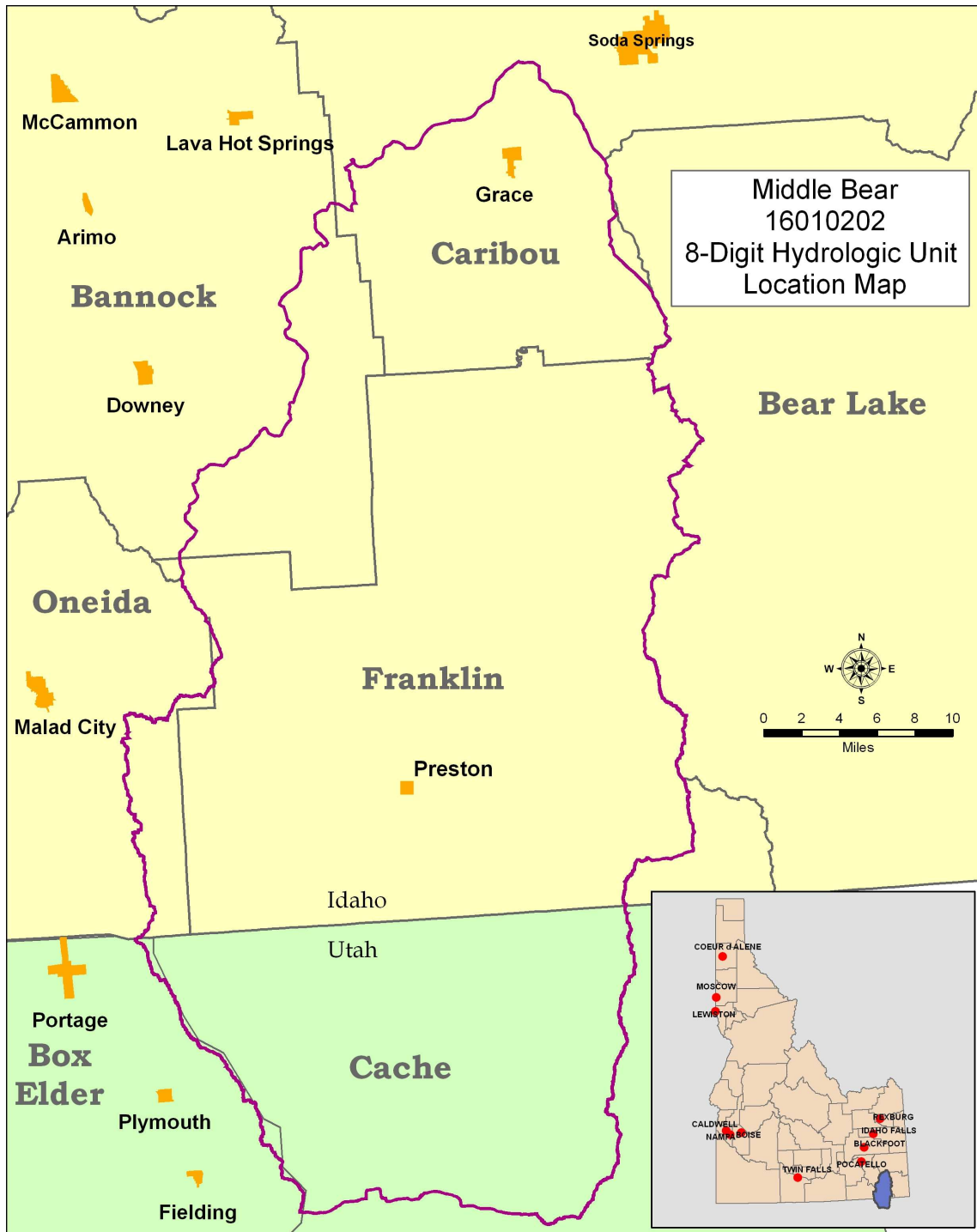


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### Introduction

The Middle Bear 8-Digit Hydrologic Unit Code (HUC) subbasin is 819,105 acres. The Idaho portion of the subbasin is 615,458 acres in size. ***Only the Idaho portion of the subbasin will be described in this document.*** Approximately sixty six percent of the subbasin is located in Franklin County. Caribou County comprises 19 percent of the Middle Bear subbasin. Bannock County accounts for approximately 11 percent of the subbasin. Three percent of the subbasin is in Oneida County; a few hundred acres are located in Bear Lake County. Sixty six percent of the basin is privately owned and 34 percent is public land.

Seventeen percent of the basin is in forest, 19 percent is cropland, 32 percent is shrubland or rangeland, and 23 percent is grass, pasture or hayland. Approximately 7 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 4400 feet in the southern portion to over 9000 feet along the south eastern edge of the Idaho side of the subbasin.

Conservation assistance is provided by four Soil and Water Conservation Districts, and two Resource Conservation and Development offices.

### Profile Contents

[Introduction](#)

[Physical Description](#)

[Landuse Map & Precipitation Map](#)

[Common Resource Area](#)

[Resource Settings](#)

[Resource Concerns](#)

[Census and Social Data](#)

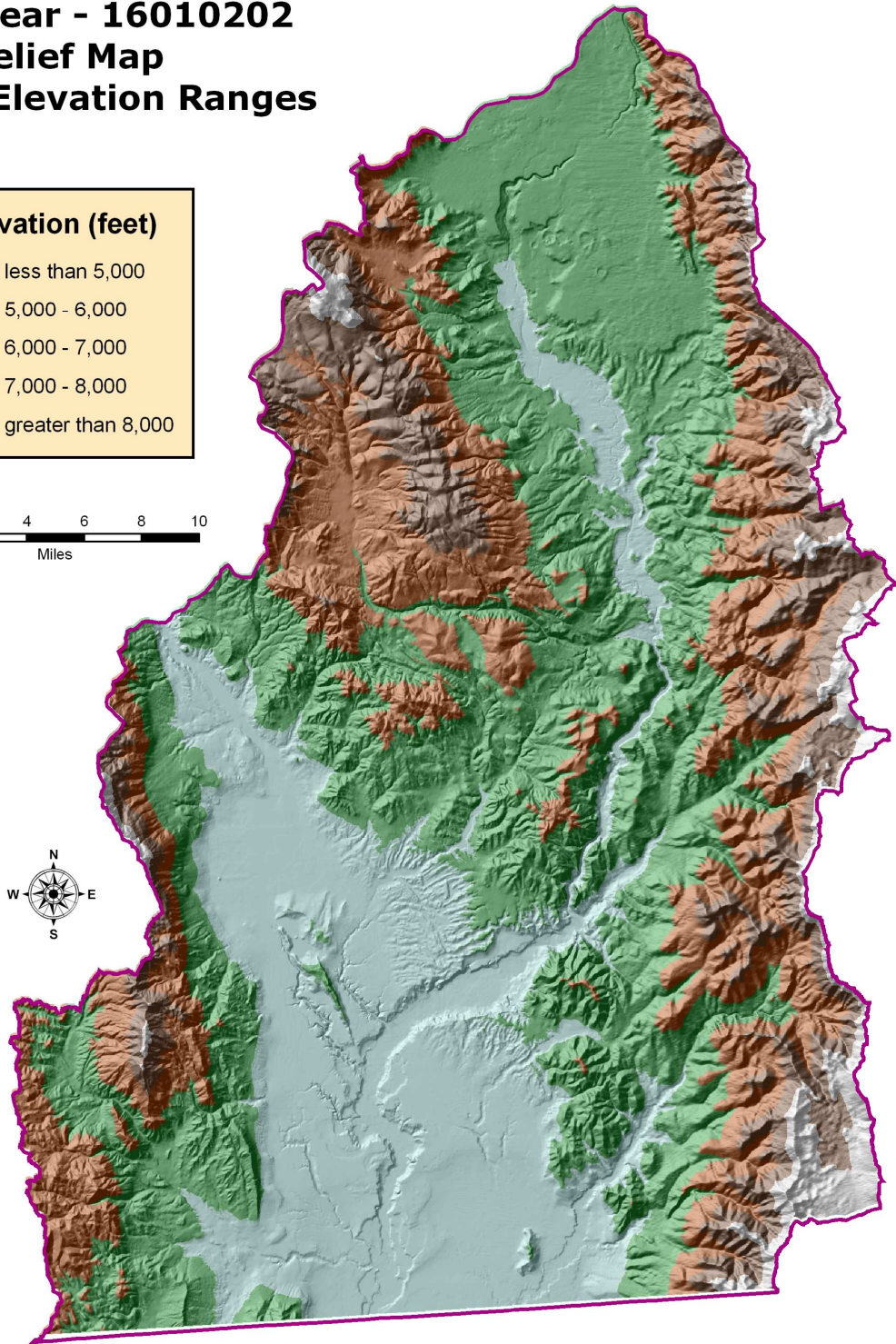
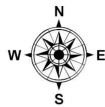
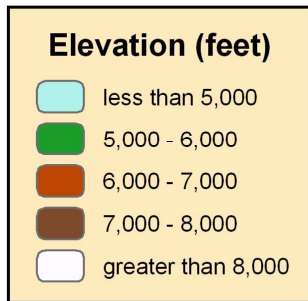
[Progress/Status](#)

[Footnotes/Bibliography](#)

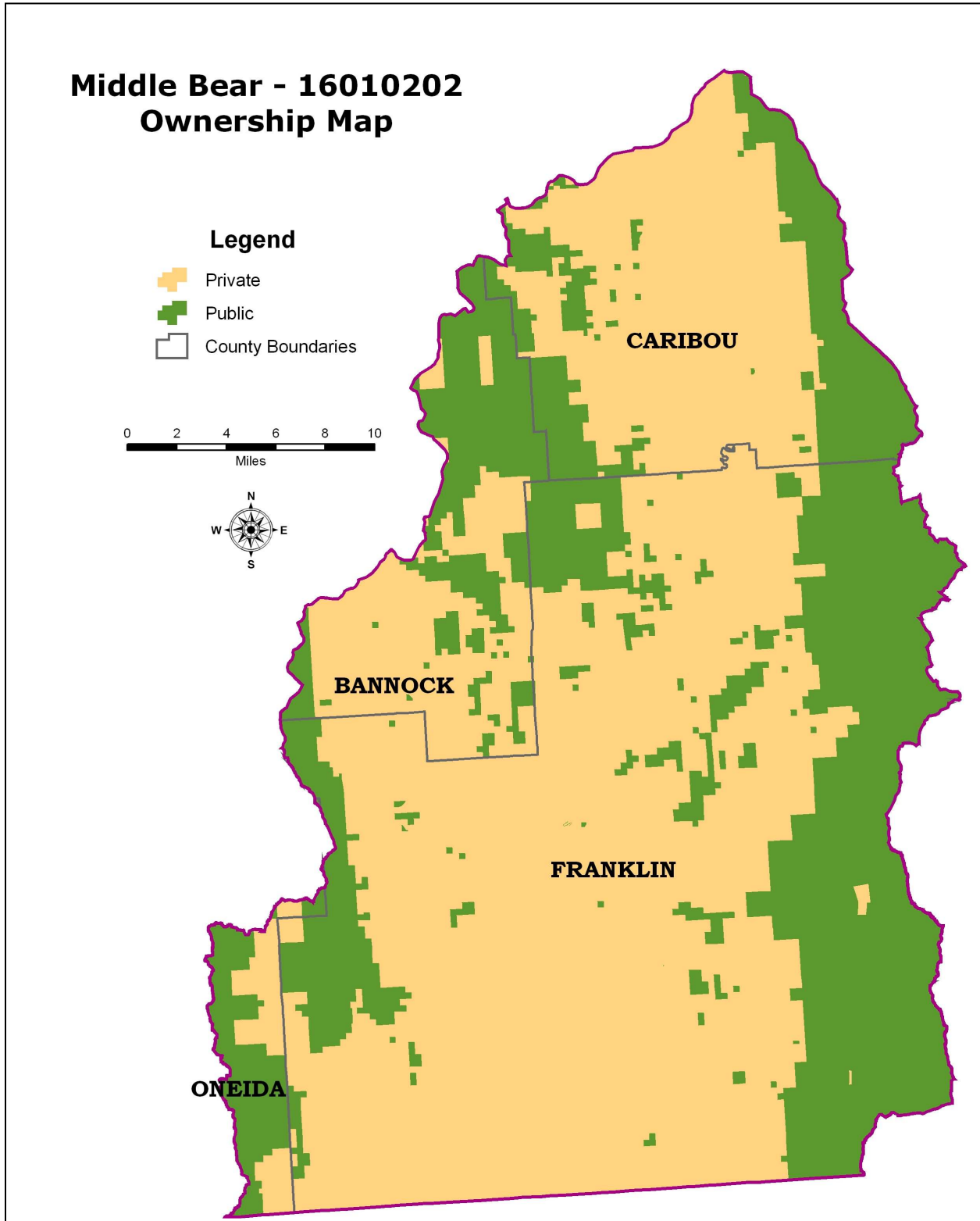
[Future Conservation Needs](#)

## Relief Map

### Middle Bear - 16010202 Relief Map Showing Elevation Ranges



**General Ownership**





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## Physical Description

**ALL NUMBERS WITHIN THIS PROFILE ARE FOR IDAHO ONLY**

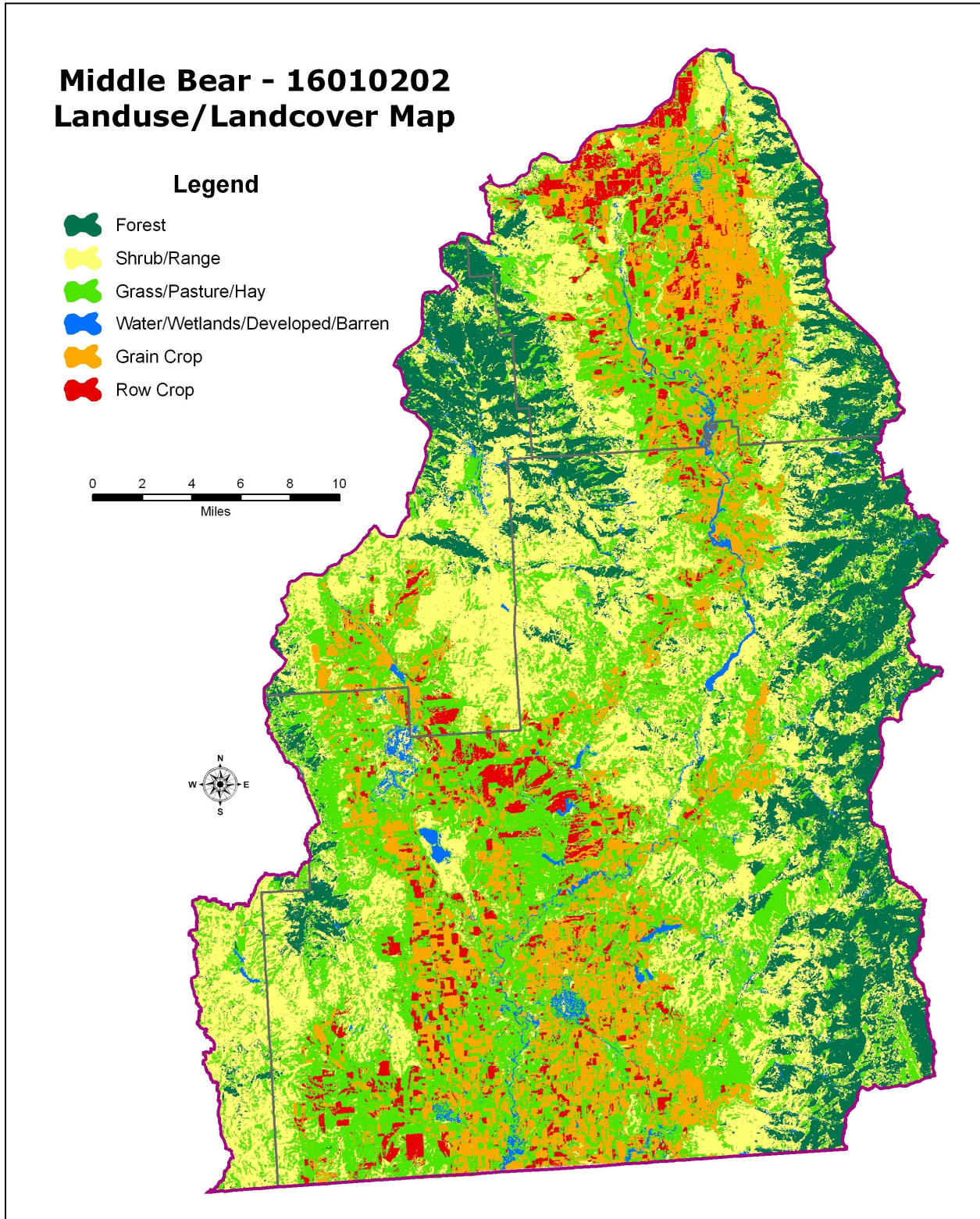
Land Cover / Land Use (NLCD <sup>/2</sup> )	Ownership - (2003 Draft BLM Surface Map Set <sup>/1</sup> )						Totals	% of HUC
	Public		Private		Tribal			
	Acres	%	Acres	%	Acres	%		
Forest	90,598	15%	12,019	2%	--	--	102,617	17%
Grain Crops	217	<1%	85,403	14%	--	--	85,620	14%
Conservation Reserve <sup>/3</sup> Program (CRP) Land	--	--	43,651	7%	--	--	43,651	7%
Grass/Pasture/Hay Lands	31,375	5%	114,008	18%	--	--	145,383	23%
Orchards/Vineyards/Berries	--	--	--	--	--	--	--	--
Row Crops	70	<1%	29,123	5%	--	--	29,193	5%
Shrub/Rangelands	87,496	14%	111,672	18%	--	--	199,168	32%
Water/Wetlands/ Developed/Barren	1,728	<1%	8,098	1%	--	--	9,826	2%
<b>Idaho HUC Totals*</b>	<b>211,484</b>	<b>34%</b>	<b>403,974</b>	<b>66%</b>	<b>--</b>	<b>--</b>	<b>615,458</b>	<b>100%</b>

\*Totals are approximate due to calculation methods used

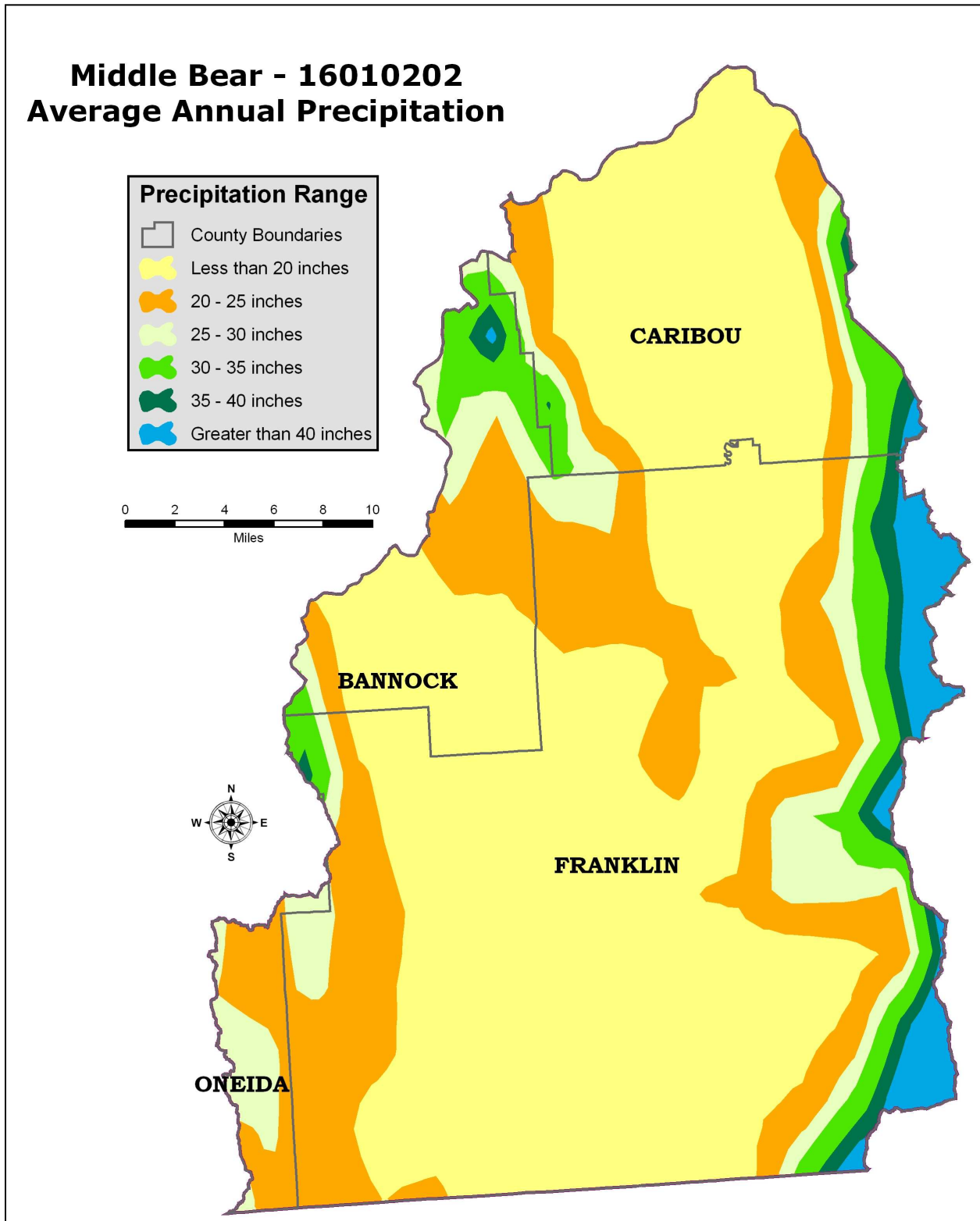
Irrigated Lands <sup>/4</sup>	Type of Land	ACRES	% of Irrigated Lands	% of HUC
	Cultivated Cropland	62,200	62%	10%
	Non-Cultivated Cropland**	27,400	27%	4%
	Pastureland	11,000	11%	2%
	<b>Total Irrigated Lands</b>	<b>100,600</b>	<b>100%</b>	<b>16%</b>

\*\*Includes permanent hayland and horticultural cropland.

**Land Use / Land Cover**



## Average Annual Precipitation

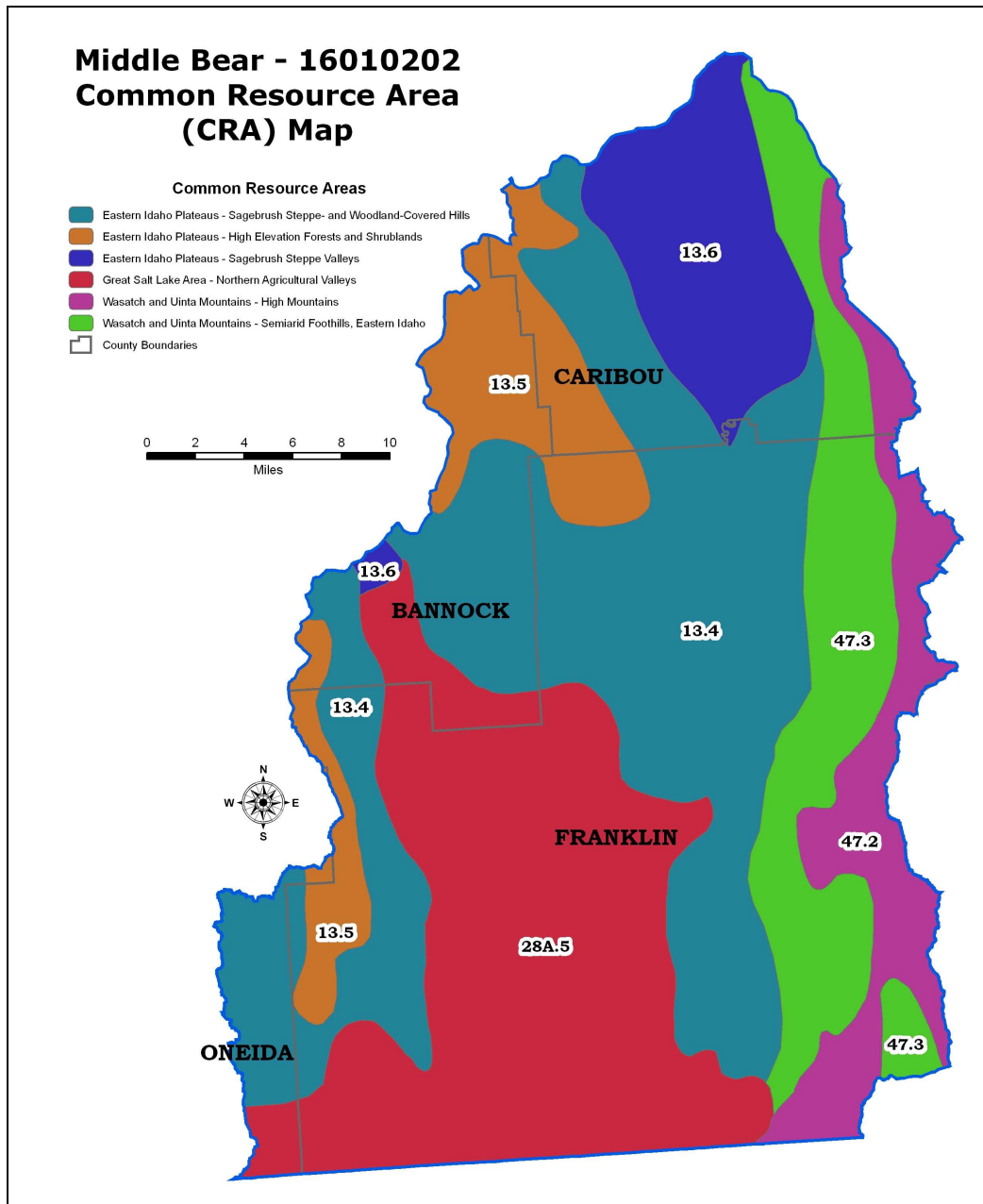


## Common Resource Area Map

**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

### **13.4 Eastern Idaho Plateaus - Sagebrush Steppe - and Woodland-Covered Hills and Low Mountains**

This unit occupies an elevational band between the higher mountains and the lower inter-montane valleys. Potential natural vegetation is mostly sagebrush steppe. Cool season grasses are more common than in the adjacent, drier units. Juniper woodland vegetative sites occur on shallow rocky soils. Land use is primarily livestock grazing.

### **13.5 Eastern Idaho Plateaus - High Elevation Forests and Shrublands**

This unit is mountainous and occupies the elevational band above Sagebrush Steppe Valleys and Woodland-Covered Hills and Low Mountains CRA units. It is characterized by a mix of conifers, mountain brush, and sagebrush grassland. North-facing slopes and many flatter areas support open stands of Douglas-fir, aspen and lodgepole pine. Winters are colder and the mean annual precipitation is higher than in lower elevation units.

### **13.6 Eastern Idaho Plateaus - Sagebrush Steppe Valleys**

This valley unit is flanked by hills and mountains. It is dominated by sagebrush grassland and lacks woodlands, open conifer forest, and the saltbush-greasewood vegetation. Perennial bunchgrasses are more abundant than in the Sagebrush Basins and Slopes in Utah. Valleys mostly drain to the Snake River and fish assemblages are unlike those of the internally-drained basins to the south (MLRA 28A). Grazing is the dominant land use but non-irrigated wheat and barley farming is much more common than in MLRA 28A. This unit is less suitable for cropland and has less available water than many parts of the Snake River Plain (MLRA 11).

### **28A.5 Great Salt Lake Area - Northern Agricultural Valleys**

This unit is on gently sloping hills and terraces and some valley basins. Mountain-fed perennial streams and canals supply water to pastureland, towns, and cropland growing hay and small grains. Soils are in a semiarid climate and are usually Xeralfs or Xerolls with a mesic temperature regime. Precipitation ranges from 9 to 16 inches.

### **47.2 Wasatch and Uinta Mountains - High Mountains**

This area is in the higher elevations of the Wasatch and Uinta Mountains. Precipitation ranges from 16 to about 30 inches. Elevations are usually more than 6,000 feet and range to more than 10,000 feet. The mountains are covered in a mixture of mountain big sagebrush, mountain brush, and coniferous forests; with alpine vegetation on the highest mountain summits.



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## Common Resource Area Descriptions - continued

### 47.3 Wasatch and Uinta Mountains - Semiarid Foothills, Eastern Idaho

The Semiarid Foothills ecoregion ranges in elevation from about 5,500 to 8,200 feet. Widely spaced junipers occur in a matrix dominated by mountain big sagebrush and bluebunch wheatgrass. Overall, the vegetation is distinct from that of the higher, wetter Wasatch Montane Zone. Livestock grazing is common. Some rangeland has been cleared of trees and reseeded to grasses.

## Streamflow Summary [/7, 27, 29](#)

The Idaho portion of the Middle Bear subbasin includes all land that drains to the Bear River from below Alexander Dam to the Utah state line. The Bear River flows from north to south within this stretch. A diversion at Grace Dam delivers water to the Grace Power Plant (USU, 2007). The river continues through the Gem and Gentile Valleys, through Oneida Narrows Reservoir, and crosses the state line into Utah just below Weston Creek. The hydrology of the Middle Bear subbasin is dominated by the Bear River mainstem as it flows through mostly semi-arid canyons, rangeland and irrigated agricultural ground. Major tributaries to the Bear River in the subbasin include Cottonwood Creek, which joins the river from the west above Oneida Narrows Reservoir, and Weston Creek that drains into the river near the Utah state line. The average annual (daily) flow of the Bear River at the Utah stateline is 1,009 cfs; this is based on 30 years of flow data (1976 to 2005).

Peak flows generally occur in April, May or June, but have been recorded during October or November as well. Highest peak flow for the discharge period examined was 4,870 cfs (6/14/84), with the lowest flow estimated at 24 cfs (5/16/04). Flows are highly variable due to irrigation diversions; during the last five years lowest flows at the stateline have occurred anytime from May to August. Summer flows, averaging 1000 cfs, are elevated relative to upstream gaging stations.

Stream Flow Data	USGS #10092700 Bear River At Idaho-Utah State Line, 1976-2005	Acre-Feet	
		Average Annual	730,493
		Mar-July Average	361,439
		Percent of Average Annual	49.5%

Principal uses of water in the subbasin are hydroelectric power generation and irrigation. Additional uses include domestic, livestock, and industrial purposes.



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		CFS	Number	
<b>Irrigated Adjudicated Water Rights</b> <sup>/6)</sup>	Surface Water	2,557	6,941	
	Groundwater	158	333	
	<b>Total Irrigated Adjudicated Water Rights</b>	<b>2,715</b>	<b>7,274</b>	
		MILES	PERCENT	
<b>Stream Data</b>	Total Miles <sup>/8</sup>	1,034	--	
	Water quality impaired streams <sup>/9</sup>	614	59%*	
	Anadromous Fish Presence (Streamnet) <sup>/11</sup>	None	--	
	Bull Trout Presence (Streamnet) <sup>/11</sup>	None	--	
		ACRES	PERCENT	
<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	4,412	12%	
	Grain Crops	4,122	11%	
	Grass/Pasture/Hay Lands - Includes CRP Lands	14,726	39%	
	Row Crops	1,417	4%	
	Shrub/Rangelands	12,235	32%	
	Water/Wetlands/Developed/Barren	848	2%	
	<b>Total Acres of 100 ft stream buffers</b>	<b>37,760</b>	<b>100%</b>	
<b>Land Capability Class</b> <sup>/4</sup>	<b>I</b> - slight limitations	--	--	
	<b>II</b> - moderate limitations	27,000	15%	
	<b>III</b> - severe limitations	79,800	45%	
	<b>IV</b> - very severe limitations	50,600	29%	
	<b>V</b> - no erosion hazard, but other limitations	10,500	6%	
	<b>VI</b> - severe limitations, unsuited for cultivation, limited to pasture, range, forest	7,400	4%	
	<b>VII</b> - very severe limitations, unsuited for cultivation, limited to grazing, forest, wildlife	900	1%	
	<b>VIII</b> - misc areas have limitations, limited to recreation, wildlife, and water supply	--	--	
	<b>Total Crop &amp; Pasture Lands</b>	<b>176,200</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>	111			
<b>Feedlots</b>	4	1		3

## Resource Settings

### **Pasture:**

Pasture ranges from low wet meadows to rolling hills along the valley margins. Livestock utilization is during early spring and late fall, with a rest period in the summer. Fencing of property boundaries is generally an existing practice. Soils are deep with variable textures and wetland inclusions with slopes from zero to ten percent. Annual precipitation is 12 inches or less with very hot dry summers. Vegetation ranges from native grass/sedge/rush complexes in the wet meadows to improved forage species such as timothy, bromegrass, orchard grass and clover in the uplands. Occasionally these may be cut once during the summer as wild hay.

### **Cropland:**

#### Dry Cropland

Dry cropland is located along the valley margins on slopes ranging from 3 to 12%. Elevations along the valley margins range from 4,000 to 5,500 feet which shortens the growing season to about 90 days. Precipitation ranges from 10 to 14 inches per year, making this very marginal for producing crops with out irrigation. To accommodate for this most landowners have a winter small grain / fallow rotation. Tillage practices are fall disk, spring chisel with sweeps, summer chisel with sweeps, drill in fall and harvest.

Some landowners are trying an annual small grain. This has had mixed results due to the lower yields and increase in weeds. Tillage practices with an annual grain rotation are fall disk, spring disk, drill and harvest.

Typical soils are silt loams with a T rating of 5 and a K factor of 0.43. Sheet and rill erosion are a problem due to the steep slopes. Steeper slopes have ephemeral and classic gully erosion. Some of the areas have installed terraces and water & sediment basins to control the runoff and erosion.

Dry cropland that has been converted to permanent vegetation (CRP) applies to all slopes, soil types and precipitation ranges. Wildlife habitat and gully erosion are still a concern in areas that had very sever erosion before the conversion to permanent cover.

#### Irrigated Cropland

Irrigated cropland is located along the lower valley margins and in the valley bottoms. Slopes range from 0 to 8% with steeper slopes sprinkler irrigated and some of the flatter slopes surface irrigated. Soils are loamy sand and finer with T values 3 to 5. Precipitation ranges from 8 to 12 inches with a growing season of 100 to 120 days. Crops grown are alfalfa, small grain, potato and silage and grain corn. Crop rotations have 5 years alfalfa and 1 to 3 years small grain, corn or potato.

**Resource Settings** - continued**Hayland:**Dry hayland

Dry hayland is located on 8 to 12 percent slopes. Growing season is 90 days. Soils are deep with variable textures. Annual precipitation is less than 12 inches with hot dry summer months. Fertilizers and/or pesticides are periodically applied. One cutting of introduced grass and alfalfa or clover are typical with rotations lasting up to 10 years. Big game species are present in winter and early spring. Forage harvest management is usually an existing practice.

Irrigated hayland

Irrigated hayland on zero to seven percent slopes. Precipitation is 12 inches or less per year and the growing season is approximately 100 to 120 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, pest, and/or irrigation water management may be less than desirable.

**Range:**

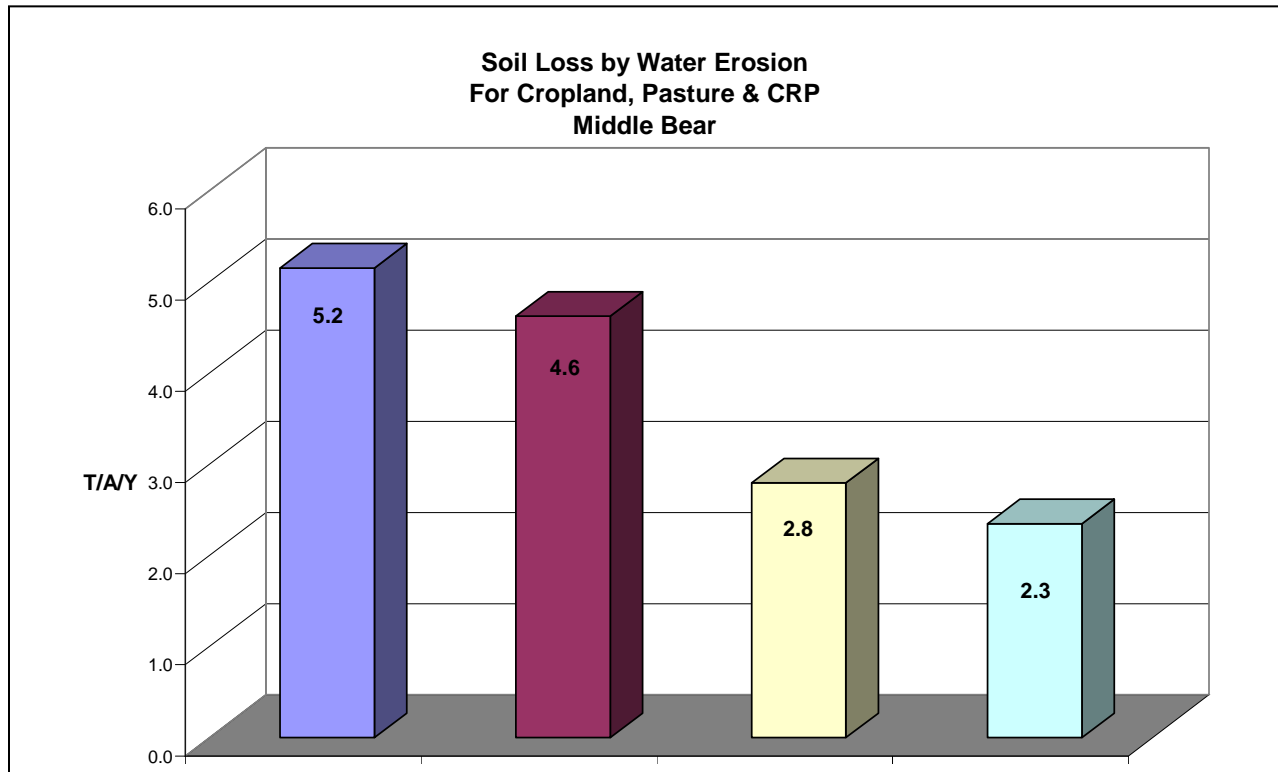
Rangeland is located along the valley margins above the cropland and adjacent to the public land. Some of the rangeland is managed in conjunction with the public land grazing allotments. Rangeland vegetation consists of native perennial grass and forbs. Some areas have problems with invasive species. Precipitation is 12 to 16 inches most of which falls in winter and early spring outside the growing season with periodic summer thunderstorms. Topography varies from steep slopes to rims and benches. Soils are loamy to gravelly with slopes from 0 to 20 percent. The average frost free period is 80 to 100 days. Elevations range from 4,500 feet to 6,000 feet. Temperatures are cold in the winter and very hot in the summer. Boundary fencing is generally an existing condition. The typical planning unit is 640 acres.

Riparian vegetation consists of grasses, sedges, rushes and a variety of woody species. Streams are primarily medium 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.

Upland Native species such as bluebunch wheatgrass, Idaho fescue, and native shrubs and trees may be found at higher elevations along mountainsides. The majority of grazing animals are cattle, sheep and horses. Big game includes elk, mule deer and moose that utilize rangeland and pasture for early spring and winter grazing.

## Resource Concerns

Water erosion on Cropland, Pasture & CRP in this watershed has decreased significantly since 1982. Rates have decreased from about 5.2 tons per acre per year in 1982 to approximately 2.3 tons per acre per year in 1997.



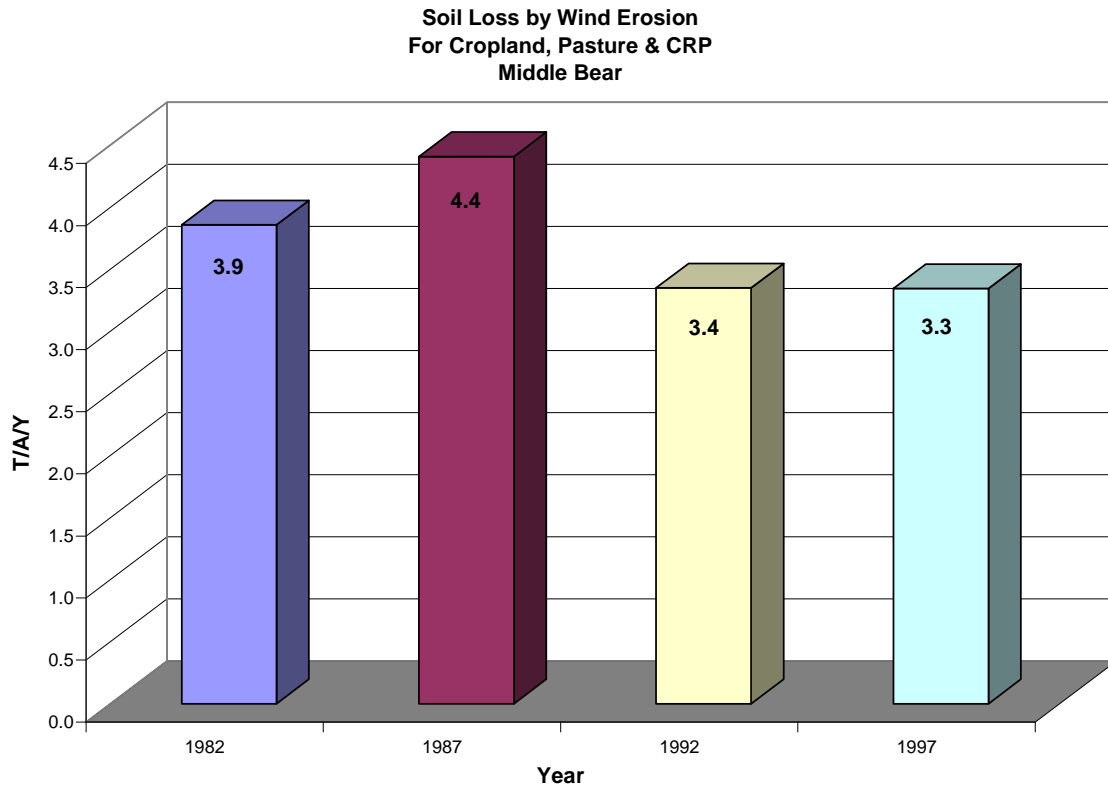
Controlling erosion not only sustains the long-term productivity of the land, but also affects the amount of soil, pesticides, fertilizer, and other substances that move into the nation's waters.

Many of the listed streams are impaired by multiple pollutants, primarily nutrients and sediment; bacteria is a pollutant of concern for the Cub River tributary. Agricultural land uses contribute to water quality impacts. Other pollutant sources include stormwater runoff and land development. Flow and habitat alteration problems exist within the watershed.

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

## Resource Concerns - continued

Wind erosion has decreased by slightly more than 0.5 tons per acre per year on cropland, pasture and CRP in this subbasin between 1982 and 1997. Following a spike in wind erosion to approximately 4.4 tons per acre per year in 1987, wind erosion has decreased to approximately 3.3 tons per acre per year in 1997.



Conservation practices that can be used to address wind erosion include: surface wetting, surface roughening, windbreaks, seedbed preparation (delayed seeding), mulching, and pasture and hayland planting.



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### Resource Concerns - continued

Impacted Water Bodies <sup>9.29</sup> (ID 16010202) Named Waterbodies	Stream Miles*	Bacteria	Nutrients	Sediment	Temperature	Dissolved Oxygen	Other or Unknown
Oneida Narrows Reservoir	420 ac.			X			
Battle Creek (BR015_04)	14.6		X	X			
Battle Creek (BR015_03)	3.0		X	X			
Battle Creek (BR015_02)	67.8		X	X			
Smith Creek (BR009_02a)	9.0						X
Alder Creek (BR009_02b)	17.7						X
Bear River (BR006_06)	36.1						X
Bear River (BR006_02)	60.2						X
Cottonwood Creek (BR014_04)	14.0			X			
Cub River (BR003_03)	9.1		X	X			
Cub River (BR003_02)	32.7	X					X
Cub River (BR002_04)	3.9		X	X			
Densmore Creek (BR013_02)	22.9		X	X			
Fivemile Creek(BR019_02)	9.5						X
Fivemile Creek(BR019_02a)	5.7			X			
Steel Canyon (BR021_02a)	0.9			X			
Jenkins Hollow (BR021_02)	12.6			X			
Mink Creek (BR007_02)	56.5						X
Swan Lake Creek(BR018_02b)	13.8			X			X
Stockton Creek (BR018_03a)	6.1						X
Upper Weston Creek(BR020_02c)	12.2			X			
Trail Hollow (BR020_02d)	10.7			X			
Weston Creek (BR020_03)	8.3		X	X			
Weston Creek (BR020_02)	35.2		X	X			
Weston Creek (BR020_04)	4.7		X	X			
Black Canyon (BR020_02a)	15.1			X			
Whiskey Creek (BR012_02)	4.7		X	X			
Williams Creek(BR010_02)	24.5		X	X			
Worm Creek(BR005_02)	46.9						X
<b>Total Stream Miles:</b>	<b>558.4</b>						

Shading indicates TMDL in place

Shading indicates TMDL in progress





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### Resource Concerns - continued

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

##### **NRCS Watershed Plans, Studies and Assessments** [/14,15,18](#)

USDA 1976 Irrigation Conveyance System Inventory Summary. Bear River Basin Type IV Study. United States Dept of Agriculture SCS. 135 pages

##### **USFWS** [/18](#)

Middle Bear Restoration Project

##### **IDEQ TMDLs** [/16](#)

Bear River/Malad River Subbasin Assessment and Total Maximum Daily Load Plan. Prepared by Ecosystems Research Institute, Inc. Submitted by IDEQ, 2006.

##### **SCC TMDL Agricultural Implementation Plans** [/19](#)

Cub River Watershed Implementation Plan. ISCC, 2006.

##### **IDEQ/SWCD 319 Projects** [/17](#)

Bear River Streambank Restoration Project, Thatcher, ID.  
Cub River Restoration Project  
Deep Creek Restoration Project

##### **IASCD Monitoring Projects** [/34](#)

Middle Bear Monitoring Project. IASCD, 2006.

##### **Other State Assessments** [/18, 27, 29](#)

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Ecosystem Research Institute. 1998. Water Quality Study for the Bear River in Idaho. Prepared for the Bureau of Reclamation.

##### **SWCD Plans** [/18,19,27](#)

Cub River Watershed Stream Assessment Report. Franklin SWCD, 2002.  
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##### **Utah State University** [/18, 27, 29](#)

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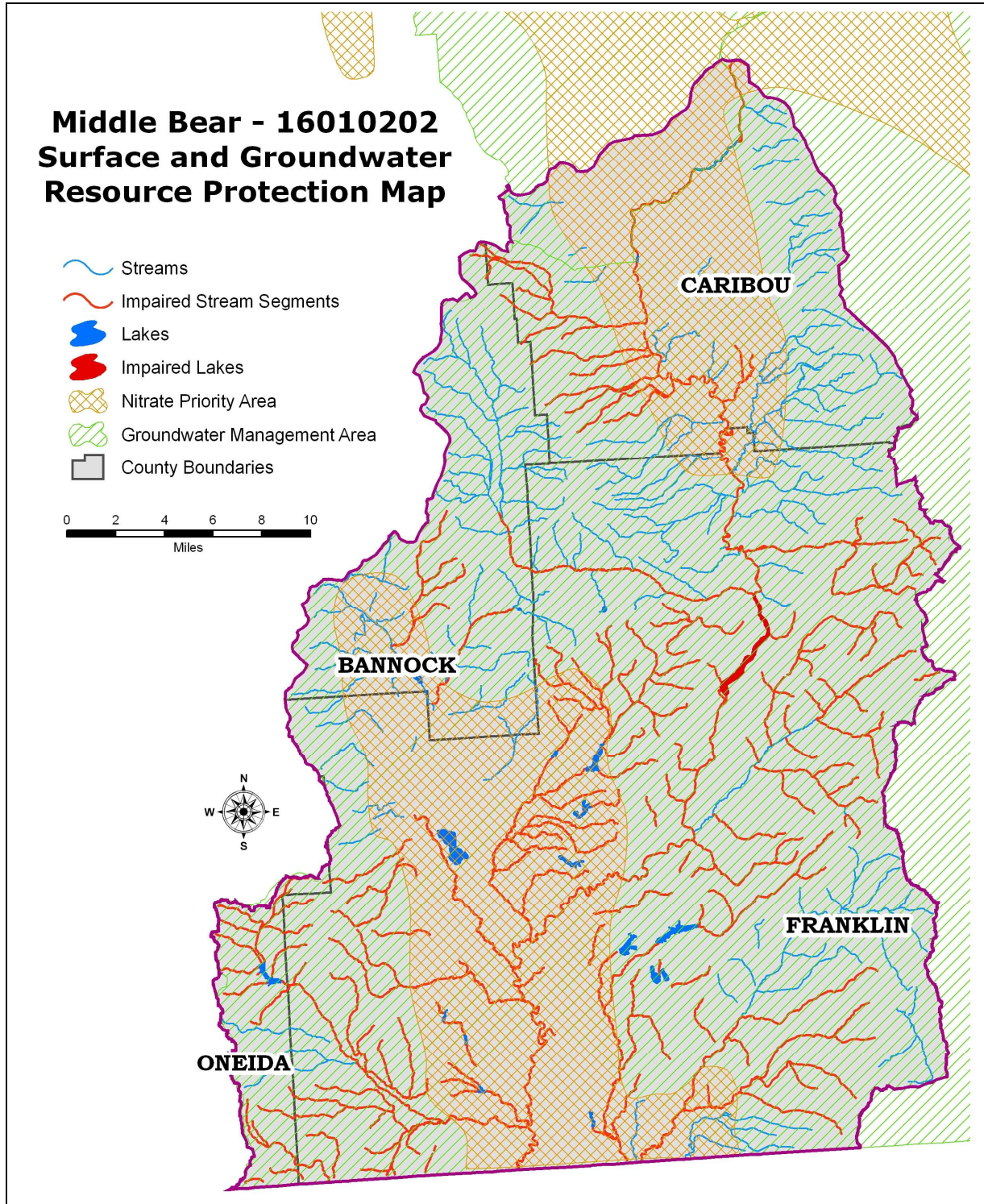
### ***Watershed Projects, Plans, Studies and Assessments - continued***

#### **US Geological Survey** [/23](#)

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## Resource Concerns – continued

### Surface and Groundwater Resource Protection





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## Resource Concerns – continued

Resource Concerns/ Issues by Land Use								
SWAPA Soil, Water, Air, Plants, Animals	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	X	X		
	Ephemeral or classic gully			X	X		X	
	Wind			X	X	X		
	Streambank	X		X			X	
Water Quantity	Inefficient use on irrigated lands	X	X		X	X		
Water Quality, Surface	Suspended sediment			X	X	X	X	
	Nutrients and organics	X	X	X	X	X	X	
Water Quality, Ground	Nutrients and organics		X		X	X		
	Pesticides		X					
Soil Condition	Organic matter depletion			X	X	X		
	Compaction	X		X	X	X		
Plant Condition	Productivity, health and vigor	X	X	X	X	X	X	
	Plants not adapted or suited							
	Noxious and invasive plants	X	X				X	
	Wildfire hazard						X	
Domestic Animals	Inadequate feed or water	X					X	
Fish and Wildlife	Inadequate water	X	X	X	X	X	X	
	Inadequate cover/shelter	X	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.

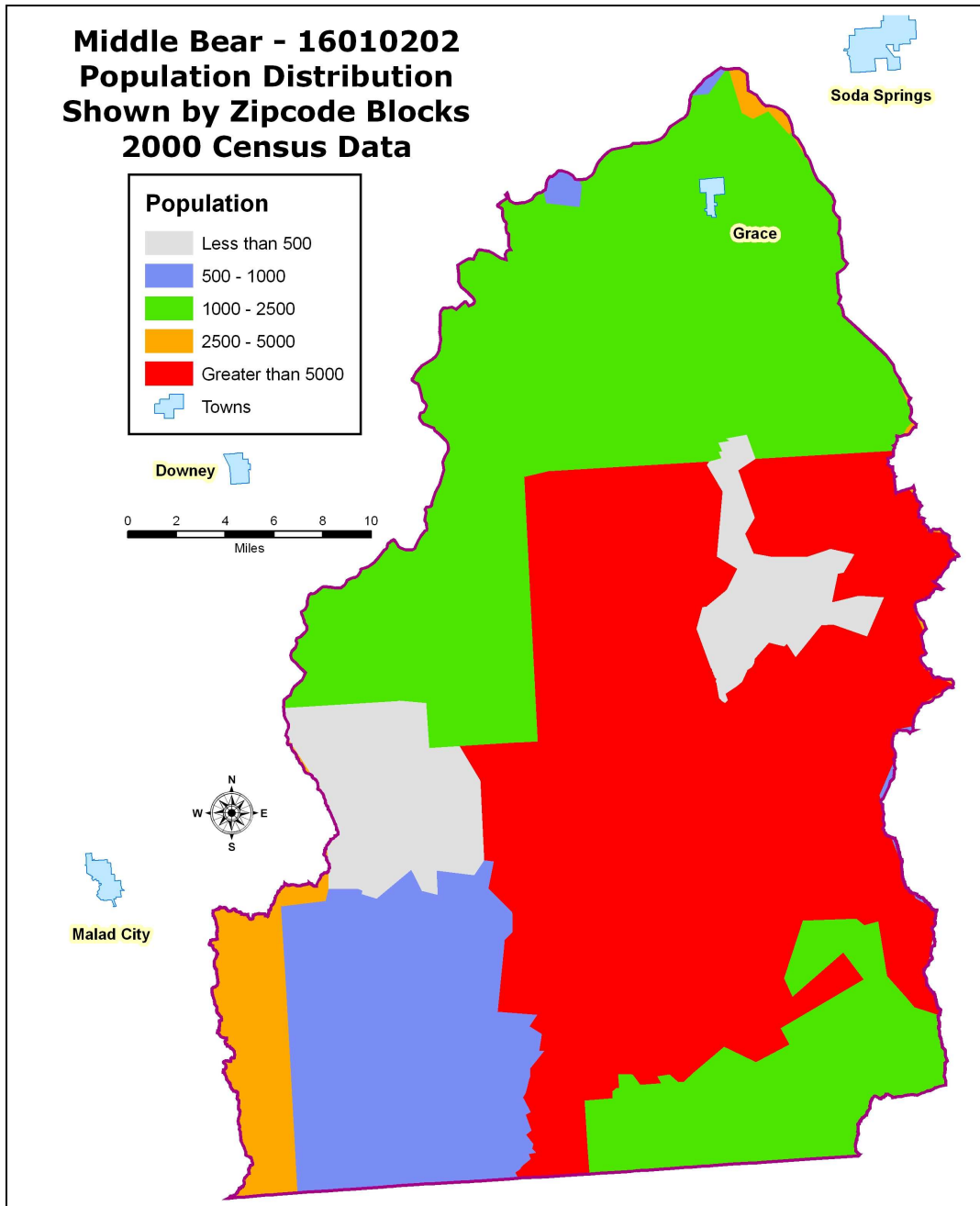
FEDERALLY LISTED THREATENED AND ENDANGERED SPECIES <sup>/25</sup>	
<b>Threatened Species</b> Mammals – Lynx Birds – Bald Eagle Fish – None Invertebrates – None Plants – None	<b>Candidate Species</b> Fish - None Birds – None
	<b>PROPOSED SPECIES</b> None
<b>ESSENTIAL FISH HABITAT</b> – None	<b>CRITICAL FISH HABITAT</b> - None <sup>/36</sup>

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

Population: 13,416

Number of Farms: 983

	0-49 acres	50-999 acres	1000+ acres
Number of Farms	424	476	83





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Idaho

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## Census and Social Data - continued

Forty nine 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 25% of the total. Ninety-six percent of all operators are white. Non-white operators are of Hispanic, American Indian, Asian, Pacific Islander, and mixed racial backgrounds.

Farm size ranges from less than 10 acres to more than 2,000 acres with an average of 440 acres. Agricultural land in the watershed is a mix of woodland, cropland, range, pasture and hayland. Land users in the watershed utilize EQIP, CRP, WHIP, Continuous CRP, CIP, ECC and other programs to implement conservation plans, as well as the state WQPA and 319 programs.

Farm size and market value of production decreased between 1997 and 2002. 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. Eighty 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	897	490	\$75,600	\$9,900
2002	983	440	\$63,600	\$11,600
Change	9.6%	-10.2%	-15.9%	17.2%

## Economic Profile

	Watershed	Idaho	United States
Population (2000)	13,416		
Per Capita Personal Income (2002)	\$19,500	\$25,476	\$30,906
Median Home Value (2000)	\$91,000	\$106,300	\$119,600
Percent Unemployment (2004)	4.5%	4.7%	5.5%
Percent Below Poverty Level (2003)	10.1%	11.8%	12.5%



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### Progress / Status

PRS DATA				
Conservation Treatment Applied	FY04	FY05	FY06	Total
Comprehensive Nutrient Management Plan (100) (no)			1	1
Conservation Completion Incentive (CCIA) First Year (no)			1	1
Conservation Cover (327) (ac)	5,893	459	332	6,684
Fence (382) (ft)	4,062	34,499	20,425	58,986
Forage Harvest Management (511) (ac)	137	56		193
Irrigation System, Microirrigation (441) (ac)	1,182			1,182
Irrigation System, Sprinkler (442) (ac)	5	83	252	340
Irrigation Water Conveyance, Pipeline, High-Pressure, Underground, Plastic (430DD) (ft)	11,619	24,698		36,317
Irrigation Water Conveyance, Pipeline, Low-Pressure, Underground, Plastic (430EE) (ft)	3,586		15,460	19,046
Irrigation Water Management (449) (ac)			56	56
Mulching (484) (ac)	4,082			4,082
Nutrient Management (590) (ac)	91		338	429
Pasture and Hay Planting (512) (ac)		52	40	92
Pest Management (595) (ac)	1,237	335	574	2,146
Pipeline (516) (ft)	4,269	755	613	5,637
Prescribed Grazing (528) (ac)		75	6,840	6,915
Prescribed Grazing (528A) (ac)	527	411	373	1,311
Pumping Plant (533) (no)	2	1	1	4
Residue Management, No-Till/Strip Till (329A) (ac)			338	338
Streambank and Shoreline Protection (580) (ft)		1,724	1,178	2,902
Structure for Water Control (587) (no)	1	5	11	17
Upland Wildlife Habitat Management (645) (ac)	2,677	278	7,064	10,019
Use Exclusion (472) (ac)	948	1	200	1,149
Waste Storage Facility (313) (no)			1	1
Water Well (642) (no)			1	1
Watering Facility (614) (no)	5	5	1	11
Wetland Wildlife Habitat Management (644) (ac)		23		23
Windbreak/Shelterbelt Establishment (380) (ft)	5,263			5,263



## Middle Bear - 16010202

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### Progress / Status - continued

Progress in the last seven years has been focused on:

- ~ erosion control
- ~ irrigation water management
- ~ nutrient management
- ~ water quality
- ~ upland wildlife habitat management

Resource concerns that require ongoing attention:

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

### Lands Removed from Production through Farm Bill Programs

- Conservation Reserve Program (CRP): **43,651**
- Wetland Restoration Program (WRP): **None**



## 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>
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 complete.  
[http://www.nrcs.usda.gov/programs/watershed/Surveys\\_Plnq.html#Watershed%20Surveys%20and%20Plan](http://www.nrcs.usda.gov/programs/watershed/Surveys_Plnq.html#Watershed%20Surveys%20and%20Plan)
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[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.  
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<http://www.agri.idaho.gov/gw/gwdatasummary.htm>
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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. USGS Publications Warehouse. <http://pubs.er.usgs.gov/usgspubs/>



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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/>
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.  
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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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## 8 Digit Hydrologic Unit Profile

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<b>Current Conditions (Private)</b>	Total Acres	Riparian Acres
Total Dry Cropland	52,326	2,524
Typical Management Unit/Ownership	440	
Current Farm Bill Participation	15%	

Current 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
Dry Cropland	Ac.	27,935			-3	-/+	-2	-3				
Conservation Cover (327)	Ac.	6684	\$ -	\$ 20,050					X			
Pest Management (595)	Ac.	23	\$ -	\$ 230					X			X
Residue Mgmt. No Till/Direct Seed (329)	Ac.	338	\$ -	\$ 1,520					X			X
Upland Wildlife Habitat Management (645)	Ac.	9017	\$ -	\$ 45,090					X	X		X
Dry Cropland Riparian	Ac.	2,524										
<b>Total RMS Costs</b>			\$ -	\$66,890								



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<b>Future Conditions</b>	Total Acres	Riparian Acres
Total Dry Cropland	52,326	
Conversion to Riparian RMS		2,524

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.	52,326			+2	+1	+1	+2				
Conservation Cover (327)	Ac.	13082	\$ 767,800	\$ 23,030					X	X		X
Conservation Crop Rotation (328)	Ac.	26163	\$ -	\$ -					X			
Contour Farming (330)	Ac.	31396	\$ 235,500	\$ 78,490					X			X
Deep Tillage (324)	Ac.	23547	\$ 23,500	\$ 7,850					X			
Filter Strip (393)	Ac.	1046	\$ 104,600	\$ 2,090					X			X
Grassed Waterway (412)	Ac.	523	\$ 941,400	\$ 18,830					X			X
Nutrient Management (590)	Ac.	2616	\$ 39,200	\$ 13,080					X			X
Pasture and Hay Planting (512)	Ac.	5,233	\$ 523,300	\$ 5,230					X			X
Pest Management (595)	Ac.	2616	\$ 77,800	\$ 25,930					X			X
Residue Mgmt. Mulch Till (345)	Ac.	10465	\$ 470,900	\$ 156,980					X			X
Residue Mgmt. No Till/Direct Seed (329)	Ac.	15698	\$ 1,382,400	\$ 69,120					X			X
Strip Cropping (585)	Ac.	1046	\$ 26,200	\$ 260					X			
Upland Wildlife Habitat Management (645)	Ac.	2616	\$ 0	\$ 13,080					X	X		X
Water and Sediment Control Basins (638)	Ea.	4360	\$ 4,360,000	\$ 130,800					X			X



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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
Dry Cropland Riparian	Ac.	2,524			+2	+1	+1	+2				
Channel Bank Vegetation (322)	Ac.	13	\$ 39,000	\$ 780					X	X		X
Channel Stabilization (584)	Ft.	3,242	\$ 64,800	\$ 320					X			X
Critical Area Planting (342)	Ac.	126	\$ 59,900	\$ 1,800					X	X		X
Fence (382)	Ft.	5,206	\$ 10,400	\$ 210					X	X		X
Riparian Herbaceous Cover (390)	Ac.	252	\$ 75,600	\$ 760					X	X		X
Stream Crossing (578)	No.	13	\$ 45,500	\$ 2,280					X			X
Streambank/Shoreline Prot. (580)	Ft.	3,242	\$ 145,900	\$ 2,920					X			X
Tree/Shrub Establishment (612)	Ac.	126	\$ 56,700	\$ 570					X	X		X
Use Exclusion (472)	Ac.	379	\$ 13,300	\$ 400					X			X
<b>Total RMS Costs</b>			<b>\$ 9,463,700</b>	<b>\$ 554,810</b>								



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<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		\$946,400	\$55,480
Potential Farm Bill Programs		\$8,517,300	\$499,330
Operator O&M and Management Cost			\$554,810
Annual Management Incentives ( 3yrs - Incentive Payments)		\$2,229,300	
Operator Investment		\$4,090,400	
Federal Costshare		\$3,144,000	
<b>Total RMS Costs</b>		<b>\$9,463,700</b>	<b>\$554,810</b>
Estimated Level of Participation			90%
Total Acres in RMS System			47,100
Anticipated Cost at Estimated Level of Participation			\$8,517,300
Participating landowners will be in compliance with TMDLs			
Improves habitat for ESA endangered and threatened species			





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Current Conditions	Total Acres
Surface Irrigated Cropland	6,220
Sprinkler Irrigated Cropland	55,980
Total Irrigated Cropland	62,200
Typical Management Unit/Ownership	440
Current Farm Bill Participation	15%

Current Level of Treatment for Irrigated Cropland												
Irrigated Cropland	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												
Surface Irrigated Cropland	Ac.	6,220			-3	-/+	-3	-3				
Irrigation System, Microirrigation (441)	Ac.	1182	\$ -	\$ 88,650					X			
Irrigation Water Conveyance, Pipeline, Low Pressure, Undergrd. Plastic, (430EE)	Ft.	9523	\$ -	\$ 190					X			
Irrigation Water Management (449)	Ac.	6	\$ -	\$ 100					X			
Nutrient Management (590)	Ac.	43	\$ -	\$ 220					X			
Pest Management (595)	Ac.	54	\$ -	\$ 540					X			X
Sprinkler Irrigated Cropland	Ac.	55,980			-3	-/+	-2	-2				
Irrigation System, Sprinkler (442)	Ac.	170	\$ -	\$ 1,870					X			
Irrigation Water Conveyance, Pipeline, High Pressure, Undergrd. Plastic, (430DD)	Ft.	18158	\$ -	\$ 490					X			
Irrigation Water Management (449)	Ac.	50	\$ -	\$ 500					X			
Nutrient Management (590)	Ac.	386	\$ -	\$ 1,930					X			
Pest Management (595)	Ac.	482	\$ -	\$ 4,820					X			X
Structure for Water Control (587)	No.	9	\$ -	\$ 100					X			
Windbreak/Shelterbelt Estab.(380)	Ac.	2368	\$ -	\$ 40					X	X		X
Riparian (Surface & Sprinkler) Irrigated Cropland	Ac.	3,001										
<b>Total RMS Costs</b>			<b>\$ -</b>	<b>\$ 99,450</b>								



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## 8 Digit Hydrologic Unit Profile

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Future Conditions	Total Acres	Riparian Acres
Surface Irrigated Cropland	3,110	
Sprinkler Irrigated Cropland	59,090	
Total Irrigated Cropland	62,200	3,001

Project Future Level of Treatment for Irrigated Cropland												
Irrigated 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
Practices	Unit	Quantity	Investment Cost	Annual O&M and Mngt.Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Surface Irrigated Cropland	Ac.	3,110			+2	+1	+1	+3				
Critical Area Planting (342)	Ac.	622	\$ 295,500	\$ 8,860					X	X		
Fence (382)	Ft.	1,945	\$ 3,400	\$ 70					X	X		X
Filter Strip (393)	Ac.	156	\$ 15,600	\$ 310					X			X
Heavy Use Protection (561)	Ac.	6	\$ 90,000	\$ 13,500					X			X
Irr Sys Micro Irrigation (441)	Ac.	311	\$ 0	\$ 23,300					X			X
Irrigation Water Conveyance, Pipeline, Low Pressure, Undergrd. Plastic, (430EE)	Ft.	6414	\$ 0	\$ 250					X			X
Irrigation Water Conveyance, Rigid Gated Pipe (430HH)	Ft.	6414	\$ 26,200	\$ 260					X			X
Irrigation Water Mgmt (449)	Ac.	653	\$ 19,400	\$ 6,470					X			X
Nutrient Mgmt (590)	Ac.	156	\$ 1,700	\$ 570					X			X
Pest Mgmt (595)	Ac.	933	\$ 26,400	\$ 8,790					X			X
Residue Mgmt (No-Till, Strip Till, Direct Seed) (329)	Ac.	1,244	\$ 112,000	\$ 37,320					X			
Riparian Forest Buffer (391)	Ac.	93	\$ 139,500	\$ 1,400					X	X		X
Riparian Herbaceous Cover (390)	Ac.	187	\$ 56,100	\$ 560					X	X		X
Tree/Shrub Establishment (612)	Ac.	311	\$ 144,600	\$ 1,450					X	X		X
Upland Wildlife Hab Mgmt (645)	Ac.	62	\$ 900	\$ 310					X	X		X
Use Exclusion (472)	Ac.	156	\$ 5,500	\$ 160					X			X
Windbreak/Shelterbelt Est. (380)	Ft.	6,414	\$ 27,700	\$ 280					X	X		X



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Project Future Level of Treatment for Irrigated Cropland												
Irrigated 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
<b>Sprinkler Irrigated Cropland</b>	Ac.	59,090			+2	±	+2	+3				
Critical Area Planting (342)	Ac.	5,909	\$ 2,806,800	\$ 84,200					X	X		
Fence (382)	Ft.	2,918	\$ 5,100	\$ 100					X	X		X
Filter Strip (393)	Ac.	1,182	\$ 118,200	\$ 2,360					X			X
Heavy Use Protection (561)	Ac.	30	\$ 450,000	\$ 67,500					X			X
Irrigation Sys Sprinkler (442)	Ac.	3,110	\$ 1,617,000	\$ 32,340					X			X
Irrigation Water Conveyance, Pipeline, High Pressure, Undergrd. Plastic, (430DD)	Ft.	60937	\$ 231,900	\$ 1,160					X			X
Irrigation Water Mgmt (449)	Ac.	35,454	\$ 1,062,100	\$ 354,040					X			X
Prescribed Grazing (528)	Ac.	23,636	\$ 354,500	\$ 118,180					X			
Pumping Plant (533)	No.	98	\$ 627,200	\$ 12,540					X			X
Riparian Forest Buffer (391)	Ac.	591	\$ 886,500	\$ 8,870					X	X		
Riparian Herbaceous Cover (390)	Ac.	1,182	\$ 354,600	\$ 3,550					X	X		
Structure for Water Control (587)	No.	98	\$ 44,500	\$ 450					X			
Tree/Shrub Establishment (612)	Ac.	1,182	\$ 549,600	\$ 5,500					X	X		X
Upland Wildlife Hab Mgmt (645)	Ac.	2,955	\$ 44,300	\$ 14,780					X	X		X
Use Exclusion (472)	Ac.	2,364	\$ 82,700	\$ 2,480					X			X
Windbreak/Shelterbelt Est. (380)	Ft.	60,937	\$ 87,900	\$ 880					X	X		X



Idaho

## Middle Bear – 16010202

### 8 Digit Hydrologic Unit Profile

July 2007

Project Future Level of Treatment for Irrigated Cropland												
Irrigated 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
Riparian (Surface & Sprinkler) Irrigated Cropland	Ac.	3,001			+2	+1	+2	+3				
Channel Bank Vegetation (322)	Ac.	30	\$ 155,300	\$ 3,110					X	X		X
Channel Stabilization (584)	Ft.	4,863	\$ 97,300	\$ 490					X			X
Critical Area Planting (342)	Ac.	600	\$ 285,000	\$ 8,550					X	X		
Fence (382)	Ft.	4,863	\$ 9,700	\$ 190					X	X		X
Heavy Use Protection (561)	Ac.	15	\$ 225,000	\$ 11,250					X			X
Prescribed Grazing (528)	Ac.	750	\$ 11,300	\$ 3,750					X			
Riparian Forest Buffer (391)	Ac.	150	\$ 225,000	\$ 2,250					X	X		X
Riparian Herbaceous Cover (390)	Ac.	300	\$ 90,000	\$ 900					X	X		X
Stream Crossing (578)	No.	30	\$ 105,000	\$ 5,250					X			X
Streambank/Shoreline Prot. (580)	Ft.	3,242	\$ 145,900	\$ 2,920					X			X
Tree/Shrub Establishment (612)	Ac.	150	\$ 67,500	\$ 680					X	X		X
Use Exclusion (472)	Ac.	90	\$ 3,200	\$ 90					X			X
Wetland Enhancement (659)	Ac.	90	\$ 180,000	\$ 1,800					X	X		X
Wetland Wildlife Hab. Mgmt.(644)	Ac.	120	\$ 1,800	\$ 600					X	X		X
<b>Total RMS Costs</b>			<b>\$ 11,889,400</b>	<b>\$ 854,650</b>								



Idaho

## Middle Bear – 16010202

8 Digit Hydrologic Unit Profile

July 2007

<b>Potential RMS Effects for Irrigated Cropland</b>			
<b>Cost Items and Programs</b>		<b>Costs</b>	<b>O&amp;M Costs</b>
Non Farm Bill Programs		\$4,755,800	\$341,860
Potential Farm Bill Programs		\$7,133,600	\$512,790
Operator O&M and Management Cost			\$854,650
Annual Management Incentives ( 3yrs - Incentive Payments)		\$1,634,400	
Operator Investment		\$7,505,400	
Federal Costshare		\$2,749,600	
<b>Total RMS Costs</b>		<b>\$11,889,400</b>	<b>\$854,650</b>
Estimated Level of Participation			60%
Total Acres in RMS System			37,300
Anticipated Cost at Estimated Level of Participation			\$7,133,600
Total Acre Feet of Water Saved Annually			35,460
Participating landowners will be in compliance with TMDLs			
Improves habitat for ESA endangered and threated species			



Idaho

# Middle Bear – 16010202

## 8 Digit Hydrologic Unit Profile

July 2007

<b>Current Conditions (Private)</b>		Total Acres	Riparian Acres									
Total Dry Grass/Pasture/Hay		75,608	9,766									
Typical Management Unit/Ownership		440										
Current Farm Bill Participation		15%										
<b>Current Level of Treatment for Dry Grass/Pasture/Hay:</b>												
Dry Grass/Pasture/Hay	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 Grass/Pasture/Hay	Ac.	75,608			-3	-/+	-2	-3				
Fence (382)	Ft.	3539	\$ -	\$ 140					X	X		X
Forage Harvest Management (511)	Ac.	97	\$ -	\$ -								
Pasture and Hay Planting (512)	Ac.	46	\$ -	\$ 50					X			X
Pest Management (595)	Ac.	536	\$ -	\$ 5,360					X			X
Prescribed Grazing (528)	Ac.	823	\$ -	\$ 4,120					X			X
Structure for Water Control (587)	Ea.	2	\$ -	\$ 20					X			X
Use Exclusion (472)	Ac.	575	\$ -	\$ 600					X			X
Watering Facility (614)	No.	2	\$ -	\$ 30					X			X
Windbreak/Shelterbelt Establishment (380)	Ft.	2632	\$ -	\$ 120					X	X		X
Dry Grass/Pasture/Hay Lands Riparian	Ac.	9,766			-2	-/+	-2	-2				
Fence (382)	Ft.	2,360	\$ -	\$ 100					X	X		X
Streambank/Shoreline Prot. (580)	Ft.	2177	\$ -	\$ 10,340					X	X		X
<b>Total RMS Costs</b>			\$ -	\$ 20,880								



Idaho

# Middle Bear – 16010202

## 8 Digit Hydrologic Unit Profile

July 2007

Future Conditions		Total Acres	Riparian Acres
Total Dry Grass/Pasture/Hay Lands		75,608	
Conversion to Riparian RMS			9,766

Project Future Level of Treatment for Dry Grass/Pasture/Hay Lands												
Dry 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>Dry Grass/Pasture/Hay Land</b>	<b>Ac.</b>	<b>75,608</b>			<b>+3</b>	<b>+2</b>	<b>+2</b>	<b>+3</b>				
Brush Management (314)	Ac.	1512	\$ 30200	\$ 300					X			X
Fence (wire-4 strand) (382)	Ft.	77,971	\$ 148,900	\$ 2,980					X	X		X
Forage Harvest Management (511)	Ac.	37,804	\$ -	\$ -					X			
Nutrient Management (590)	Ac.	1,512	\$ 22,700	\$ 7,560					X			X
Pest Management (595)	Ac.	30,243	\$ 891,200	\$ 297,070					X			X
Pipeline (516)	Ft.	38,985	\$ 105,300	\$ 2,110					X			X
Prescribed Grazing (528)	Ac.	56,706	\$ 838,200	\$ 279,420					X			X
Pumping Plant (533)	No.	126	\$ 806,400	\$ 16,130					X			X
Spring Development (574)	No.	126	\$ 296,100	\$ 14,810					X			X
Upland Wildlife Habitat Management (645)	Ac.	11,341	\$ 170,100	\$ 56,710					X	X		X
Use Exclusion (472)	Ac.	3,780	\$ 112,200	\$ 3,370					X			X
Water and Sediment Control Basins (638)	Ea.	302	\$ 302,000	\$ 9,060					X			X
Watering Facility (614)	No.	151	\$ 223,500	\$ 2,240					X			X
Water Well (642)	No.	38	\$ 152,000	\$ 1,520					X			X
Windbreak/Shelterbelt Estab. (380)	Ft.	2,268	\$ 3,400	\$ 30					X	X		X



Idaho

## Middle Bear – 16010202

### 8 Digit Hydrologic Unit Profile

July 2007

Project Future Level of Treatment for Dry Grass/Pasture/Hay Lands												
Dry Grass/Pasture/Hay Land	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 Grass/Pasture/Hay Lands Riparian	Ac.	9,766			+3	+2	+3	+3				
Channel Bank Vegetation (322)	Ac.	49	\$ 147,000	\$ 2,940					X			X
Channel Stabilization (584)	Ft.	3,242	\$ 64,800	\$ 320					X			X
Fence (wire-4 strand) (382)	Ft.	20,142	\$ 33,200	\$ 710					X	X		X
Heavy Use Area Protection (561)	Ac.	15	\$ 225,000	\$ 11,250					X			X
Pest Management (595)	Ac.	4,883	\$ 146,500	\$ 48,830					X			X
Prescribed Grazing (528)	Ac.	6,836	\$ 102,500	\$ 34,180					X			X
Riparian Forest Buffer (391)	Ac.	977	\$1,465,500	\$ 14,660					X			X
Stream Crossing (578)	No.	39	\$ 136,500	\$ 6,830					X			X
Streambank/Shoreline Protection (580)	Ft.	3,242	\$ 47,900	\$ 960					X			X
Tree/Shrub Establishment (612)	Ac.	98	\$ 44,100	\$ 440					X			X
Use Exclusion (472)	Ac.	2,442	\$ 85,500	\$ 2,560					X	X		X
<b>Total RMS Costs</b>			<b>\$ 6,600,700</b>	<b>\$ 816,990</b>								





Idaho

## Middle Bear – 16010202

8 Digit Hydrologic Unit Profile

July 2007

<b>Potential RMS Effects for Dry Grass/Pasture/Hayland</b>			
<b>Cost Items and Programs</b>		<b>Costs</b>	<b>O&amp;M Costs</b>
Non Farm Bill Programs		\$2,640,300	\$326,800
Potential Farm Bill Programs		\$3,960,400	\$490,200
Operator O&M and Management Cost			\$817,000
Annual Management Incentives ( 3yrs - Incentive Payments)		\$2,171,200	
Operator Investment		\$3,534,900	
Federal Costshare		\$894,600	
<b>Total RMS Costs</b>		<b>\$6,600,700</b>	<b>\$817,000</b>
Estimated Level of Participation			60%
Total Acres in RMS System			45,400
Anticipated Cost at Estimated Level of Participation			\$3,960,400
Total Annual Forage Production Benefits (animal unit months)			5,645
Participating landowners will be in compliance with TMDLs			
Improves habitat for ESA endangered and threatened species			



Idaho

## Middle Bear – 16010202

### 8 Digit Hydrologic Unit Profile

July 2007

Current Conditions (Private)	Total Acres	Riparian Acres
Surface Irrigated Grass/Pasture/Hay	3,840	
Sprinkler Irrigated Grass/Pasture/Hay	34,560	
Total Irrigated Grass/Pasture/Hay	38,400	3,890
Typical Management Unit/Ownership	440	
Current Farm Bill Participation	15%	

Current Level of Treatment for Irrigated Grass/Pasture/Hay:												
Grass/Pasture/Hay	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Investment Cost	Annual O&M and Mngt.Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Surface Irrigated Grass/Pasture/Hay	Ac.	3,840			-3	-/+	-2	-3				
Conservation Cover (327)	Ac.	5898	\$ -	\$ 17,690					X			
Fence (382)	Ft.	2949	\$ -	\$ 120					X	X		X
Forage Harvest Management (511)	Ac.	48	\$ -	\$ -								
Irrigation Water Conveyance, Low Pressure, Pipeline, (430EE)	Ft.	9523	\$ -	\$ 190					X			X
Pasture and Hay Planting (512)	Ac.	23	\$ -	\$ 20					X			X
Pest Management (595)	Ac.	536	\$ -	\$ 5,360					X			X
Prescribed Grazing (528)	Ac.	4113	\$ -	\$ 20,570					X			X
Structure for Water Control (587)	Ea.	2	\$ -	\$ 20					X			X
Use Exclusion (472)	Ac.	287	\$ -	\$ 300					X			X
Windbreak/Shelterbelt Establishment (380)	Ft.	1316	\$ -	\$ 60					X	X		X



# Middle Bear – 16010202

Idaho

## 8 Digit Hydrologic Unit Profile

July 2007

Current Level of Treatment for Irrigated Grass/Pasture/Hay:												
Grass/Pasture/Hay	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
Sprinkler Irrigated Grass/Pasture/Hay	Ac.	34,560			-2	-/+	-2	-2				
Conservation Cover (327)	Ac.	5899	\$ -	\$ 17,700								
Fence (382)	Ft.	2949	\$ -	\$ 120					X	X		X
Forage Harvest Management (511)	Ac.	48	\$ -	\$ -								
Irrigation System Sprinkler (442)	Ac.	170	\$ -	\$ 1,870					X			X
Irrigation Water Conveyance, High Pressure Pipeline, (430DD)	Ft.	18159	\$ -	\$ 490					X			X
Pasture and Hay Planting (512)	Ac.	23	\$ -	\$ 20					X			X
Pest Management (595)	Ac.	536	\$ -	\$ 5,360					X			X
Prescribed Grazing (528)	Ac.	4113	\$ -	\$ 20,570					X			X
Pumping Plant (533)	Ea.	2	\$ -	\$ 130					X			X
Structure for Water Control (587)	Ea.	4	\$ -	\$ 40					X			X
Use Exclusion (472)	Ac.	287	\$ -	\$ 300					X			X
Windbreak/Shelterbelt Establishment (380)	Ft.	1316	\$ -	\$ 60					X	X		X
Irrigated Grass/Pasture/Hayland Riparian (Surface and Sprinkler)	Ac.	3,890										
<b>Total RMS Costs</b>			\$ -	\$ 90,990								



Idaho

# Middle Bear – 16010202

## 8 Digit Hydrologic Unit Profile

July 2007

Future Conditions	Total Acres	Riparian Acres
Surface Irrigated Grass/Pasture/Hay	1,920	
Sprinkler Irrigated Grass/Pasture/Hay	36,480	
Total Irrigated Grass/Pasture/Hay	38,400	
Conversion to Riparian RMS		3,890

Project Future Level of Treatment for Irrigated Grass/Pasture/Hay Lands					Effects				Implementation			
Irrigated Grass/Pasture/Hay Land	Quantity		Costs		Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Practices	Unit	Quantity	Investment Cost	Annual O&M and Mngt. Cost								
Surface Irrigated Grass/Pasture/Hay	Ac.	1,920			+1	+/-	+1	+2				
Cover Crop (340)	ac.	192	\$ 9,600	\$ 100					X			
Fence (382)	ft.	7,920	\$ 9,900	\$ 200					X	X		X
Forage Harvest Management (511)	ac.	864	\$ -	\$ -								
Heavy Use Area Protection (561)	ac.	30	\$ 450,000	\$ 67,500					X			X
Irr. System, Microirrigation (441)	ac.	480	\$ 720,000	\$ 36,000					X			X
Irr. Wtr. Conveyance, Pipeline, Rigid Gated Pipeline (430HH)	ft.	3,960	\$ 16,200	\$ 160					X			X
Irrigation Water Management (449)	ac.	1,248	\$ 37,400	\$ 12,480					X			X
Nutrient Management (590)	ac.	96	\$ 1,400	\$ 480					X			
Pasture and Hay Planting (512)	ac.	192	\$ 16,900	\$ 170					X			X
Pest Management (595)	ac.	864	\$ 9,800	\$ 3,280					X			X
Pipeline (516)	ft.	3,960	\$ 10,700	\$ 210					X			X
Prescribed Grazing (528)	ac.	960	\$ -	\$ 4,800					X			X
Upland Wildlife Habitat Management (645)	ac.	96	\$ 1,400	\$ 480					X	X		X
Use Exclusion (472)	ac.	96	\$ -	\$ 100					X			X
Watering Facility (614)	no.	3	\$ 3,200	\$ 30					X			X
Windbreak/Shelterbelt Establishment (380)	ft.	58	\$ -	\$ -					X	X		X



Idaho

# Middle Bear – 16010202

## 8 Digit Hydrologic Unit Profile

July 2007

Project Future Level of Treatment for Irrigated Grass/Pasture/Hay Lands												
Irrigated Grass/Pasture/Hay Land	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>Sprinkler Irrigated Grass/Pasture/Hay</b>	<b>Ac.</b>	<b>36,480</b>			<b>+2</b>	<b>+/-</b>	<b>+1</b>	<b>+2</b>				
Conservation Crop Rotation (328)	ac.	23,712	\$ -	\$ -					X			
Conservation Cover (327)	ac.	16,416	\$1,051,700	\$ 31,550					X	X		
Fence (382)	ft.	18,810	\$ 31,700	\$ 630					X	X		X
Cover Crop (340)	ac.	16,416	\$ 820,800	\$ 8,210					X			
Forage Harvest Management (511)	ac.	24,806	\$ -	\$ -								
Heavy Use Area Protection (561)	ac.	60	\$ 900,000	\$ 135,000					X			X
Irr. Wtr. Conveyance, Pipeline, High Pressure, Undergrd, Plastic (430DD)	ft.	12,411	\$ -	\$ 340					X			X
Irrigation System, Sprinkler (442)	ac.	1,920	\$ 962,500	\$ 19,250					X			X
Irrigation Water Management (449)	ac.	16,416	\$ 492,480	\$ 164,160					X			X
Nutrient Management (590)	ac.	1,824	\$ 27,400	\$ 9,120					X			
Pasture and Hay Planting (512)	ac.	9,120	\$ 909,700	\$ 9,100					X			X
Pest Management (595)	ac.	3,648	\$ 93,400	\$ 31,120					X			X
Pipeline (516)	ft.	9,405	\$ 25,400	\$ 510					X			X
Prescribed Grazing (528)	ac.	29,184	\$ 376,100	\$ 125,360					X			X
Upland Wildlife Habitat Management (645)	ac.	1,459	\$ 21,900	\$ 7,300					X	X		X
Use Exclusion (472)	ac.	1,094	\$ 28,200	\$ 850					X			X
Watering Facility (614)	no.	61	\$ 91,500	\$ 920					X			X
Windbreak/Shelterbelt Establishment (380)	ft.	2,189	\$ 3,900	\$ 40					X	X		X



Idaho

## Middle Bear – 16010202

### 8 Digit Hydrologic Unit Profile

July 2007

Project Future Level of Treatment for Irrigated Grass/Pasture/Hay Lands												
Irrigated Grass/Pasture/Hay Land	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
Irrigated Grass/Pasture/Hayland Riparian (Surface and Sprinkler)	Ac.	3890			+2	+1	+3	+3				
Channel Bank Vegetation (322)	Ac.	39	\$ 201,800	\$ 4,040					X	X		X
Channel Stabilization (584)	Ft.	3,242	\$ 64,800	\$ 320					X			X
Fence (382)	Ft.	8,023	\$ 16,000	\$ 320					X	X		X
Filter Strip (393)	Ac.	973	\$ 97,300	\$ 1,950					X			X
Heavy Use Protection (561)	Ac.	5	\$ 75,000	\$ 11,250					X			X
Pest Management (595)	Ac.	1,945	\$ 58,400	\$ 19,450					X			X
Prescribed Grazing (528)	Ac.	1,167	\$ 17,500	\$ 5,840					X			
Riparian Forest Buffer (391)	Ac.	584	\$ 876,000	\$ 8,760					X	X		X
Riparian Herbaceous Cover (390)	Ac.	467	\$ 140,100	\$ 1,400					X	X		X
Stream Crossing (578)	No.	39	\$ 136,500	\$ 6,830					X			X
Stream Habitat Improvement and Management (395)	Ac.	19	\$ 340,100	\$ 6,800					X	X		X
Streambank/Shoreline Prot. (580)	Ft.	4,863	\$ 231,000	\$ 23,100					X			X
Tree/Shrub Establishment (612)	Ac.	195	\$ 87,800	\$ 880					X	X		X
Use Exclusion (472)	Ac.	1,167	\$ 40,800	\$ 1,230					X			X
Wetland Creation (658)	Ac.	78	\$ 390,000	\$ 3,900					X			
Wetland Enhancement (659)	Ac.	78	\$ 156,000	\$ 1,560					X			X
Wetland Wildlife Hab. Mgmt (644)	Ac.	156	\$ 2,300	\$ 780					X	X		X
<b>Total RMS Costs</b>			<b>\$10,054,580</b>	<b>\$ 767,860</b>								



Idaho

## Middle Bear – 16010202

8 Digit Hydrologic Unit Profile

July 2007

<b>Potential RMS Effects for Irrigated Grass/Pasture/Hayland</b>			
<b>Cost Items and Programs</b>		<b>Costs</b>	<b>O&amp;M Costs</b>
Non Farm Bill Programs		\$4,021,800	\$307,100
Potential Farm Bill Programs		\$6,032,800	\$460,800
Operator O&M and Management Cost			\$767,900
Annual Management Incentives ( 3yrs - Incentive Payments)		\$1,137,180	
Operator Investment		\$6,469,600	
Federal Costshare		\$2,447,800	
<b>Total RMS Costs</b>		<b>\$10,054,580</b>	<b>\$767,900</b>
Estimated Level of Participation			60%
Total Acres in RMS System			23,040
Anticipated Cost at Estimated Level of Participation			\$6,032,700
Total Annual Forage Production Benefits (animal unit months)			93,930
Total Acre Feet of Water Saved Annually			22,510
Increases infiltration and storage of water in soil profile			
Participating landowners will be in compliance with TMDLs			
Improves habitat for ESA endangered and threatened species			



Idaho

## Middle Bear – 16010202

### 8 Digit Hydrologic Unit Profile

July 2007

Current Conditions	Total Acres	Riparian Acres
Total Shrub/Range Land	111,672	6,860
Typical Management Unit/Ownership	440	
Current Farm Bill Participation	15%	

Current 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>111,672</b>			<b>-2</b>	<b>-1</b>	<b>-2</b>	<b>-2</b>				
Fence (wire-4 strand) (382)	Ft	47,188	\$ -	\$ 9,440					X	X		X
Pest Management (590)	Ac	536	\$ -	\$ 5,360					X			X
Pipeline (516)	Ft	5,637	\$ -	\$ 300					X			X
Prescribed Grazing (528)	Ac	7,403	\$ -	\$ 37,020					X			X
Pumping Plant (533)	No	2	\$ -	\$ 70					X			X
Upland Wildlife Habitat Management (645)	Ac	1,002	\$ -	\$ 5,010					X			X
Watering Facility (614)	No	9	\$ -	\$ 90					X			X
Water Well (642)	No	1	\$ -	\$ 40					X			X
Shrub/Rangeland Riparian	Ac.	6,860										
<b>Total RMS Costs</b>			<b>\$ -</b>	<b>\$ 57,330</b>								





Idaho

## Middle Bear – 16010202

### 8 Digit Hydrologic Unit Profile

July 2007

Future Conditions		Total Acres	Riparian Acres
Total Shrub/Rangeland		111,672	
Conversion to Riparian RMS			6,860

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/Rangeland</b>	<b>Ac.</b>	<b>111,672</b>			<b>+3</b>	<b>+2</b>	<b>+3</b>	<b>+3</b>				
Brush Management (314)	ac	3,350	\$ 83,800	\$ 840					X			
Fence (wire-4 strand) (382)	ft	57,581	\$ 20,800	\$ 420					X	X		X
Heavy Use Area Protection (561)	ac	30	\$ 450,000	\$ 22,500					X			X
Pest Management (590)	ac	3,350	\$ 84,400	\$ 28,140					X			X
Pipeline (516)	ft	38,387	\$ 88,400	\$ 1,770					X			X
Prescribed Grazing (528)	ac	50,252	\$ 642,700	\$ 214,250					X			X
Pumping Plant (533)	no	186	\$ 634,800	\$ 12,700					X			X
Range Planting (550)	ac	33,502	\$3,015,200	\$ 30,150					X			X
Spring Development (574)	no	93	\$ 218,600	\$ 10,930					X			X
Upland Wildlife Habitat Management (645)	ac	6,700	\$ 85,500	\$ 28,490					X	X		X
Watering Facility (614)	no	186	\$ 265,500	\$ 2,660					X			X
Water Well (642)	no	93	\$ 736,000	\$ 7,360					X			X



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## Middle Bear – 16010202

### 8 Digit Hydrologic Unit Profile

July 2007

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/Rangeland Riparian</b>	Ac.	6,860			+2	+1	+3	+2				
Channel Bank Vegetation (322)	Ac.	206	\$ 618,000	\$ 12,360					X			X
Critical Area Planting (342)	Ac.	343	\$ 162,900	\$ 4,890					X			X
Fence (382)	Ft.	14,194	\$ 28,400	\$ 570					X	X		X
Heavy Use Area Protection (561)	Ac.	15	\$ 225,000	\$ 33,750					X			X
Pest Management (595)	Ac.	206	\$ 6,200	\$ 2,060					X			X
Pipeline (516)	Ft.	7,074	\$ 19,100	\$ 380					X			X
Prescribed Grazing (528)	Ac.	343	\$ 5,100	\$ 1,720					X			X
Pumping Plant (533)	Ea.	11	\$ 19,300	\$ 390					X			X
Riparian Forest Buffer (391)	Ac.	206	\$ 309,000	\$ 3,090					X			X
Spring Development (574)	Ea.	11	\$ 25,900	\$ 130					X			X
Stream Crossing (578)	No.	69	\$ 241,500	\$ 12,080					X			X
Structure for Water Control (587)	Ea.	11	\$ 12,300	\$ 120					X			X
Tree/Shrub Establishment (612)	Ac.	274	\$ 123,300	\$ 1,230					X	X		X
Use Exclusion (472)	Ac.	1,715	\$ 60,000	\$ 1,800					X			X
Watering Facility	No.	11	\$ 16,500	\$ 170					X			X
<b>Total RMS Costs</b>			<b>\$8,198,200</b>	<b>\$434,950</b>								



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**Middle Bear – 16010202**  
8 Digit Hydrologic Unit Profile

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<b>Potential RMS Effects for Shrub/Rangeland</b>			
Cost Items and Programs		Costs	O&M Costs
Non Farm Bill Programs		\$3,279,300	\$173,980
Potential Farm Bill Programs		\$4,918,900	\$260,970
Operator O&M and Management Cost			\$434,950
Annual Management Incentives ( 3yrs - Incentive Payments)		\$823,900	
Operator Investment		\$5,326,800	
Federal Costshare		\$2,047,500	
<b>Total RMS Costs</b>		<b>\$8,198,200</b>	<b>\$434,950</b>
Estimated Level of Participation			60%
Total Acres in RMS System			67,000
Anticipated Cost at Estimated Level of Participation			\$4,918,900
Total Annual Forage Production Benefits (animal unit months)			4,982
Participating landowners will be in compliance with TMDLs			
Improves habitat for ESA endangered and threatened species			



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# Middle Bear – 16010202

## 8 Digit Hydrologic Unit Profile

July 2007

### Conservation Activities for Headquarters

Confined Animal Feed Operations (CAFO – 700 Head Dairies or 1,000 Head Feeder Cattle) and Animal feed Operations (AFO 200-700 Head, Dairy of 300 to 1,000 Head Feeder Cattle) are variable in complexity depending on size, number of cows and location of the waste storage facility. Kinds and amounts of component practices required for proper operation are site specific, but typically include the following practices. Note that an AFO can be designated as a CAFO regardless of number of animals if it is found to be a significant polluter.

Anaerobic Digester (366), Composting Facility (317), Access Road (560), Dikes (356), Diversions (362), Fence (382), Heavy Use Area Protection (561), Irrigation Water Conveyance (430EE) (430DD), Pipeline (516), Pond (378), Pond Sealing or Lining (521), Pump Plant (533), Roof Runoff Structure (558), Separator Structure for Water Control (587), Underground Outlet (620), Waste Treatment Lagoon (359), Watering Facility (614), Well Decommissioning (355) Windbreak/Shelter Establishment (380), Dry Stack Areas and Ramps.

Management practices commonly used include Critical Area Planting (342), Filter Strip (393), Manure Transfer (634), Nutrient Management (590), Pest Management (595) and Waste Utilization (633).

Current conditions and future needs for CAFOs and AFOs reflect the following component practices of Waste Storage Facility (313).

Current Conditions (Private)	Total Acres
CAFOs	2
AFOs	317
Total CAFOs and AFOs	319
Current Farm Bill Participation	90

Current Level of Treatment for Headquarters:													
Practices	Quantity		Costs		Annual O&M and Mngt.Cost	Effects				Implementation			
	Unit	Quantity	Investment Cost			Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
<b>Dairy</b>						-1	-1	-3	-3				
Waste Storage Facility -CAFO (313)	No.	1	\$ -	\$ 1,750						X			X
Waste Storage Facility - AFO (313)	No.	110	\$ -	\$ 99,000						X			X
<b>Feed Lot</b>													
Waste Storage Facility -CAFO (313)	No.	0	\$ -	\$ -						X			X
Waste Storage Facility - AFO (313)	No.	197	\$ -	\$ 177,300						X			X
<b>Total RMS Costs</b>			<b>\$ -</b>	<b>\$ 278,050</b>									



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## Middle Bear – 16010202

### 8 Digit Hydrologic Unit Profile

July 2007

Number of Dairies and Feedlots needing treatment were estimated based on input from Idaho Department of Agriculture and the local NRCS Field Office

Project Future Level of Treatment for Headquarters												
Practices	Quantity		Costs		Effects				Implementation			
	Unit	Quantity	Investment Cost	Annual O&M and Mngt.Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	CREP	Other
Dairy					+2	+1	+2	+2				
Structural / Management Practices												
Waste Storage Facility -CAFO (313)	No.	1	\$ -	\$ 1,750					X			X
Waste Storage Facility - AFO (313)	No.	110	\$ -	\$ 99,000					X			X
Feed Lot					+2	+1	+2	+2				
Structural / Management Practices												
Waste Storage Facility -CAFO (313)	No.	1	\$ 87,500	\$ 1,750					X			X
Waste Storage Facility - AFO (313)	No.	207	\$ 450,000	\$ 186,300					X			X
<b>Total RMS Costs</b>			<b>\$ 537,500</b>	<b>\$ 288,800</b>								



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## Middle Bear – 16010202

8 Digit Hydrologic Unit Profile

July 2007

<b>Potential RMS Effects for Headquarters</b>			
<b>Cost Items and Programs</b>		<b>Costs</b>	<b>O&amp;M Costs</b>
Non Farm Bill Programs		\$53,800	\$28,880
Potential Farm Bill Programs		\$483,700	\$259,920
Operator O&M and Management Cost			\$288,800
Annual Management Incentives ( 3yrs - Incentive Payments)		\$53,800	
Operator Investment		\$268,800	
Federal Costshare		\$214,900	
<b>Total RMS Costs</b>		<b>\$537,500</b>	<b>\$288,800</b>
Estimated Level of Participation			90%
Total CAFO/AFO in RMS System			287
Anticipated Cost at Estimated Level of Participation			\$483,800
Reduces impact to ground and surface water quality			
90% participation reflects Local, State and Federal regulations			