watershed is enrolled in the Conservation Reserve Program (CRP). The remaining two percent is water, wetland, developed or barren.

Elevations range from 700 feet in the western portion to over 6000 feet in the eastern portion.

Conservation assistance is provided by five Soil and Water Conservation Districts, and one Resource Conservation and Development office.

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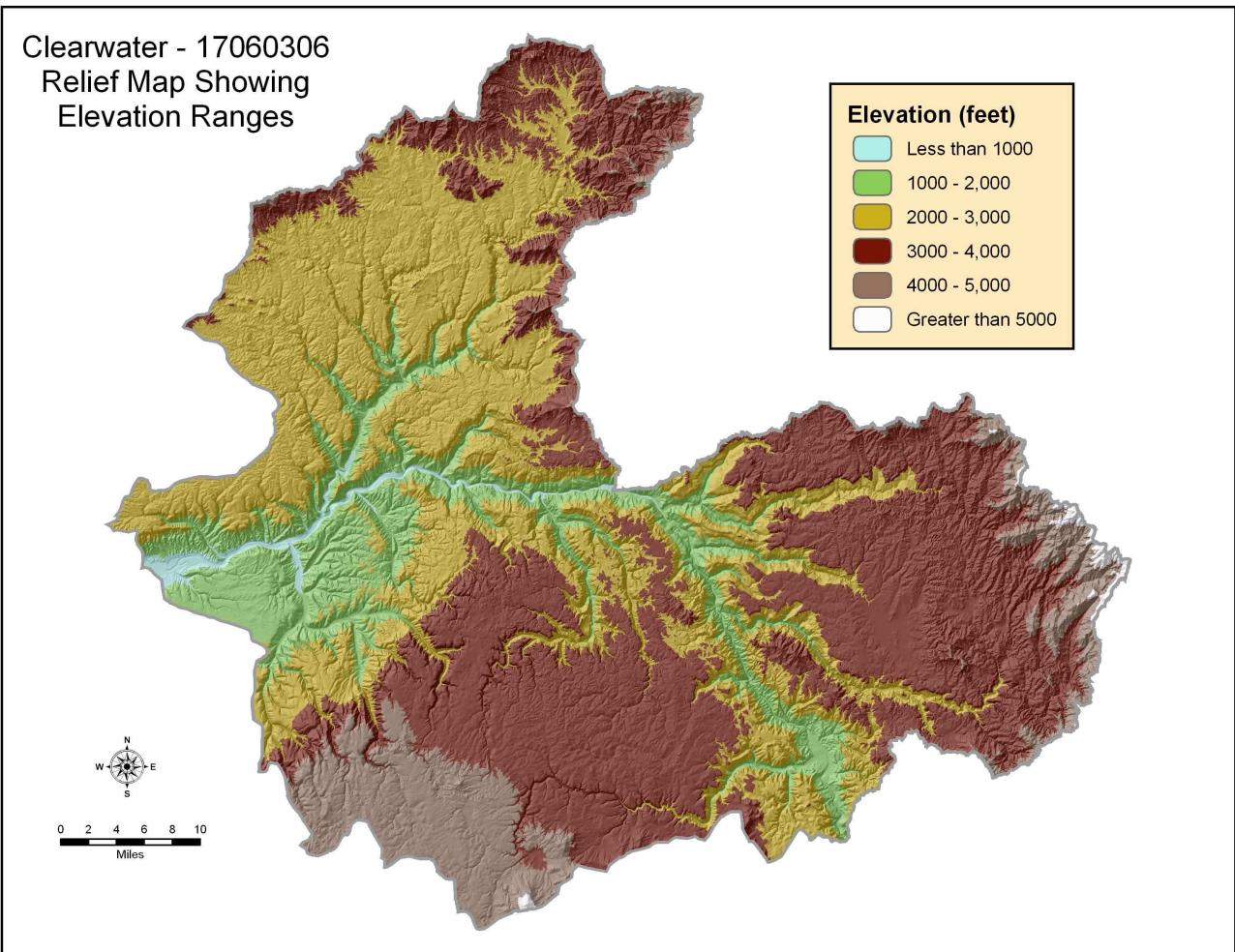
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[Progress/Status](#)

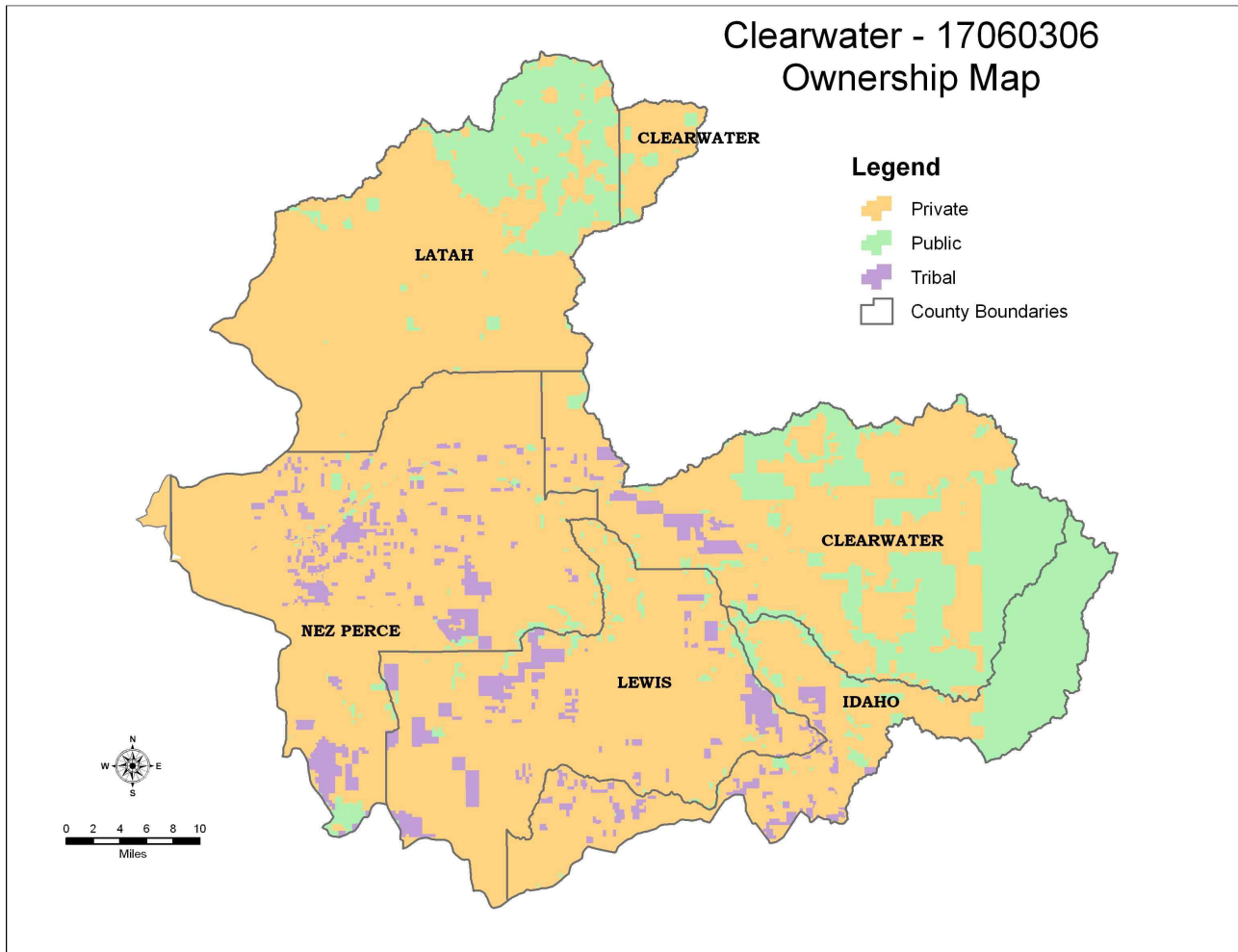
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### Relief Map



**General Ownership**





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**Physical Description**

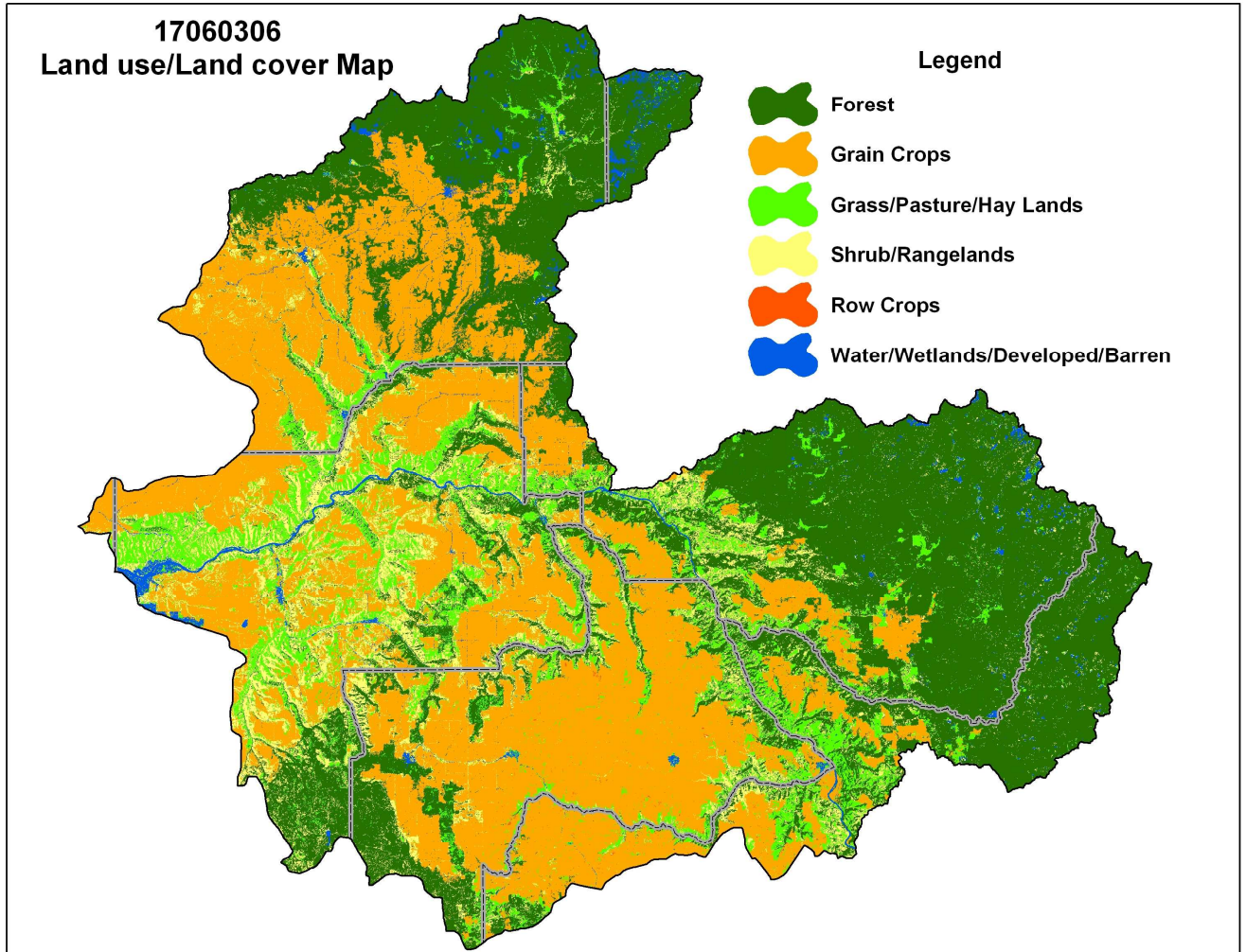
Land Cover / Land Use (NLCD) <sup>1,2</sup>	Ownership - (2003 Draft BLM Surface Map Set) <sup>1</sup>							Totals	% of HUC
	Public		Private		Tribal				
	Acres	%	Acres	%	Acres	%			
Forest	243,323	16%	334,324	22%	26,553	2%	<b>604,200</b>	<b>40%</b>	
Grain Crops		--	486,616	32%	29,372	2%	<b>515,988</b>	<b>34%</b>	
Conservation Reserve Program (CRP) Land <sup>3</sup>		--	49,030	3%	1,328	<1%	<b>50,358</b>	<b>3%</b>	
Wetlands Reserve Program (WRP) Land			95				<b>95</b>	<b>&lt;1%</b>	
Grass/Pasture/Hay Lands	9,782	<1%	131,815	9%	12,130	1%	<b>153,727</b>	<b>10%</b>	
Orchards/Vineyards/Berries		--		--		--		<b>--</b>	
Row Crops		--	657	<1%	83	<1%	<b>740</b>	<b>&lt;1%</b>	
Shrub/Rangelands	12,382	1%	127,134	8%	12,370	1%	<b>151,886</b>	<b>10%</b>	
Water/Wetlands/Developed/Barren	5,680	<1%	22,607	2%	946	<1%	<b>29,233</b>	<b>2%</b>	
<b>Idaho HUC Totals*</b>	<b>271,167</b>	<b>18%</b>	<b>1,152,278</b>	<b>76%</b>	<b>82,782</b>	<b>6%</b>	<b>1,506,227</b>	<b>100%</b>	

\*Totals are approximate due to calculation methods used.

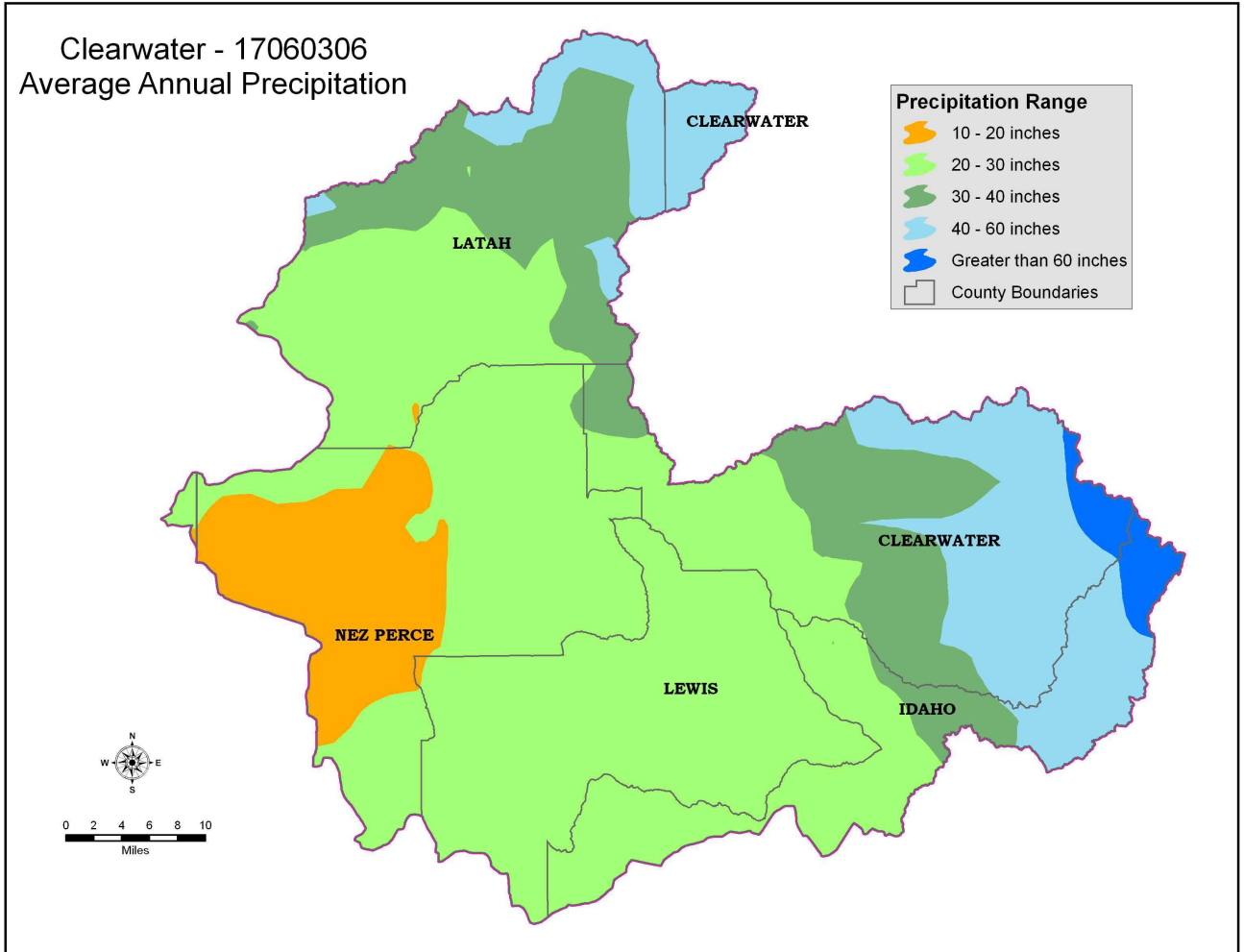
Irrigated Lands <sup>4</sup>	Type of Land	ACRES	% of Irrigated Lands	% of HUC
	Cultivated Cropland	2,400	65%	<1%
	Non-Cultivated Cropland**	1,300	35%	<1%
	Pastureland	0		--
	<b>Total Irrigated Lands</b>	<b>3,700</b>	<b>100%</b>	<b>&lt;1%</b>

\*\*Includes permanent hayland and horticultural cropland.

**Land Use/Land Cover**



**Average Annual Precipitation**

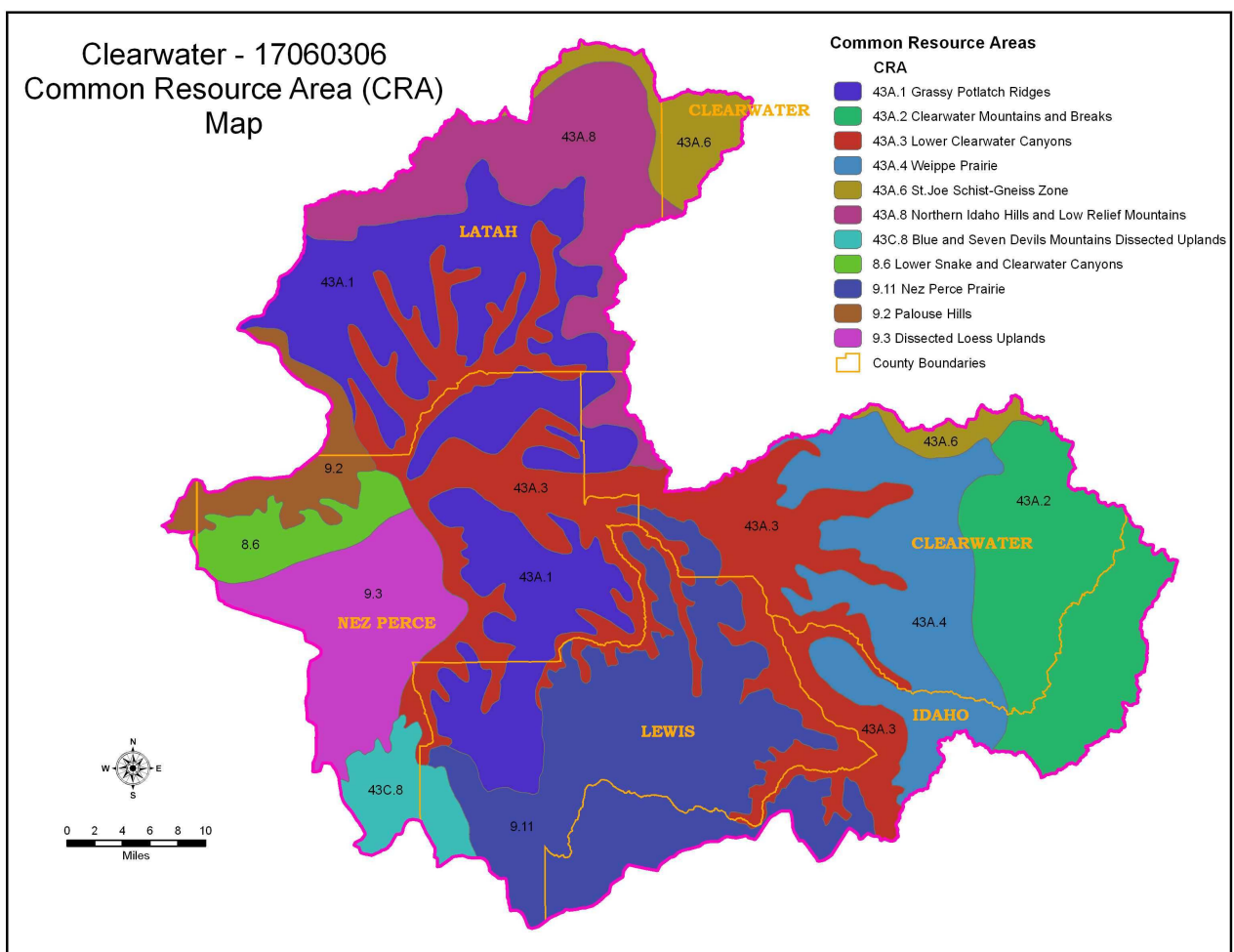


**Common Resource Area Map**

**CRA Map - areas with a majority are listed below - for descriptions of every class within the HUC, go to: <http://ice.id.nrcs.usda.gov/website/cra/viewer.htm>**

A Common Resource Area (CRA) is defined as a geographical area where resource concerns, problems, or treatment needs are similar. It is considered a subdivision of an existing Major Land Resource Area (MLRA) map delineation or polygon. Landscape conditions, soil, climate, human considerations, and other natural resource information are used to determine the geographic boundaries of a Common Resource Area.

([General Manual Title 450 Subpart C 401.21](#))





## Common Resource Area Descriptions

The National Coordinated CRA Geographic Database provides:

- A consistent CRA geographic database;
- CRA geographic data compatible with other GIS data digitized from 1:250,000 scale maps, such as landuse/landcover, political boundaries, Digital General Soil Map of the U.S. (updated STATSGO), and ecoregion boundaries;
- A consistent (correlated) geographic index for Conservation System Guides information and the eFOTG
- A geographic linkage with the national MRLA framework

**8.6 Columbia Plateau - Lower Snake and Clearwater Canyons** This unit consists of deeply dissected canyons cut through the basalt layers of the Columbia Plateau. It has isolated plateau fragments of the Dissected Loess Uplands CRA. The depth of the canyons, up to 2,000 feet, create drier conditions and Mean annual precipitation decreases to about 10 inches at the bottom of these canyons. Outside of human population centers and transportation corridors, canyons provide wildlife habitat for bighorn sheep and game birds. Grass-covered: grazing, recreation, and wildlife habitat.

**9.2 Palouse and Nez Perce Prairies - Palouse Hills** This unit is the western foothills of the Northern Rocky Mountains. This unit is characterized by a non-forested, loess-covered area with greater than 15 inches of precipitation. The highly productive soil has a higher organic matter and clay content. Original plant cover has been almost entirely supplanted by wheat farms. Water erosion is the major management issue. Perennial streams originate from the mountains to the east. Smaller, loess-bottomed streams rise within the CRA and are intermittent. Many of these intermittent streams are plowed and tiled. Extensive farming including small grains, peas, lentils, hay and pastureland.

**9.3 Palouse and Nez Perce Prairies - Dissected Loess Uplands** This unit is located on the northeastern slopes of the Blue Mountains. It comprises non-forested, rolling loess hills, canyons, and flat plateau remnants isolated by the lower canyons of the Snake River (CRA 8.6). Grasslands without a sagebrush component dominate the lower elevations. Shrubs (rose and snowberry) appear with increasing moisture at higher elevations. Though grazing and farming have eliminated much of the original plant cover, the dissected terrain and thinner soil is not as suited to agriculture as the neighboring Palouse Hills and Deep Loess Foothills CRAs. Small grain, pea, and hay farming, grazing, and wildlife habitat.

**9.11 Palouse and Nez Perce Prairies - Nez Perce Prairie** This unit is a loess-covered plateau. It is higher, cooler, less hilly, and has shallower soils than the Palouse Hills CRA. Idaho fescue and bluebunch wheatgrass are native. Cropland is now extensive and grows wheat, barley, peas, and hay. The headwaters of many perennial streams are impacted by agricultural land use, negatively impacting the water quality of downstream canyon reaches.

**Common Resource Area Descriptions - continued**

**43A.1 Northern Rocky Mountains - Grassy Potlatch Ridges** The Grassy Potlatch Ridges ecoregion is underlain by volcanics and mantled by loess and volcanic ash. Idaho fescue, bluebunch wheatgrass, bluegrass, snowberry, and, on cooler, moister sites, scattered ponderosa pine occur and contrast with the forests of the Northern Idaho Hills and the forests and savannas of the Lower Clearwater Canyons. Today, small grain farming, hay operations, and livestock grazing are extensive.

**43A.2 Northern Rocky Mountains - Clearwater Mountains and Breaks** The Clearwater Mountains and Breaks ecoregion is exposed to substantial maritime influence, mantled by thick volcanic ash, and underlain by granitics. Its moist coniferous forests lack western hemlock and are transitional between those of the Idaho Panhandle and the drier forests of the southern Idaho Batholith.

**43A.3 Northern Rocky Mountains - Lower Clearwater Canyons** The deep, narrow Lower Clearwater Canyons are lower, drier, warmer, and have been more developed than the Lochsa-Selway-Clearwater Canyons. Savanna, Douglas-fir-ponderosa pine forest, and, in riparian areas, western red cedar-western white pine-grand fir forest occur. Forests are more widespread on canyon bottoms than on slopes.

**43A.4 Northern Rocky Mountains - Weippe Prairie** The Weippe Prairie ecoregion is a gently sloping basalt plateau that is mantled by loess and volcanic ash. Its mixed coniferous forest contains ponderosa pine, Douglas-fir, grand fir, western red cedar, and western larch. Hay farming, grazing, and logging are common.

**43A.6 Northern Rocky Mountains - St. Joe Schist-Gneiss Zone** The St. Joe Schist-Gneiss Zone is mountainous, mantled by volcanic ash, and prone to landslides. High gradient streams dissect the region and receive episodic sedimentation from slides. Streams were used to transport logs to mills; log drives greatly altered aquatic ecosystems and stream morphology. Pacific influence is greater than to the south. Potential natural vegetation is mapped as cedar-hemlock-pine but hemlock is absent in the south. Near tree line, mountain hemlock, subalpine fir, Engelmann spruce, and whitebark pine occur.

**43A.8 Northern Rocky Mountains - Northern Idaho Hills and Low Relief Mountains** The Northern Idaho Hills and Low Relief Mountains ecoregion is mantled by volcanic ash and loess and has rich, forest-type soils that are unlike the grassland-type soils of the Columbia Plateau. Grand fir, western red cedar, Douglas fir, and ponderosa pine are common. Its productive forests are widely logged; logging is easier and cheaper than in more rugged terrain.

**43C.8 Blue and Seven Devils Mountains - Blue and Seven Devils Mountains Dissected Uplands** This unit is characterized by deeply dissected forested mountain slopes. Temperature regime is frigid and the moisture regime is xeric. Vegetation is grand fir, Douglas-fir and ponderosa pine. The soils on the north facing slopes retain an ash mantle but south facing slopes lack this mantle due to erosion. Below about 4,500 feet elevation, the Douglas fir forest changes abruptly to the grassland of the Warm Canyons and Dissected Uplands CRA.



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**Streamflow Summary** [/7.35](#)

The hydrology of the Clearwater subbasin is dominated by the Clearwater River mainstem as it flows through mostly semi-arid canyons and agricultural ground before it drains into the Snake River at Lewiston, Idaho. The Clearwater River provides approximately 10 percent of the flow of the Columbia River system annually; it contributes roughly one-third of the Snake River’s annual flow (Maughn, 1972). The Clearwater flows from southeast to northwest in the upper half of the subbasin, from Kooskia to Orofino. It flows from east to west in the lower half of the subbasin, from Orofino to Lewiston. The average annual (daily) flow of the Clearwater River near Spalding is 14,490 cfs; this is based on 30 years of flow data (1976 to 2005). Major tributaries to the Clearwater River in the subbasin include the Potlatch River, Lapwai Creek, Big Canyon Creek, Orofino Creek, Jim Fork Creek, and Lawyers Creek.

Peak flows generally occur in May or June, with base flows predominant in August and September. Snowmelt or seasonal rainstorms drive timing, duration, and volume of peak flows at elevations less than 4000'. Rain-on-snow events can occur from November through March and may result in hydrograph peaks during this time period as well.

<b>Stream Flow Data</b>	USGS 13342500, USGS Clearwater River At Spalding, ID, 1976-2005		<b>Acre-Feet</b>
		Average Annual	10,489,131
		Mar-July Average	6,992,076
		Percent of Average Annual	67%



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		<b>CFS</b>	<b>Number</b>	
<b>Irrigated Adjudicated Water Rights</b> <sup>/6)</sup>	Surface Water	162	1289	
	Groundwater	24	278	
	<b>Total Irrigated Adjudicated Water Rights</b>	<b>186</b>	<b>1567</b>	
		<b>MILES</b>	<b>PERCENT</b>	
<b>Stream Data</b>	Total Miles <sup>/8</sup>	5,597	--	
	Water quality impaired streams <sup>/9</sup>	1,649	29%*	
	Anadromous Fish Presence (Streamnet) <sup>/11</sup>	672	12%	
	Bull Trout Presence (Streamnet) <sup>/11</sup>	169	3%	
<i>*Percent of Total Miles of streams in HUC</i>				
		<b>ACRES</b>	<b>PERCENT</b>	
<b>Land Cover/Use</b> <sup>/2</sup> based on a 100 ft. stretch on both sides of all streams in the 100K Hydro Layer	Forest	33,307	42%	
	Grain Crops	22,785	29%	
	Grass/Pasture/Hay Lands	7,481	9%	
	Row Crops	23	<1%	
	Shrub/Rangelands – Includes CRP Lands	12,382	16%	
	Water/Wetlands/Developed/Barren	2,911	4%	
	<b>Total Acres of 100 ft stream buffers</b>	<b>78,889</b>	<b>100%</b>	
<b>Land Capability Class</b> <sup>/4</sup>	<b>I</b> – slight limitations	0		
	<b>II</b> – moderate limitations	136,500	22%	
	<b>III</b> – severe limitations	205,600	34%	
	<b>IV</b> – very severe limitations	223,400	37%	
	<b>V</b> – no erosion hazard, but other limitations	0	0%	
	<b>VI</b> – severe limitations, unsuited for cultivation, limited to pasture, range, forest	28,500	5%	
	<b>VII</b> – very severe limitations, unsuited for cultivation, limited to grazing, forest, wildlife	17,400	3%	
	<b>VIII</b> – misc areas have limitations, limited to recreation, wildlife, and water supply	0	0%	
	<b>Total Crop &amp; Pasture Lands</b>	<b>611,400</b>	<b>100%</b>	
<b>Confined Animal Feeding Operations – Dairies/Feedlots</b> <sup>/12, 13, 26</sup>				
<b>Operation Type</b>	<b>Number</b>	<b>&lt;300</b>	<b>300-999</b>	<b>1000-4999</b>
<b>Dairy</b>	2			
<b>Feedlots</b>	10	8	1	1

## Resource Settings

**Pasture:** Non-irrigated riparian pastures with a growing season of 120 to 185 days. Livestock utilization is from late spring through fall and big game species are present in winter and early spring. Fencing is generally an existing practice. Soils are deep with variable textures and wetland inclusions with slopes from zero to two percent. Annual precipitation is greater than 20 inches with very dry summers. Typically these pastures are adjacent to perennial or intermittent streams. Vegetation ranges from native grass/sedge/rush complexes to improved forage species such as timothy, smooth brome, creeping meadow foxtail, orchard grass and clover.

Upland pastures are located above flood plains on steeper, dissected hill sides or mountain sides. Average annual precipitation is 20 to 30 inches per year. The majority of the precipitation is rain and snow from mid-November to mid-May. Summer months are hot and dry. Soil type is moderately deep to shallow silt loam to gravel. Vegetation is typically introduced species, such as orchard grass and smooth brome. Native species such as bluebunch wheatgrass, Idaho fescue, pine grass, elk sedge and native shrubs and trees may be found at higher elevations along mountain sides. The majority of grazing animals are cattle, sheep and horses. Big game utilize pasture for early spring and winter grazing. Wildlife includes elk, black bear, whitetail and mule deer, and moose.

**Dry Cropland:** Dry cropland with tillage that ranges from conventional to no-till. Conventional tillage, may include a moldboard plow, chisel plow, disk and field cultivator. Transition of cropland to direct seeding practices with longer rotation periods has occurred in much of the watershed over the last decade. Typical rotations are two to three years and consist of winter wheat/summer fallow, winter wheat/lentils or peas, or winter wheat/spring grain/lentils or peas. Precipitation is 15 to 24 inches per year. Fertilizers and pesticides are applied. Soils are typically silt loam cut over timber with slopes ranging from less than five to 25 percent. Wildlife includes deer, elk, moose, small game, upland game and nongame birds.

**Hayland:** Non-irrigated riparian hayland on zero to two percent slopes. Growing season is 120-185 days. Soils are deep with variable textures and wetland inclusions. Annual precipitation is greater than 20 inches with very dry summer months. Typically this hayland is adjacent to perennial or intermittent streams. Fertilizers and/or pesticides are periodically applied. Vegetation ranges from grass/sedge/rush complexes to improved species like timothy, smooth brome, creeping meadow foxtail, orchard grass and clover. Big game species are present in winter and early spring. Forage harvest management is usually an existing practice.

Non-irrigated upland hay is found on slopes ranging from three to thirty percent. Vegetation consists of introduced perennial grasses and legumes. Soils vary from loam to silt loams. Renovations occur every six to ten years. Precipitation is 20 inches or greater. One cutting is common. The growing season is approximately 100 to 160 days long. Small grains and alfalfa hay are grown in rotation, with alfalfa typically maintained for four to six years. Grazing of crop aftermath may occur. Nutrient and pest management may be less than desirable.

## Resource Settings - continued

**Range:** Rangeland vegetation consists of perennial grass and forbs. Most areas have problems with invasive species. There are both cool and warm season grasses. Precipitation is 12 to 25 inches, most of which falls in winter and early spring with periodic summer rains. Topography varies from steep slopes to rims and benches. Soils are loamy to gravelly with slopes from 20 to 60 percent. The average frost free period is 80 to 180 days. Temperatures are mild in the winter and very hot in the summer. Ecological status is typically less at lower elevations and improves with elevation. The typical planning unit is 640 acres. Riparian grazing units exhibit impacts to riparian vegetation and a loss of woody species. Riparian vegetation consists of grasses, sedges, rushes and a variety of woody species. Streams are primarily low gradient and depend on vegetation for stability. These areas are important habitat for a variety of fish and wildlife. Soils vary from gravelly to loamy. Water quality is often a concern for sediment, temperature and nutrients. Moisture for vegetation growth is primarily from high water tables and stream flows. Fencing is generally an existing practice.

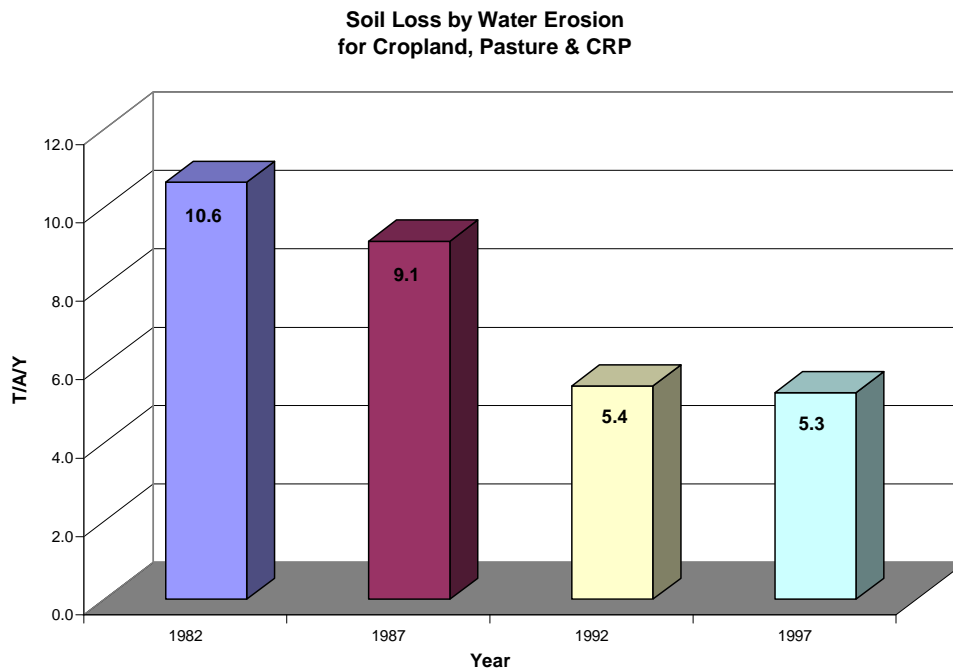
**Forests and Grazed Forests:** The riparian forest consists of mixed conifers and deciduous trees. The associated understory is comprised of grasses and brush species with inclusions of wetter areas. Soils are silt loams and clay loams that are shallow to deep, and can have low to high rock fragment content. They range from somewhat poorly to well drained. Average annual precipitation ranges from 18 to 35 inches. The forest landscape is characterized by level to nearly level landforms. Riparian grazing units typically exhibit impacts to riparian vegetation and a loss of woody species. Important wildlife species include elk, deer, moose, bear, raptors and songbirds; turkey and wolf numbers are increasing within the watershed, as well.

Ponderosa pine and dryer Douglas fir habitat types are found at elevation ranges from 1,800 to 4,000 feet on a variety of soil types. Annual precipitation is less than 25 inches with hot, dry summers. Slopes are less than 35 percent, on average. The forest understory is dominated by snowberry, serviceberry, ninebark/oceanspray and associated brush species. Grass and forb species are common. Livestock grazing occurs during the summer and early fall period, and overgrazing is common

Douglas fir, grand fir, and wetter habitat types are found at elevations greater than 4,000 feet on a variety of soil types. Slopes are generally greater than 35 percent. Annual precipitation is greater than 25 inches, most of which falls in the winter and spring. Summers are warm and relatively dry. The forest understory is dominated by forbs and scattered grass species, with associated brush species such as snowberry, willow and alder. Livestock grazing occurs during the mid-summer and early fall period, and overgrazing is common. Livestock tend to concentrate along the road corridors and riparian areas.

### Resource Concerns

Water erosion on Cropland, Pasture & CRP in this watershed has decreased significantly since 1982. Rates have decreased from about 10.5 tons per acre year in 1982 to approximately 5.5 tons per acre per year in 1997.



Controlling erosion not only sustains the long-term productivity of the land, but also affects the amount of soil, pesticides, fertilizer, and other substances that move into the nation's waters.

Many of the listed streams are impaired by multiple pollutants, primarily bacteria, nutrients, sediment and temperature. Agricultural land uses contribute to water quality impacts. Other pollutant sources include timber harvest activities, stormwater runoff and land development. Flow and habitat alteration problems exist within the watershed.

Sheet, rill, and ephemeral gully erosion are considered a moderate to severe problem associated with dry cropland. Channel erosion occurs throughout the watershed where past channelization, road building, and poor grazing management has altered the natural drainage system hydrology.

Conservation practices that can be used to address these water quality issues include erosion control, grazing management, residue management, and riparian buffers.

No wind erosion data is available for North Idaho.



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**Resource Concerns –continued**

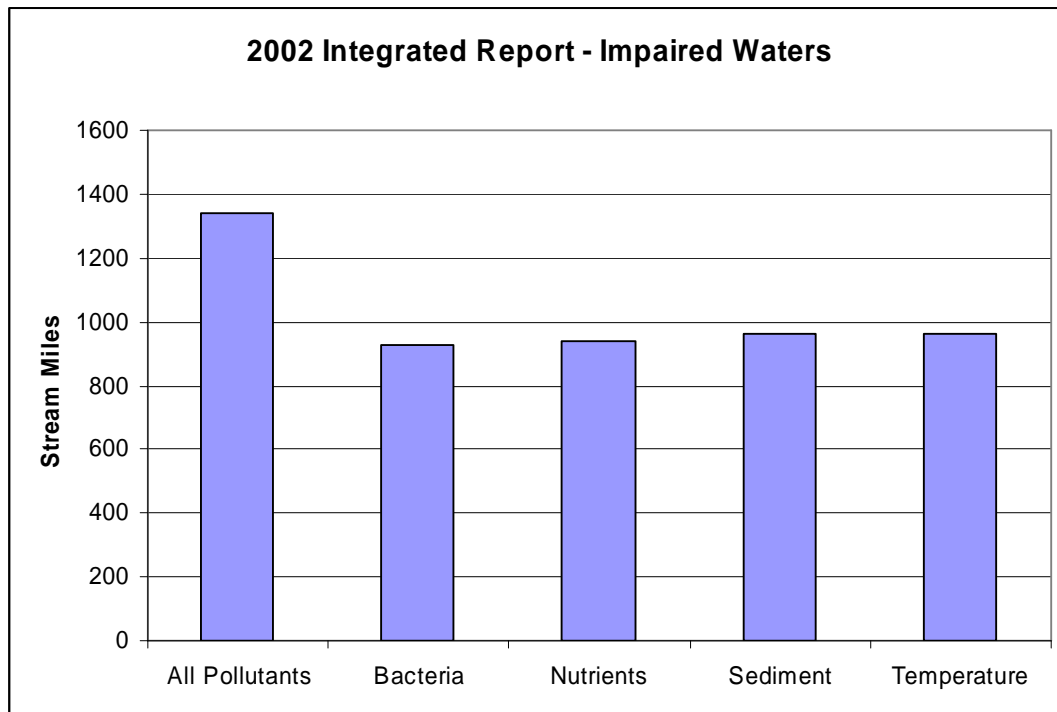
Impacted Water Bodies <sup>/16.19</sup> (ID 17060306)	Stream Miles*	Bacteria	Nutrients	Sediment	Temperature	Dissolved Oxygen	Other or Unknown
Bedrock Creek	25.2	X	X	X	X	X	X
Big Bear Creek	18.1				X		
Boulder Creek	14.0						X
Catholic Creek	16.1						X
Clearwater River	36.9	X	X	X	X	X	X
Corral Creek	29.9				X		
East Fork Potlatch River	4.7	X	X	X	X		
Grasshopper Creek	4.3			X			
Hatwai Creek	39.7	X	X		X		
Holes Creek	28.8	X	X	X		X	X
Jim Brown Creek	54.5	X	X	X	X		
Jim Ford Creek	12.2			X			
Lapwai Creek	20.1	X	X	X	X	X	X
Lawyer Creek	259.6	X	X	X	X	X	X
Lindsay Creek	27.4	X	X	X	X		X
Lolo Creek	85.0	X	X	X	X		X
Long Hollow Creek	36.7	X	X	X		X	X
Middle Potlatch Creek	60.3	X	X	X	X		
Moose Creek	19.4	X	X	X	X		X
Shanghai Creek	144.8						X
Orofino Creek	18.7				X		
Pine Creek	71.5	X	X	X	X	X	X
Potlatch River	119.9	X	X	X	X	X	X
Ruby Creek	2.1	X	X	X	X		
Sevenmile Creek	26.0			X			
Sixmile Creek	33.4	X	X	X	X	X	X
Sweetwater Creek	57.6	X	X	X	X	X	X
Webb Creek	34.9	X	X	X	X	X	
Whiskey Creek	20.8	X					
Yakus Creek	20.6			X			
<b>Total Stream Miles:</b>	<b>1343.2</b>						

Shading indicates TMDL in place

Shading indicates TMDL in progress

\* total of all listed segments on each creek named





IDEQ, 2002 Integrated Report, May 2005.<sup>9</sup>

### ***Watershed Projects, Plans, Studies and Assessments***

#### **NRCS Watershed Projects** [/14.15](#)

Bedrock Creek (active)

Mission-Lapwai Creek (active)

#### **NRCS Watershed Plans, Studies and Assessments** [/14.15.18](#)

Long Hollow River Basin Study (1984)

Lolo Creek River Basin Study (1981)

Mission-Lapwai Creek River Basin Study (1985)

Potlatch River Basin Study (planning active)

Bedrock Creek Watershed Assessment. (1994).

Lapwai Creek Watershed Assessment. (2000)

Preliminary Investigation Report for the Potlatch River (1994)

Middle Potlatch Creek Initial Assessment. (1992)

Lewiston Orchards Irrigation District Initial Assessment. (1992)

Orofino Creek Initial Assessment. (1992)

Bedrock Creek Watershed Plan – Environmental Assessment. (1992)

Preauthorization Report for the Bedrock Creek Watershed. (1992)

Big Canyon Creek Environmental Assessment Final Planning Report. (1995)

Preauthorization Report for the Mission-Lapwai Creek Watershed. (1988)

Supplemental Watershed Protection Plan-Environmental Assessment–Bedrock Creek Watershed. (1996)

Supplemental Watershed Protection Plan – Environmental Assessment for the Lapwai Creek Watershed. (2000)



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### ***Watershed Projects, Plans, Studies and Assessments-continued***

#### **NWPCC**<sup>/18</sup>

Clearwater Subbasin Management Plan (2004)

#### **BLM**<sup>/18</sup>

Clearwater River, North Fork Clearwater River, and Middle Fork Clearwater River Subbasins:  
Biological Assessment of Ongoing and Proposed Bureau of Land Management  
Activities on all salmonids and BLM Sensitive Species. (2000)

#### **Bonneville Power Administration Funded Watershed Projects**<sup>/18</sup>

Big Canyon Creek (NPT and Nez Perce SWCD ongoing)

Little Canyon Creek (LSCD complete)

Potlatch River (Latah SWCD ongoing)

#### **USFS**<sup>/18</sup>

Clearwater National Forest. (2000). Eldorado Creek – Ecosystem Assessment at the  
Watershed Scale (EAWS).

Clearwater National Forest. (1997). Clearwater Subbasin Ecosystem Analysis at the  
Watershed Scale. Orofino, ID. Pertains to Lolo Creek, Orofino Creek, and the Potlatch  
River watersheds

Clearwater National Forest. (1997). Potlatch River Above Bovill Ecosystem Analysis at the  
Watershed Scale. Palouse Ranger District.

Clearwater National Forest. (1998). West Fork Potlatch Draft Environmental Impact  
Statement.

#### **NMFS**<sup>/31</sup>

Lewiston Orchards Project Steelhead Biological Opinion and Consultation (2006)

#### **IDEQ TMDLs**<sup>/16</sup>

Jim Ford Creek TMDL (2000)

Winchester Lake TMDL (1999)

Lolo Creek TMDL (in progress)

Lindsay Creek TMDL (in progress)

Lapwai Creek TMDL (in progress)

Nez Perce Tribal Lands TMDLs (in progress)

#### **SCC TMDL Agricultural Implementation Plans**<sup>/16</sup>

Winchester Lake (complete)

Jim Ford Creek (complete)

Holes/Long Hollow/Little Canyon (complete)

Lawyers Creek (complete)

#### **IDEQ/SWCD 319 Projects**<sup>/17</sup>

Winchester Lake (complete)

North Idaho Division II AFO (active)

Jim Ford Watershed Enhancement (completed)

Camas Prairie Groundwater Nitrate (active)

Lindsey Creek

#### **SCC/SWCD WOPA Projects**<sup>/10</sup>

Winchester Lake (complete)

North Idaho Division II AFO (active)

Jim Ford Watershed Enhancement (complete)

Camas Prairie Groundwater Nitrate (active)



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***Watershed Projects, Plans, Studies and Assessments-continued***

Big Canyon (complete)  
Little Canyon /Holes and Long Hollow Creeks (active)  
Lolo Creek (complete)

**SCC/IDEQ SAWQP Projects** /10

Aspendale  
Lenville  
Lapwai  
Mission

**ISDA Regional Water Quality Studies** /20

Clearwater Plateau Aquifer (on-going)  
Synoptic Evaluation of Pesticide Concentrations, Clearwater Basin (on-going)

**IASCD Monitoring Projects** /34

Jim Ford Creek Water Quality Monitoring Report, 2003-2004  
Little Canyon/Holes/Long Hollow Water Quality Monitoring Report, 2002

**Other State Assessments** /27,28

Hydrologic and Sediment Delivery Analysis of Agriculturally Dominated Watersheds in the Clearwater River Basin (Jan Boll - ISCC 2002)  
Beneficial use reconnaissance project: Potlatch River watershed. Water quality summary report no. 31. (IDEQ 1994)

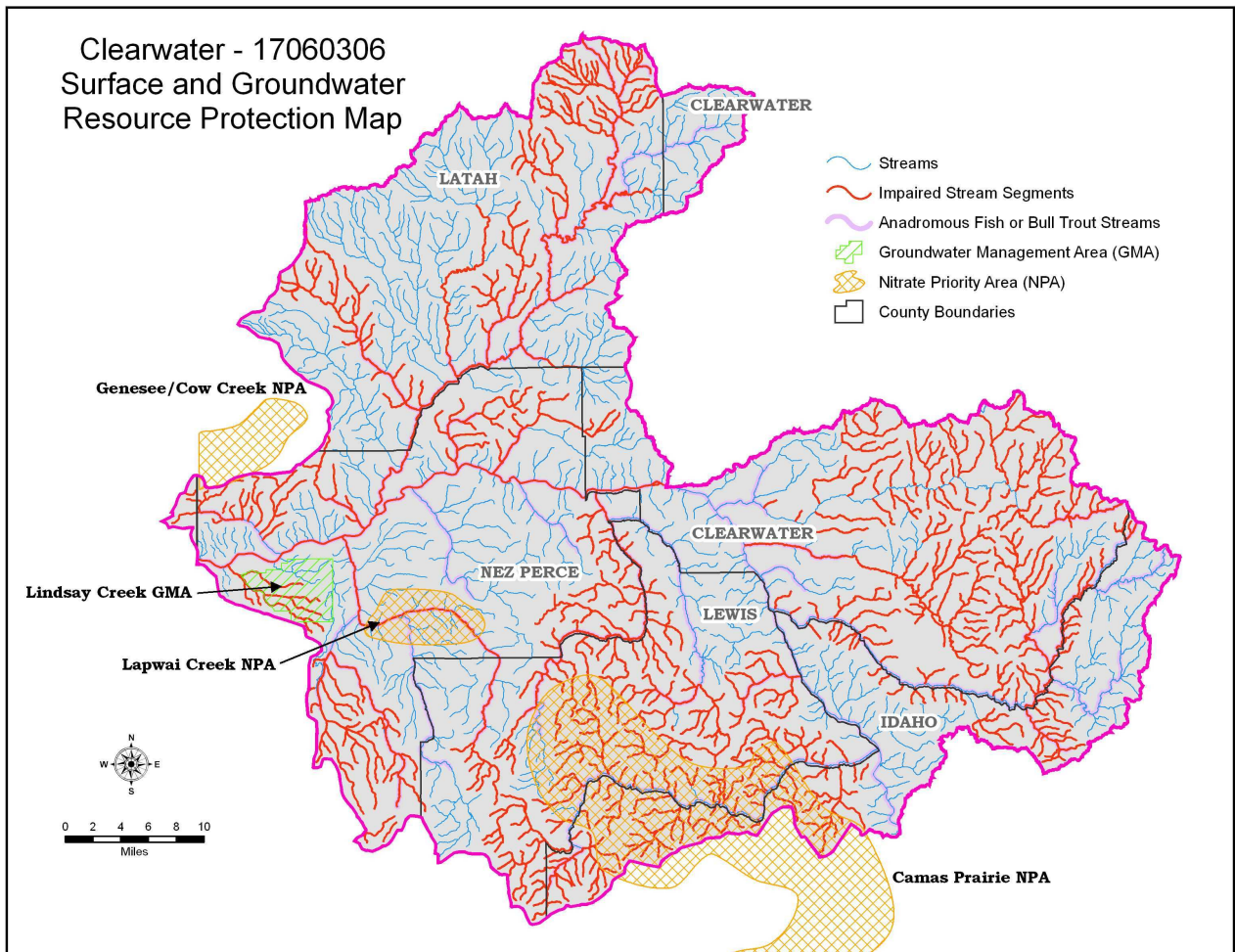
**SWCD Plans** /18

Latah SWCD. (2006) Potlatch River Watershed Management Plan  
Clearwater SWCD. (1986). Bedrock Creek and the North Corridor of the Clearwater Watershed.  
Latah SWCD. (1987). Little Potlatch Creek Planning Phase Final Report.  
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Nez Perce SWCD. Pine Creek Project Plan for the Idaho State Water Quality Program. (1988)  
Nez Perce SWCD. (2002) Hatwai Creek Watershed Preliminary Investigation.  
Nez Perce SWCD. (1995) Big Canyon Creek Environmental Assessment. Lewiston, Idaho.  
Nez Perce SWCD. (1995) Big Canyon Water Quality Project Plan.

**Nez Perce Tribe Watershed Division** /32,33

Big Canyon Aquatic Assessment (2002)  
Lapwai Creek (2002)  
Nez Perce Tribal Lands TMDLs (in progress)

**Surface and Groundwater Resource Protection**





**Resource Concerns – continued**

Resource Concerns/ Issues by Land Use								
SWAPA <u>Soil, Water, Air, Plants,</u> <u>Animals</u>	Specific Resource Concerns/Issues	Pasture	Hayland	Dry Crops	Surface Irrigated Crops	Sprinkler Irrigated Crops	Rangeland	Grazed or Ungrazed Forest
Soil Erosion	Sheet and rill			x				
	Ephemeral or classic gully			x				
	Wind							
	Streambank	x	x	x			x	x
Water Quantity	Inefficient use on irrigated lands							
Water Quality, Surface	Suspended sediment	x	x	x			x	x
	Nutrients and organics	x	x	x			x	x
Water Quality, Ground	Nutrients and organics			x				
	Pesticides			x				
Soil Condition	Organic matter depletion			x				
	Compaction	x		x			x	x
Plant Condition	Productivity, health and vigor	x	x				x	x
	Plants not adapted or suited	x	x				x	x
	Noxious and invasive plants	x	x				x	x
	Wildfire hazard						x	x
Domestic Animals	Inadequate feed or water	x					x	x
Fish and Wildlife	Inadequate water			x				
	Inadequate cover/shelter	x	x	x			x	x

**Human considerations:** Implementation of conservation practices and enhancement has the potential for change in management and cost of production. Installation of practices will have an upfront cost and require maintenance. In the short run increased management may be required as new techniques are learned. Land may be taken out of production for installation of practices or conversion to other uses, such as wildlife habitat. Long term benefits should result from increased soil health, benefits to water quality and wildlife habitat.

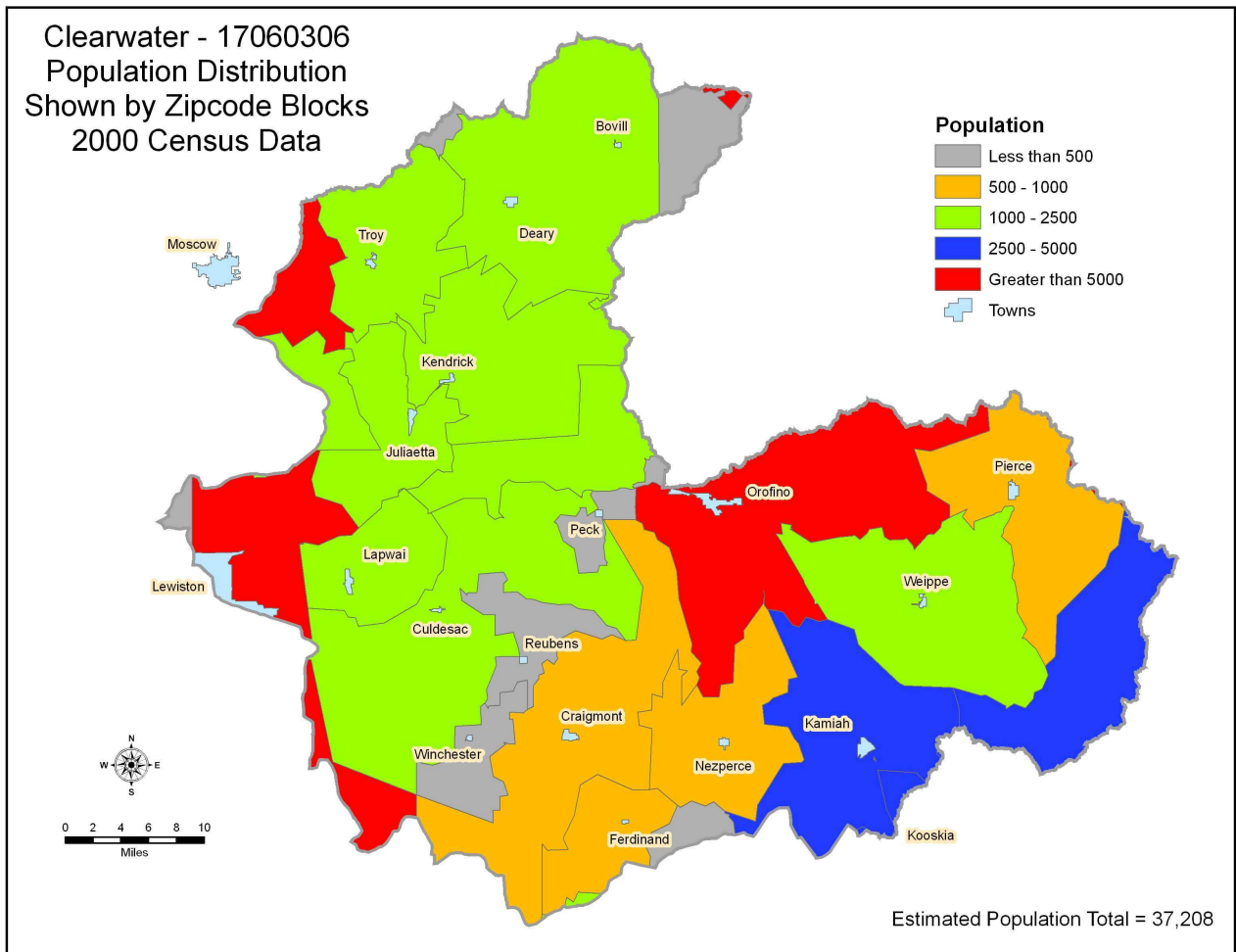
FEDERALLY LISTED THREATENED AND ENDANGERED SPECIES <sup>/11, 36</sup>	
<b>Threatened Species</b>	<b>Candidate Species</b>
<b>Mammals</b> – Lynx, Gray Wolf <b>Birds</b> – Bald Eagle <b>Fish</b> – Bull Trout, Chinook Salmon, Steelhead <b>Invertebrates</b> – None <b>Plants</b> – Spaulding’s Silene	<b>Fish</b> - None <b>Birds</b> – None  <b>PROPOSED SPECIES</b> None
<b>ESSENTIAL FISH HABITAT</b> – Coho & Chinook Salmon	<b>CRITICAL FISH HABITAT</b> - Steelhead, Fall Chinook

**Census and Social Data** [/26](#)

**Population: 37,208**

**Number of Farms: 1109**

	0-49 acres	50-999 acres	1000+ acres
Number of Farms	346	552	211





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### Census and Social Data - continued

Fifty seven percent of farm operators are farmers by occupation. The remaining operators have off-farm jobs as their primary occupation. The majority of operators are male but women make up 30% of the total. Ninety-eight percent of all operators are white. Non-white operators are of Hispanic, American Indian and Asian background.

Farm size ranges from less than 10 acres to more than 1,000 acres with an average of 720 acres. Agricultural land in the watershed is a mix of woodland, cropland, range, pasture and hayland. Land users in the watershed utilize EQIP, CRP, Continuous CRP, WHIP and other federal programs to implement conservation plans as well as the State of Idaho WQPA , 319, HIP, CPI, LIP, and SWG programs.

Farm size, market value of production and government payments to farmers are up over the past several years. Farm sales range from less than \$1,000 to more than \$500,000 per year. Seventy-six percent of farms reported sales of less than \$50,000 per year.

The Census of Agriculture is authorized under PL 105-113 and uses the definition of a farm as any place from which \$1,000 or more of agricultural products are produced or sold, or normally would have been sold, during the census year.

	Number of farms	Average size farm	Market Value of Production (Average Farm)	Government Payments (Average Farm)
1997	1130	660	\$65,300	\$10,300
2002	1110	720	\$78,700	\$13,900
Change	-1.8%	9.1%	20.5%	35%

#### Economic Profile:

	Watershed	Idaho	United States
Population (2000)	37,208		
Per Capita Personal Income (2002)	\$24,400	\$25,476	\$30,906
Median Home Value (2000)	\$97,900	\$106,300	\$119,600
Percent Unemployment (2004)	5.6%	4.7%	5.5%
Percent Below Poverty Level (2003)	12.9%	11.8%	12.5%



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**Progress/Status**

PRS DATA					
Conservation Treatment Applied	FY04	FY05	FY06	Avg/Year	Total
Critical Area Planting (ac)	505	1		169	506
Diversion (ft)	300			100	300
Fence (ft)	18,058	17,464	26,759	20,760	62,281
Filter Strip (ac)	6		17	8	23
Firebreak (ft)	3,550	7,106	35,357	15,338	46,013
Grade Stabilization Structure (no)	1	2	1	1	4
Nutrient Management (ac)	9,192	7,301	5,117	7,203	21,610
Pasture and Hay Planting (ac)	301	339		213	640
Pest Management (ac)	4,495	3,620	4,822	4,312	12,937
Pipeline (ft)	7,794	4,528	6,353	6,225	18,675
Pond (no)	15	5		7	20
Prescribed Grazing (ac)	740	182	2,230	1,051	3,152
Prescribed Grazing (ac)	560	20		193	580
Pumping Plant (no)	1		2	1	3
Range Planting (ac)	39		385	141	424
Residue Management (ac)	12,164	8,650	4,952	8,589	25,766
Riparian Forest Buffer (ac)			45	15	45
Riparian Herbaceous Cover (ac)			34	11	34
Sediment Basin (no)	2			1	2
Spring Development (no)	4	2	2	3	8
Tree/Shrub Establishment (ac)	458	489	46	331	993
Underground Outlet (ft)			6,640	2,213	6,640
Upland Wildlife Habitat Management (ac)	1,187	10,517	4,053	5,252	15,757
Use Exclusion (ac)	6,616	6,824	1,766	5,069	15,206
Waste Storage Facility (no)	3	4		2	7
Waste Utilization (ac)		24		8	24
Water and Sediment Control Basin (no)	2	2	2	2	6
Water Well (no)	2	1	2	2	5
Watering Facility (no)	17	19	14	17	50
Wetland Practices (ac)	14	22	278	105	314
Wildlife Watering Facility (no)		3	6	3	9
Windbreak/Shelterbelt Establishment (ft)			4,211	1,404	4,211





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## **Progress/Status - continued**

Progress in the last three years has been focused on:

- ~ erosion control
- ~ nutrient management

Resource concerns that require ongoing attention:

- ~ erosion control
- ~ nutrient management
- ~ prescribed grazing
- ~ riparian area improvement
- ~ water quality & water quantity

## **Lands Removed from Production through Farm Bill Programs**

- Conservation Reserve Program (CRP): 50,358 acres
- Wetland Reserve Program (WRP): 95 acres



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## Footnotes/Bibliography

All data is provided "as is". There are no warranties, express or implied, including warranty of fitness for a particular purpose, accompanying this document. Use for general planning purposes only.

1. Ownership Layer – Source: This spatial data contains surface management land status (sometimes known as "ownership") and Public Land Survey System (PLSS) information for Idaho. The Bureau of Land Management (BLM) in Idaho creates and maintains these spatial data layers. The primary source of the spatial features is the BLM Geographic Coordinate Database (GCDB), which contains official survey records and corresponding geodetic control information maintained by the BLM Cadastral program. In areas where GCDB records are unavailable, the spatial features are taken from a variety of sources including the BLM Idaho Resource Base Data collection, US Geological Survey Digital Line Graphs (DLGs), and US Forest Service Cartographic Feature Files (CFFs), among others. The source of the attribute information is the BLM Master Title Plats (MTPs) and careful cooperation with other government agencies that own or manage land parcels. The layer is available from the Inside Idaho (Interactive Numeric & Spatial Information Data Engine): <http://inside.uidaho.edu> For current ownership status, consult official records at appropriate federal, state or county offices. Ownership classes grouped to calculate Public Ownership vs. Private Ownership.
2. National Land Cover Dataset (NLCD): NLCD 92 (National Land Cover Data 1992) is a 21-category land cover classification scheme that has been applied consistently over the conterminous U.S. It is based primarily on the unsupervised classification of Landsat TM (Thematic Mapper) 1992 imagery. Ancillary data sources included topography, census, agricultural statistics, soil characteristics, other land cover maps, and wetlands data. The NLCD 92 classification is provided as raster data with a spatial resolution of 30 meters. The layer is available from: <http://edcwww.cr.usgs.gov/products/landcover/nlcd.html>  
Description: Abstract: These data can be used in a geographic information system (GIS) for any number of purposes such as assessing wildlife habitat, water quality, pesticide runoff, land use change, etc. The State data sets are provided with a 300 meter buffer beyond the State border to facilitate combining the State files into larger regions.
3. Farm Services Agency, USDA, 2005. CRP acres from GIS (CLU) database.
4. ESTIMATES FROM THE 1997 NRI DATABASE (REVISED DECEMBER 2000) REPLACE ALL PREVIOUS REPORTS AND ESTIMATES. Comparisons made using data published for the 1982, 1987, or 1992 NRI may produce erroneous results. This is due to changes in statistical estimation protocols, and because all data collected prior to 1997 were simultaneously reviewed (edited) as 1997 NRI data were collected. All definitions are available in the glossary. In addition, this December 2000 revision of the 1997 NRI data updates information released in December 1999 and corrects a computer error discovered in March 2000. For more information: <http://www.nrcs.usda.gov/technical/NRI/>
5. PRISM Climate Mapping Project. Annual precipitation data.  
See [http://www.ocs.orst.edu/prism\\_new.html](http://www.ocs.orst.edu/prism_new.html) for further information.
6. Irrigated Adjudicated Water Rights – Idaho Department of Water Resources  
<http://www.idwr.idaho.gov/water/srba/mainpage/>
7. USGS Idaho Streamflows, gaging station data (<http://waterdata.usgs.gov/id/nwis/sw/>) and estimates for ungaged streams based on statistical data (<http://streamstats.usgs.gov/html/idaho.html>).
8. National Hydrology Dataset (NHD). Developed by the US Geological Survey in cooperation with U.S. Environmental Protection Agency and other state and local partners (<http://nhd.usgs.gov>).
9. IDEQ. 2002 Integrated Report (approved December 2005).  
[http://www.deq.idaho.gov/water/data\\_reports/surface\\_water/monitoring/integrated\\_report.cfm](http://www.deq.idaho.gov/water/data_reports/surface_water/monitoring/integrated_report.cfm).
10. Idaho Soil Conservation Commission (SCC), Water Quality Program for Agriculture (WQPA).  
<http://www.scc.state.id.us/waq.htm>



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11. StreamNet is a cooperative venture of the Pacific Northwest's fish and wildlife agencies and tribes and is administered by the [Pacific States Marine Fisheries Commission](#). Streamnet provided data and data services in support of the region's Fish and Wildlife Program and other efforts to manage and restore the region's aquatic resources. Official Streamnet website: <http://www.streamnet.org/>
12. (Dairy) Idaho Department of Water Resources: [http://www.idwr.state.id.us/gisdata/gis\\_data-new.htm](http://www.idwr.state.id.us/gisdata/gis_data-new.htm)
13. (Feedlot) Idaho State Department of Agriculture: <http://www.agri.state.id.us/> FOIA request.
14. Natural Resource Conservation Service, Watershed Projects Planned and Authorized, <http://www.nrcs.usda.gov/programs/watershed>
15. Natural Resource Conservation Service, Watershed Plans, Studies and Assessments completed, [http://www.nrcs.usda.gov/programs/watershed/Surveys\\_Plng.html#Watershed%20Surveys%20and%20Plan](http://www.nrcs.usda.gov/programs/watershed/Surveys_Plng.html#Watershed%20Surveys%20and%20Plan)
16. Idaho Department of Environmental Quality (IDEQ), Surface Water Quality: Subbasin Assessments, TMDLs, and Implementation Plans. [http://www.deq.state.id.us/water/data\\_reports/surface\\_water/tmdls/sba\\_tmdl\\_master\\_list.cfm](http://www.deq.state.id.us/water/data_reports/surface_water/tmdls/sba_tmdl_master_list.cfm)
17. Idaho Department of Environmental Quality, Watershed protection: Nonpoint source management (319 grant), Reports and program resources. [http://www.deq.state.id.us/water/data\\_reports/surfacewater.nps/reports/cfm](http://www.deq.state.id.us/water/data_reports/surfacewater.nps/reports/cfm)
18. Subbasin assessments and plans are developed by local groups (SWCDs, Watershed Councils, Tribes and others) as part of the Northwest Power and Conservation Council's fish and wildlife program in the Columbia River Basin. This program is funded and implemented by the Bonneville Power Administration. <http://www.nwcouncil.org/fw/subbasinplanning/Default.htm>
19. Idaho Soil Conservation Commission (SCC), TMDL watershed implementation plans: agricultural component [http://www.deq.state.id.us/water/data\\_reports/surface\\_water/nps/reports.cfmponent](http://www.deq.state.id.us/water/data_reports/surface_water/nps/reports.cfmponent). <http://www.scc.state.id.us/PDF/Ag%Component%20Status%20Report%20-%202004.pdf>
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22. 303d Listed Streams designated by the Idaho Department of Environmental Quality (1998) and approved by the Environmental Protection Agency, Section 303d Clean Water Act 23. Groundwater Management Areas and Critical Groundwater Management Areas designated by the Idaho Department of Water Resources. <http://www.idwr.idaho.gov/hydrologic/projects/gwma/>
23. Groundwater Management Areas and Critical Groundwater Management Areas designated by the Idaho Department of Water Resources. <http://www.idwr.idaho.gov/hydrologic/projects/gwma>
24. Nitrate Priority Areas. IDEQ has developed a list of degraded ground water areas. This list focuses on nitrate and ranks the top 25 nitrate-degraded areas (referred to as "nitrate priority areas") in the state based on the severity of the degradation, the population affected, and the trend; the rank of "1" indicates the most severely impacted area in the state. [http://www.deq.state.id.us/water/prog\\_issues/ground\\_water/nitrate.cfm#ranking](http://www.deq.state.id.us/water/prog_issues/ground_water/nitrate.cfm#ranking)
25. NRCS Field Office Technical Guide, Section II, Threatened and Endangered List and the Idaho Conservation Data Center, Idaho Department of Fish and Game <http://fishandgame.idaho.gov/cms/tech/CDC/>



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26. Data were taken from the 2002 Agricultural Census and adjusted by percent of HUC in the county or by percent of zip code area in the HUC, depending on the level of data available. Data were also taken from the U.S. Census, 2000 by zip code and adjusted by percent of zip code in the HUC.  
[http://www.nass.usda.gov/Census\\_of\\_Agriculture/Census\\_by\\_State/Idaho/index.asp](http://www.nass.usda.gov/Census_of_Agriculture/Census_by_State/Idaho/index.asp)
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30. Idaho Department of Water Resources. 2005. Snake River Basin Adjudication. Draft Lawyer Creek watershed workplan.
31. National Marine Fisheries Service Northwest Region. 2006. Endangered Species Act section 7 forma consultation biological opinion and Magnuson-Stevens fishery conservation and management act essential fish habitat consultation for the operation and maintenance of the Lewiston Orchards project Snake River steelhead Sweetwater, Webb, and Lapwai Creeks, Clearwater River Basin HUC 17060306 Nez Perce County, Idaho.
32. Nez Perce Tribe watershed division. 2002. Big Canyon Creek aquatic assessment. Prepared by Ecovista.
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<http://www.agri.state.id.us/Categories/Environment/water/swReports.php>
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### **Future Conservation Needs**

The following Tables are an estimate of the future needs of conservation practices in the watershed.

Estimates of future needs in the watershed are based on the following factors:

1. Estimates of total conservation needs based on benchmark conditions in the watershed
2. Present level of conservation installation reported in the NRCS web based reporting system
3. Local knowledge of the area, past and ongoing project activities and professional judgement
4. Practices previously installed which have exceeded their expected life (life span), are no longer accomplishing the conservation objective, and may need to be replaced or upgraded



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### Conservation Activities for Dry Cropland\*

*\*The following Current Conditions Tables have been developed to estimate the present level of conservation installed within the HUC, based on what has been reported in the PRMS and PRS Reporting system for the Years 2004 through 2006.*

<b>Current Conditions</b>		Total Acres	Riparian Acres
Total Dry Cropland		513,128	22,808
Typical Management Unit/Ownership		720	
Current Farm Bill Participation		20%	

Current Level of Treatment for Dry Cropland												
Dry Cropland	Quantity		Costs		Effects				Implementation			
Practices	Unit	Quantity	Additional Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
<b>Dry Cropland</b>	Ac.	513,128			-1	±	-2	-2				
Comp. Nutrient Mgmt. Plan (100)	No.	2	\$ -	\$ 2,000					X			X
Conservation Cover (327)	Ac.	28,138	\$ -	\$ 84,410					X	X		X
Conservation Crop Rotation (328)	Ac.	14,425	\$ -	\$ -								
Contour Farming (330)	Ac.	14,468	\$ -	\$ 36,170					X			X
Forage Harvest Management (511)	Ac.	66	\$ -	\$ -								
Grade Stabilization Structure (410)	No.	4	\$ -	\$ 80					X			X
Grassed Waterway (412)	Ac.	2	\$ -	\$ 70					X	X		X
Nutrient Management (590)	Ac.	19,449	\$ -	\$ 97,250					X			X
Pest Management (595)	Ac.	6,469	\$ -	\$ 64,690					X			X
Residue Mgmt. NoTill, Strip Till, Direct Seed (329)	Ac.	21,865	\$ -	\$ 655,950					X			X
Residue Mgmt. Mulch Till (345)	Ac.	3,901	\$ -	\$ 58,520					X			X



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**Conservation Activities for Dry Cropland\*- Continued**

Current Level of Treatment for Dry Cropland												
Dry Cropland	Quantity		Costs		Effects				Implementation			
Practices	Unit	Quantity	Additional Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Sediment Basin (350)	No.	2	\$ -	\$ 150					X			X
Subsurface Drain (606)	Ft.	4,648	\$ -	\$ 350					X			X
Upland Wildlife Habitat Mgmt (645)	Ac.	6,303	\$ -	\$ 31,520					X	X		X
Windbreak/Shelterbelt Estab. (380)	Ft.	4,211	\$ -	\$ 190					X	X		X
Wtr. & Sediment Control Basin(638)	No.	6	\$ -	\$ 200					X			X
<b>Total RMS Costs</b>			<b>\$ -</b>	<b>\$1,031,550</b>								



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### Conservation Activities for Dry Cropland\*- Continued

Future Conditions	Total Acres	Riparian Acres
Total Dry Cropland	490,320	
Conversion to Riparian RMS	22,808	22,808
Total Acres	513,128	

Project Future Level of Treatment for Dry Cropland												
Dry Cropland	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
<b>Dry Cropland</b>	Ac.	513,128			+3	±	+2	+3				
Comp. Nutrient Mgmt. Plan (100)	No.	50	\$ 144,000	\$ 48,000								
Conservation Cover (327)	Ac.	102,606	\$ 7,446,800	\$ 4,020					X	X		X
Conservation Crop Rotation (328)	Ac.	461,725	-	-					X	X		X
Contour Farming (330)	Ac.	461,725	\$ 3,354,400	\$ 1,118,140					X			X
Diversion (362)	Ft.	264,582	\$ 727,600	\$ 40,020					X			X
Forage Harvest Management (511)	Ac.	205,211							X			X
Grade Stabilization Structure (410)	No.	801	\$ 1,594,000	\$ 15,940					X			X
Grassed Waterway (412)	Ac.	3,044	\$ 5,475,600	\$ 109,510					X	X		X
Nutrient Management (590)	Ac.	461,725	\$ 6,634,100	\$ 2,211,380					X			X
Pest Management (595)	Ac.	461,725	\$ 13,657,700	\$ 4,552,560					X			X
Residue Mgmt. NoTill, Strip Till, Direct Seed (329)	Ac.	256,514	\$ 21,118,400	\$ 7,039,470					X			X
Residue Mgmt. Mulch Till (345)	Ac.	256,514	\$ 11,367,600	\$ 3,789,200					X			X





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**Conservation Activities for Dry Cropland\*- Continued**

Project Future Level of Treatment for Dry Cropland												
Dry Cropland	Quantity		Costs		Effects				Implementation			
Practices	Unit	Quantity	Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Sediment Basin (350)	No.	1,603	\$ 4,002,500	\$ 120,080					X			X
Subsurface Drain (606)	Ft.	20,809	\$ 32,300	\$ 970					X			X
Upland Wildlife Habitat Mgmt (645)	Ac.	76,954	\$ 1,059,800	\$ 353,260					X			X
Water & Sediment Control Basin (638)	No.	3,206	\$ 3,520,000	\$ 105,600					X			X
Prescribed Burning (338)	Ac.	25651	\$ 1,282,600	\$ 25,650					X			X
<b>Total RMS Costs</b>			<b>\$ 81,417,400</b>	<b>\$19,533,800</b>								



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### Conservation Activities for Dry Cropland\*- Continued

Current Level of Treatment for Dry Cropland Riparian												
Dry Cropland	Quantity		Costs		Effects				Implementation			
Practices	Unit	Quantity	Additional Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
<b>Dry Cropland Riparian</b>	Ac.	22,808			-1	±	-2	-2				
Access Road (560)	Ft.	354	\$ -	\$ 800					X			X
Channel Bank Vegetation (322)	Ac.	3	\$ -	\$ 180					X	X		X
Critical Area Planting (342)	Ac.	51	\$ -	\$ 730					X	X		X
Fence (382)	Ft.	6,228	\$ -	\$ 250					X	X		X
Pipeline (516)	Ft.	1,868	\$ -	\$ 100					X			X
Pond (378)	No.	6	\$ -	\$ 360					X	X		X
Riparian Forest Buffer (391)	Ac.	5	\$ -	\$ 80					X	X		X
Riparian Herbaceous Cover (390)	Ac.	4	\$ -	\$ 10					X	X		X
Streambank/Shoreline Prot. (580)	Ft.	38	\$ -	\$ 30					X	X		X
Tree/Shrub Establishment (612)	Ac.	99	\$ -	\$ 450					X	X		X
Use Exclusion (472)	Ac.	152	\$ -	\$ 160					X			X
Wetland Creation (658)	Ac.	1	\$ -	\$ 70					X	X		X
Wetland Wildlife Hab. Mgmt (644)	Ac.	30	\$ -	\$ 150					X	X		X
<b>Total RMS Costs</b>			\$ -	\$ 3,370								



Idaho

## Clearwater - 17060306 8 Digit Hydrologic Unit Profile

December 2006

### Conservation Activities for Dry Cropland\*- Continued

Project Future Level of Treatment for Dry Cropland Riparian												
Dry Cropland Riparian	Quantity		Costs		Effects				Implementation			
Practices	Unit	Quantity	Investment Cost	Annual O&M and Mngt.Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Dry Cropland Riparian	Ac.	22,800			+2	±	+2	+3				
Channel Bank Vegetation (322)	Ac.	2,280	\$ 6,831,000	\$ 136,620					X	X		X
Critical Area Planting (342)	Ac.	5,130	\$ 2,412,500	\$ 72,380					X	X		X
Filter Strip (393)	Ac.	5,700	\$ 570,000	\$ 11,400					X			X
Riparian Forest Buffer (391)	Ac.	1,140	\$ 1,702,500	\$ 17,030					X	X		X
Riparian Herbaceous Cover (390)	Ac.	1,140	\$ 340,800	\$ 3,410					X	X		X
Sediment Basin (350)	No.	142	\$ 355,000	\$ 10,650					X			X
Streambank/Shoreline Prot. (580)	Ft.	522,403	\$ 23,506,400	\$ 2,350,640					X			X
Tree/Shrub Establishment (612)	Ac.	1,382	\$ 577,400	\$ 5,770					X	X		X
Wetland Enhancement (659)	Ac.	25	\$ 50,000	\$ 500					X	X		X
Wetland Wildlife Hab. Mgmt.(644)	Ac.	25	\$ -	\$ 130					X	X		X
Windbreak/Shelterbelt Estab.(380)	Ft.	3,563	\$ 16,000	\$ 160					X	X		X
Channel Stabilization (584)	Ft.	104,481	\$ 2,089,600	\$ 10,450					X			X
<b>Total RMS Costs</b>			<b>\$ 38,451,200</b>	<b>\$ 2,619,140</b>								



Idaho

**Clearwater - 17060306**  
8 Digit Hydrologic Unit Profile

December 2006

**Conservation Activities for Dry Cropland\*- Continued**

<b>Potential RMS Effects for Dry Cropland</b>			
<b>Cost Items and Programs</b>		<b>Costs</b>	<b>O&amp;M Costs</b>
Non Farm Bill Programs		\$29,967,200	\$5,538,200
Potential Farm Bill Programs		\$89,901,400	\$16,614,700
Operator O&M and Management Cost			\$22,152,900
Annual Management Incentives ( 3yrs - Incentive Payments)		\$57,336,000	
Operator Investment		\$38,108,600	
Federal Costshare		\$24,424,000	
<b>Total RMS Costs</b>		<b>\$119,868,600</b>	<b>\$22,152,900</b>
Estimated Level of Participation			75%
Total Acres in RMS System			384,800
Anticipated Cost at Estimated Level of Participation			\$89,901,500
Participating landowners will be in compliance with TMDLs			
Improves habitat for ESA endangered and threatened species			



Idaho

## Clearwater - 17060306 8 Digit Hydrologic Unit Profile

December 2006

### Conservation Activities for Grass/Pasture/Hayland

Current Conditions	Total Acres	Riparian Acres
Total Grass/Pasture/Hay Lands	143,945	7,005
Typical Management Unit/Ownership	720	
Current Farm Bill Participation	20%	

Current Level of Treatment for Grass/Pasture/Hay Lands												
Grass/Pasture/Hay Lands	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Additional Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Grass/Pasture/Hay Lands	Ac.	143,945			-1	+	-2	-2				
Access Road (560)	Ft.	3,186	\$ -	\$ 7,170					X			X
Diversion (362)	Ft.	300	\$ -	\$ 20					X			X
Fence (382)	Ft.	31,141	\$ -	\$ 1,250					X	X		X
Filter Strip (393)	Ac.	23	\$ -	\$ 50					X	X		X
Fire Break (394)	Ft.	23,006	\$ -	\$ 8,880					X			X
Nutrient Management (590)	Ac.	2,161	\$ -	\$ 10,810					X			X
Pasture/Hayland Planting (512)	Ac.	640	\$ -	\$ 640					X			X
Pest Management (595)	Ac.	6,468	\$ -	\$ 64,680					X			X
Pipeline (516)	Ft.	13,073	\$ -	\$ 710					X			X
Pond (378)	No.	10	\$ -	\$ 600					X	X		X
Prescribed Grazing (528)	Ac.	2,612	\$ -	\$ 13,060					X			X
Pumping Plant (533)	No.	3	\$ -	\$ 210					X			X
Spring Development (574)	No.	6	\$ -	\$ 710					X	X		X
Subsurface Drain (606)	Ft.	1,992	\$ -	\$ 150					X			X
Upland Wildlife Habitat Mgmt (645)	Ac.	6,303	\$ -	\$ 31,520					X	X		X



Idaho

**Clearwater - 17060306**  
8 Digit Hydrologic Unit Profile

December 2006

**Conservation Activities for Grass/Pasture/Hayland\*-continued**

Current Level of Treatment for Grass/Pasture/Hay Lands												
Grass/Pasture/Hay Lands	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Additional Investment Cost	Annual O&M and Mngt.Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Use Exclusion (472)	Ac.	7,603	\$ -	\$ 7,980					X			X
Waste Storage Facility (313)	No.	7	\$ -	\$ 8,400					X			X
Watering Facility (614)	No.	30	\$ -	\$ 450					X			X
Water Well (642)	No.	5	\$ -	\$ 400					X			X
<b>Total RMS Costs</b>			<b>\$ -</b>	<b>\$157,690</b>								



Idaho

## Clearwater - 17060306 8 Digit Hydrologic Unit Profile

December 2006

### Conservation Activities for Grass/Pasture/Hayland\*-continued

<b>Future Conditions</b>	Total Acres	Riparian Acres
Total Grass/Pasture/Hay Lands	136,940	
Conversion to Riparian RMS		7,005
<b>Total Acres</b>	<b>143,945</b>	

Project Future Level of Treatment for Grass/Pasture/Hay Lands												
Grass/Pasture/Hay Land	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
<b>Grass/Pasture/Hay Land</b>	<b>Ac.</b>	<b>143,945</b>			<b>+3</b>	<b>+2</b>	<b>+3</b>	<b>+3</b>				
Access Road (560)	Ft.	44,982	\$ 626,900	\$ 94,040					X			X
Diversion (362)	Ft.	74,222	\$ 203,300	\$ 4,070					X			X
Fence (382)	Ft.	2,375,092	\$ 4,687,900	\$ 93,760					X	X		X
Fire Break (394)	Ft.	593,773	\$ 1,101,600	\$ 220,320					X			X
Forage Harvest Management (511)	Ac.	57,578	\$ -	\$ -					X			X
Heavy Use Area Protection (561)	Ac.	80	\$ 1,200,000	\$ 60,000					X			X
Nutrient Management (590)	Ac.	107,959	\$ 1,587,000	\$ 539,800					X			X
Pasture/Hayland Planting (512)	Ac.	57,578	\$ 5,693,800	\$ 56,940					X			X
Pest Management (595)	Ac.	129,550	\$ 3,692,500	\$ 1,230,820					X			X
Pipeline (516)	Ft.	296,887	\$ 766,300	\$ 15,330					X			X
Pond (378)	No.	58	\$ 288,000	\$ 2,880					X	X		X
Prescribed Burning (338)	Ac.	7,197	\$ 359,900	\$ 3,600					X			X
Prescribed Grazing (528)	Ac.	129,550	\$ 1,904,100	\$ 634,690					X			X
Pumping Plant (533)	No.	90	\$ 300,200	\$ 6,000					X			X
Riparian Forest Buffer (391)	Ac.	2,879	\$ 8,637,000	\$ 86,370					X			X
Riparian Herbaceous Cover (390)	Ac.	2,879	\$ 863,700	\$ 8,640					X			X
Spring Development (574)	No.	225	\$ 514,700	\$ 25,730					X			X



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**Clearwater - 17060306**  
 8 Digit Hydrologic Unit Profile

December 2006

**Conservation Activities for Grass/Pasture/Hayland\*-continued**

Project Future Level of Treatment for Grass/Pasture/Hay Lands												
Grass/Pasture/Hay Land	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Investment Cost	Annual O&M and Mngt.Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Subsurface Drain (606)	Ft.	8,918	\$ 17,300	\$ 520					X			X
Upland Wildlife Habitat Mgmt (645)	Ac.	21,592	\$ 229,300	\$ 76,450					X	X		X
Watering Facility (614)	No.	180	\$ 225,000	\$ 2,250					X			X
Well (642)	No.	112	\$ 856,000	\$ 8,560					X			X
<b>Total RMS Costs</b>			<b>\$ 33,754,500</b>	<b>\$ 3,170,770</b>								





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## Clearwater - 17060306 8 Digit Hydrologic Unit Profile

December 2006

### Conservation Activities for Grass/Pasture/Hayland\*-continued

Current Level of Treatment for Grass/Pasture/Hay Lands Riparian												
Grass/Pasture/Hay Lands Riparian	Quantity		Costs		Effects				Implementation			
Practices	Unit	Quantity	Additional Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Grass/Pasture/Hay Lands Riparian	Ac.	7,005			-1	±	-2	-2				
Animal Trails/Walkways (575)	Ft.	66	\$ -	\$ 30					X			X
Fence (382)	Ft.	12,456	\$ -	\$ 500					X	X		X
Heavy Use Area Protection (561)	Ac.	2	\$ -	\$ 1,500					X			X
Riparian Forest Buffer (391)	Ac.	40	\$ -	\$ 600					X			X
Riparian Herbaceous Cover (390)	Ac.	30	\$ -	\$ 90					X	X		X
Streambank/Shoreline Prot. (580)	Ft.	37	\$ -	\$ 30					X			X
Use Exclusion (472)	Ac.	3,041	\$ -	\$ 3,190					X			X
Wetland Creation (658)	Ac.	12	\$ -	\$ 600					X			X
Wetland Enhancement (659)	Ac.	2	\$ -	\$ 40					X			X
Wetland Wildlife Hab. Mgmt (644)	Ac.	269	\$ -	\$ 1,350					X	X		X
Wildlife Watering Facility (648)	No.	9	\$ -	\$ 70					X	X		X
<b>Total RMS Costs</b>			\$ -	\$ 8,000								



Idaho

## Clearwater - 17060306 8 Digit Hydrologic Unit Profile

December 2006

### Conservation Activities for Grass/Pasture/Hayland\*-continued

Future Level of Treatment for Grass/Pasture/Hay Lands Riparian												
Grass/Pasture/Hay Lands Riparian	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
<b>Grass/Pasture/Hay Lands Riparian</b>	<b>Ac.</b>	<b>7,005</b>			+3	+2	+3	+3				
Animal Trails/Walkways (575)	Ft.	9,590	\$ 47,600	\$ 4,760					X			X
Channel Bank Vegetation (322)	Ac.	75	\$ 225,000	\$ 4,500					X			X
Channel Stabilization (584)	Ft.	104,435	\$ 2,088,700	\$ 10,440					X			X
Fence (382)	Ft.	123,437	\$ 222,000	\$ 4,440					X	X		X
Heavy Use Area Protection (561)	Ac.	20	\$ 270,000	\$ 13,500					X			X
Riparian Forest Buffer (391)	Ac.	150	\$ 165,000	\$ 1,650					X			X
Riparian Herbaceous Cover (390)	Ac.	150	\$ 36,000	\$ 360					X	X		X
Stream Crossing (578)	No.	40	\$ 140,000	\$ 21,000					X	X		X
Stream Hab/Improve Mgmt (395)	Ac.	38	\$ 680,200	\$ 13,600					X			X
Streambank/Shoreline Prot. (580)	Ft.	208,961	\$ 9,401,600	\$ 940,160					X			X
Structure for Water Control (587)	No.	20	\$ 24,000	\$ 240					X			X
Tree/Shrub Establishment (612)	Ac.	150	\$ 67,500	\$ 680					X	X		X
Upland Wildlife Hab. Mgmt. (645)	Ac.	1,122	\$ 16,800	\$ 5,610					X	X		X
Use Exclusion (472)	Ac.	374	\$ -	\$ 390					X			X
Wetland Creation (658)	Ac.	75	\$ 315,000	\$ 3,150					X			X
Wetland Enhancement (659)	Ac.	75	\$ 146,000	\$ 1,460					X			X
Wetland Wildlife Hab. Mgmt (644)	Ac.	748	\$ 7,200	\$ 2,400					X	X		X
Wildlife Watering Facility (648)	No.	80	\$ 55,400	\$ 550					X	X		X
<b>Total RMS Costs</b>			<b>\$ 13,908,000</b>	<b>\$ 1,028,890</b>								



Idaho

**Clearwater - 17060306**  
8 Digit Hydrologic Unit Profile

December 2006

**Conservation Activities for Grass/Pasture/Hayland\*-continued**

<b>Potential RMS Effects for Grass/Pasture/Hayland</b>			
<b>Cost Items and Programs</b>		<b>Costs</b>	<b>O&amp;M Costs</b>
Non Farm Bill Programs		\$11,915,600	\$1,049,900
Potential Farm Bill Programs		\$35,746,900	\$3,149,800
Operator O&M and Management Cost			\$4,199,700
Annual Management Incentives ( 3yrs - Incentive Payments)		\$7,796,800	
Operator Investment		\$18,903,100	
Federal Costshare		\$20,962,600	
<b>Total RMS Costs</b>		<b>\$47,662,500</b>	<b>\$4,199,700</b>
Estimated Level of Participation			75%
Total Acres in RMS System			108,000
Anticipated Cost at Estimated Level of Participation			\$35,746,900
Total Annual Forage Production Benefits (animal unit months)			14,275
Participating landowners will be in compliance with TMDLs			
Improves habitat for ESA endangered and threatened species			



Idaho

## Clearwater - 17060306 8 Digit Hydrologic Unit Profile

December 2006

### Conservation Activities for Shrub/Rangeland

<b>Current Conditions</b>	Total Acres	Riparian Acres
Total Shrub/Range Land	139,504	11,391
Typical Management Unit/Ownership	720	
Current Farm Bill Participation	20%	

Current Level of Treatment for Shrub/Range Land												
Shrub/Range Land	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Additional Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
<b>Shrub/Range Land</b>	<b>Ac.</b>	<b>139,504</b>			-2	-2	-1	-1				
Fence (382)	Ft.	6,228	\$ -	\$ 250					X	X		X
Fire Break (394)	Ft.	9,203	\$ -	\$ 3,550					X			X
Pipeline (516)	Ft.	3,735	\$ -	\$ 200					X			X
Pond (378)	No.	4	\$ -	\$ 240					X	X		X
Prescribed Grazing (528)	Ac.	1,120	\$ -	\$ 5,600					X			X
Range Planting (550)	Ac.	424	\$ -	\$ 380					X			X
Spring Development (574)	No.	2	\$ -	\$ 240					X			X
Upland Wildlife Habitat Mgmt (645)	Ac.	1,576	\$ -	\$ 7,880					X	X		X
Watering Facility (614)	No.	10	\$ -	\$ 150					X			X
<b>Total RMS Costs</b>			<b>\$ -</b>	<b>\$18,490</b>								



Idaho

## Clearwater - 17060306 8 Digit Hydrologic Unit Profile

December 2006

### Conservation Activities for Shrub/Rangeland\*-continued

Future Conditions	Total Acres	Riparian Acres
Grazed Shrub/Range Land	128,113	
Conversion to Riparian RMS		11,391
<b>Total Acres</b>	<b>139,504</b>	

Future Level of Treatment for Shrub/Range Land												
Shrub/Range Land	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
<b>Shrub/Range Land</b>	<b>Ac.</b>	<b>139,504</b>			+3	+2	+3	+3				
Brush Management (314)	Ac.	698	\$ 17,500	\$ 170					X			X
Fence (382)	Ft.	575,454	\$ 1,138,500	\$ 22,770					X	X		X
Fire Break (394)	Ft.	66,000	\$ 109,600	\$ 21,920					X			X
Pest Management (595)	Ac.	69,752	\$ 2,092,600	\$ 697,520					X			X
Pipeline (516)	Ft.	287,727	\$ 766,800	\$ 15,340					X			X
Pond (378)	No.	56	\$ 312,000	\$ 3,120					X	X		X
Prescribed Grazing (528)	Ac.	125,554	\$ 1,866,500	\$ 622,170					X			X
Spring Development (574)	No.	218	\$ 507,600	\$ 25,380					X			X
Upland Wildlife Habitat Mgmt (645)	Ac.	20,926	\$ 290,300	\$ 96,750					X	X		X
Watering Facility (614)	No.	218	\$ 312,000	\$ 6,240					X			X
Well (642)	No.	14	\$ 112,000	\$ 1,120					X			X
<b>Total RMS Costs</b>			<b>\$7,525,400</b>	<b>\$1,512,500</b>								



Idaho

**Clearwater - 17060306**  
 8 Digit Hydrologic Unit Profile

December 2006

**Conservation Activities for Shrub/Rangeland\*-continued**

Current Level of Treatment for Shrub/Range Land Riparian												
Shrub/Range Land Riparian	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Additional Investment Cost	Annual O&M and Mngt.Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Practices												
Shrub/Range Land Riparian	Ac.	11,391			-2	-2	-1	-1				
<b>Total RMS Costs</b>												



Idaho

**Clearwater - 17060306**  
8 Digit Hydrologic Unit Profile

December 2006

**Conservation Activities for Shrub/Rangeland\*-continued**

Future Level of Treatment for Shrub/Range Land Riparian												
Shrub/Range Land Riparian	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Investment Cost	Annual O&M and Mngt.Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Shrub/Range Land Riparian	Ac.	11,391			+3	+2	+3	+3				
Channel Bank Vegetation (322)	Ac.	62	\$186,000	\$3,720					X			X
Fence (382)	Ft.	13,200	\$26,400	\$530					X	X		X
Pest Management (595)	Ac.	6,191	\$185,700	\$61,910					X			X
Pipeline (516)	Ft.	13,200	\$35,600	\$710					X			X
Spring Development (574)	No.	19	\$44,700	\$2,230					X			X
Tree/Shrub Establishment (612)	Ac.	124	\$55,800	\$560					X	X		X
Watering Facility (614)	No.	19	\$28,500	\$290					X			X
<b>Total RMS Costs</b>			<b>\$562,700</b>	<b>\$69,950</b>								



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**Clearwater - 17060306**  
8 Digit Hydrologic Unit Profile

December 2006

**Conservation Activities for Shrub/Rangeland\*-continued**

<b>Potential RMS Effects for Shrub/Rangeland</b>			
Cost Items and Programs		Costs	O&M Costs
Non Farm Bill Programs		\$2,444,100	\$448,100
Potential Farm Bill Programs		\$5,644,000	\$1,134,400
Operator O&M and Management Cost			\$1,582,500
Annual Management Incentives ( 3yrs - Incentive Payments)		\$4,435,100	
Operator Investment		\$2,746,300	
Federal Costshare		\$906,700	
<b>Total RMS Costs</b>		<b>\$8,088,100</b>	<b>\$1,582,500</b>
Estimated Level of Participation			75%
Total Acres in RMS System			104,600
Anticipated Cost at Estimated Level of Participation			\$6,066,100
Total Annual Forage Production Benefits (animal unit months)			14,000
Participating landowners will be in compliance with TMDLs			
Improves habitat for ESA endangered and threatened species			





Idaho

## Clearwater - 17060306

### 8 Digit Hydrologic Unit Profile

December 2006

### Conservation Activities for Forestland

<b>Current Conditions</b>	Total Acres	Riparian Acres
Total Grazed Forest Lands / Private	360,877	19,984
Typical Management Unit/Ownership	720	
Current Farm Bill Participation	20%	

Current Level of Treatment for Grazed Forest Lands / Private												
Grazed Forest Lands / Private	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Additional Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
<b>Grazed Forest Lands / Private</b>	Ac.	360,877			-1	±	-2	-2				
Critical Area Planting (342)	Ac.	405	\$ -	\$ 5,770					X			X
Fence (382)	Ft.	1,868	\$	\$ 70					X	X		X
Fire Break (394)	Ft.	13,804	\$	\$ 5,330					X			X
Forest Site Prep (490)	Ac.	40	\$	\$ 10,000					X			X
Forest Stand Improvement (666)	Ac.	185	\$	\$ 1,940					X			X
Tree/Shrub Establishment (612)	Ac.	894	\$	\$ 4,020					X	X		X
Upland Wildlife Habitat Mgmt (645)	Ac.	1,576	\$	\$ 7,880					X	X		X
Use Exclusion (472)	Ac.	1,323	\$	\$ 1,390					X			X
Watering Facility (614)	No.	10	\$	\$ 150					X			X
<b>Total RMS Costs</b>			\$ -	<b>\$36,550</b>								



Idaho

## Clearwater - 17060306 8 Digit Hydrologic Unit Profile

December 2006

### Conservation Activities for Forestland\*-continued

Future Conditions	Total Acres	Riparian Acres
Total Grazed Forest Lands / Private	360,877	19,984
Typical Management Unit/Ownership	720	
Current Farm Bill Participation	20%	

Future Level of Treatment for Grazed Forest Lands / Private												
Grazed Forest Lands / Private	Quantity		Costs		Effects				Implementation			
Practices	Unit	Quantity	Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
<b>Grazed Forest Lands / Private</b>	<b>Ac.</b>	<b>360,877</b>			+2	+2	+3	+3				
Access Road (560)	Ft.	281,935	\$ 4,229,000	\$ 634,350					X			X
Animal Trails/Walkways (575)	Ft.	140,968	\$ 704,800	\$ 70,480					X			X
Critical Area Planting (342)	Ac.	3,609	\$ 1,521,900	\$ 45,660					X			X
Fence (382)	Ft.	1,488,618	\$ 2,973,500	\$ 59,470					X	X		X
Fire Break (394)	Ft.	563,870	\$ 1,061,600	\$ 212,330					X			X
Forest Site Prep (490)	Ac.	36,088	\$ 9,012,000	\$ -					X			X
Forest Slash Treatment (384)	Ac.	10,826	\$ 2,706,500	\$ -					X			X
Forest Stand Improvement (666)	Ac.	36,088	\$12,566,100	\$ 376,980					X			X
Forest Trail/Landings (655)	Ac.	3,608	\$ 1,587,500	\$ 238,130					X			X
Nutrient Management (590)	Ac.	324,789	\$ 4,871,800	\$1,623,950					X			X
Pest Management (595)	Ac.	324,789	\$ 9,743,700	\$3,247,890					X			X
Pond (378)	No.	144	\$ 864,000	\$ 8,640					X	X		X
Prescribed Forestry (409)	Ac.	10,826	\$ 162,400	\$ 54,130					X			X
Prescribed Grazing (528)	Ac.	144,351	\$ 2,165,300	\$ 721,760					X			X
Silvo-Pasture Establishment (381)	Ac.	36,088	\$ 3,608,800	\$ 36,090					X			X
Spring Development (574)	No.	282	\$ 662,700	\$ 33,140					X	X		X



Idaho

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**Conservation Activities for Forestland\*-continued**

Future Level of Treatment for Grazed Forest Lands / Private												
Grazed Forest Lands / Private	Quantity		Costs		Effects				Implementation			
Practices	Unit	Quantity	Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Tree/Shrub Establishment (612)	Ac.	7,218	\$ 2,845,800	\$ 28,460					X			X
Upland Wildlife Habitat Mgmt (645)	Ac.	72,175	\$ 1,059,000	\$ 353,000					X	X		X
Use Exclusion (472)	Ac.	18,044	\$ 585,200	\$ 17,560					X			X
Watering Facility (614)	No.	289	\$ 418,500	\$ 4,190					X			X
<b>Total RMS Costs</b>			<b>\$63,350,100</b>	<b>\$7,766,210</b>								



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**Conservation Activities for Forestland\*-continued**

Current Level of Treatment for Riparian Forest / Private												
Riparian Forest / Private	Quantity		Costs		Effects				Implementation			
Practices	Unit	Quantity	Additional Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Riparian Forest / Private	Ac.	19,984			-1	+	-2	-2				
Critical Area Planting (342)	Ac.	51	\$ -	\$ 730					X			X
Fence (382)	Ft.	4,360	\$ -	\$ 170					X	X		X
Use Exclusion (472)	Ac.	3,087	\$ -	\$ 3,240					X			X
<b>Total RMS Costs</b>			\$ -	<b>\$4,140</b>								



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## Clearwater - 17060306 8 Digit Hydrologic Unit Profile

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### Conservation Activities for Forestland\*-continued

Future Level of Treatment for Riparian Forest / Private												
Riparian Forest / Private	Quantity		Costs		Effects				Implementation			
Practices	Unit	Quantity	Investment Cost	Annual O&M and Mngt.Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Riparian Forest / Private	Ac.	19,984			+1	+1	+3	+3				
Critical Area Planting (342)	Ac.	333	\$134,000	\$4,020					X	X		X
Fence (382)	Ft.	137,391	\$266,100	\$5,320					X	X		X
Streambank/Shoreline Prot. (580)	Ft.	174,134	\$7,836,000	\$156,720					X			X
Stream Habitat Improvement (395)	Ac.	166	\$2,905,000	\$58,100					X			X
Tree/Shrub Establishment (612)	Ac.	665	\$299,300	\$2,990					X	X		X
Use Exclusion (472)	Ac.	1,665	\$ -	\$1,750					X			X
<b>Total RMS Costs</b>			<b>\$11,440,400</b>	<b>\$228,900</b>								



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**Clearwater - 17060306**  
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**Conservation Activities for Forestland\*-continued**

<b>Potential RMS Effects for Forestland</b>			
Cost Items and Programs		Costs	O&M Costs
Non Farm Bill Programs		\$18,697,600	\$1,998,800
Potential Farm Bill Programs		\$56,092,900	\$5,996,300
Operator O&M and Management Cost			\$7,995,100
Annual Management Incentives ( 3yrs - Incentive Payments)		\$18,002,200	
Operator Investment		\$28,220,300	
Federal Costshare		\$28,568,000	
<b>Total RMS Costs</b>		<b>\$74,790,500</b>	<b>\$7,995,100</b>
Estimated Level of Participation			75%
Total Acres in RMS System			270,700
Anticipated Cost at Estimated Level of Participation			\$56,092,900
Total Annual Forage Production Benefits (animal unit month)			16,200
Participating landowners will be in compliance with TMDLs			
Improves habitat for ESA endangered and threatened species			