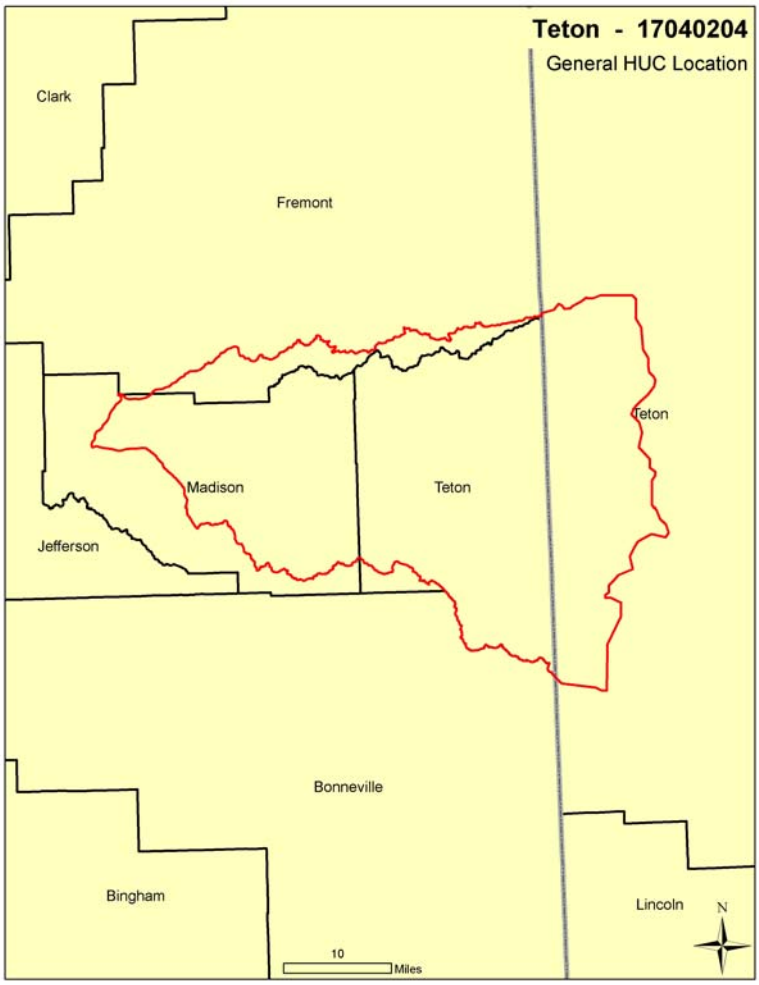
Teton - 17040204

Idaho 8 Digit Hydrologic Unit Profile February 2008



Introduction

The Teton 8-Digit Hydrologic Unit Code (HUC) subbasin contains 700,960 acres. Forty percent of the subbasin is in Teton County, twenty-seven percent is in Madison County and seven percent is in Fremont County, Idaho. Twenty-seven percent is in Teton County, Wyoming. Fifty-four percent of the basin is privately owned and forty-six percent is publicly owned.

Forty-one percent of the basin is in shrub, rangeland, grass, pasture or hayland, thirty-five percent of the basin is in forest, water, wetlands, developed or barren, and twenty-four percent is cropland.

Elevations range from 11,005 feet in the eastern part of the HUC to 4,814 feet at the basin outlet on the west.

Conservation assistance is provided by one Conservation District in Wyoming, two Soil Conservation Districts and one Soil and Water Conservation District in Idaho, and one Resource Conservation and Development office.

Profile Contents

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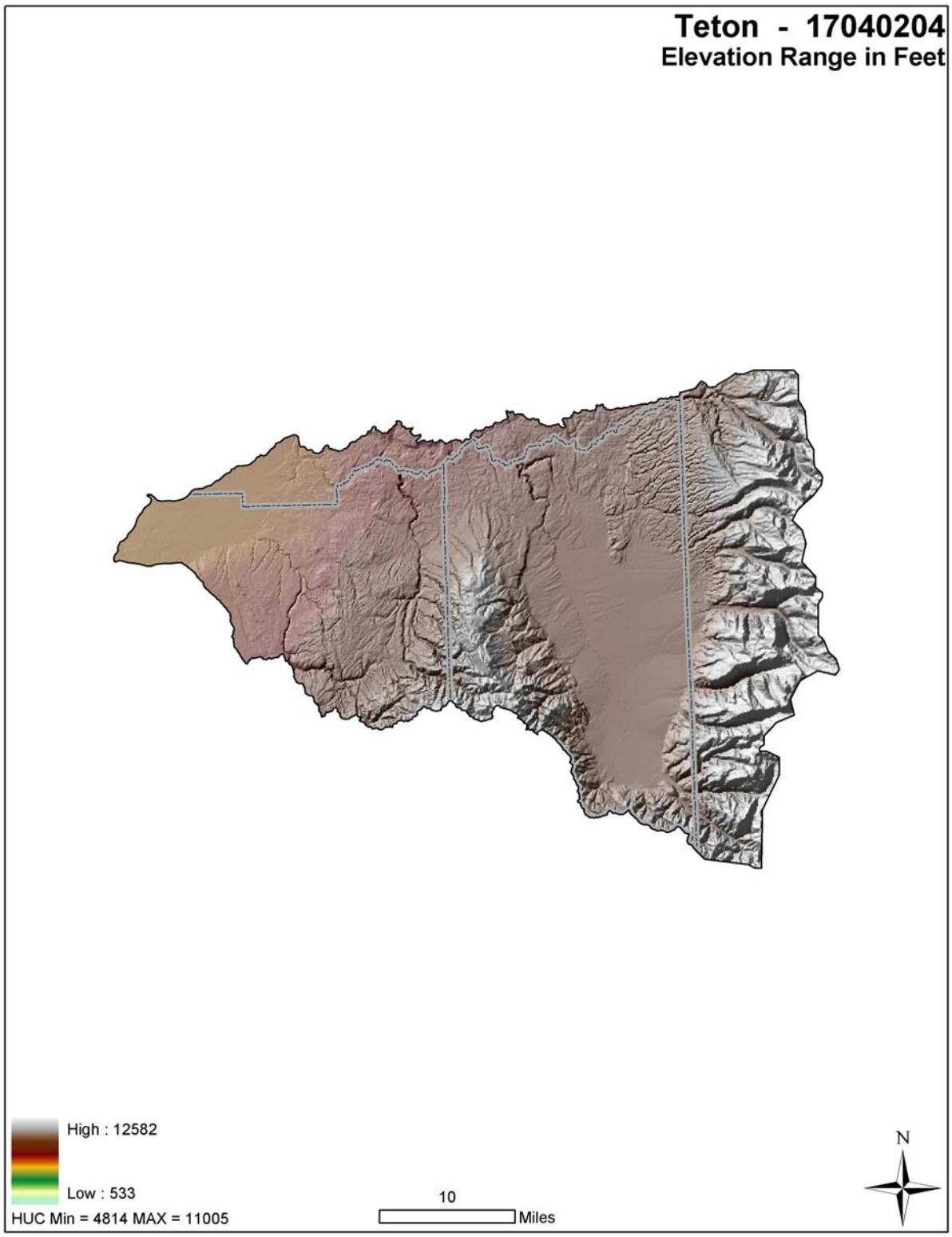
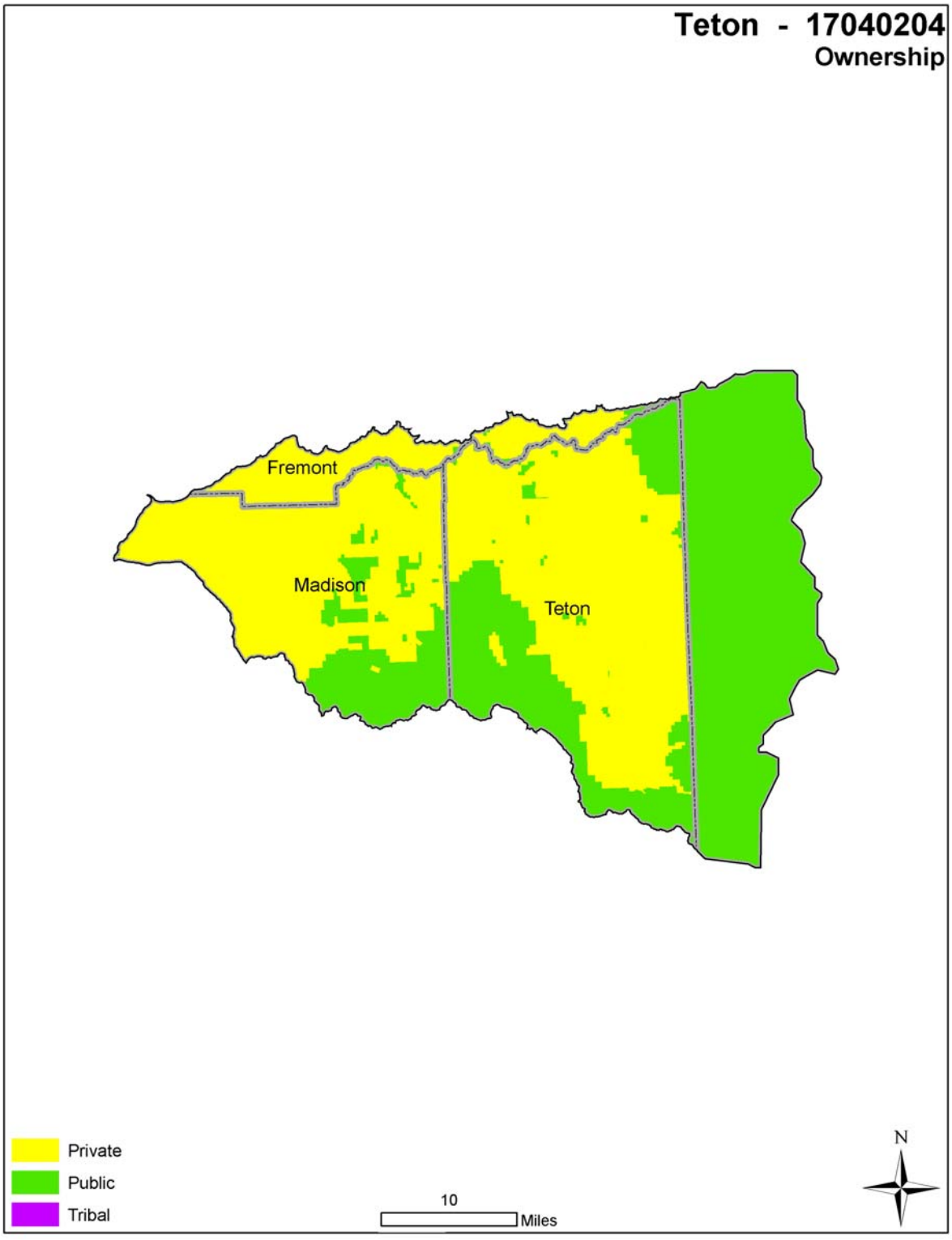
Relief Map


Teton - 17040204
Elevation Range in Feet
High : 12582
Low : 533
HUC Min = 4814 MAX = 11005
10
Miles
N

General Ownership[/1]



Physical Description

Land Cover / Land Use (NLCD[1,2])	Ownership - (2003 Draft BLM Surface Map Set[1])							
	Public		Private		Tribal		Totals	% of HUC
	Acres	%	Acres	%		%		
Forest	186,700	27	14,700	2	0	--	201,400	29
Grain Crops	--	--	82,200	12	0	--	82,200	12
Conservation Reserve Program (CRP) Land[3]	--	--	(26,340)	(4)	0	--	(26,340)	(4)
Grass/Pasture/Hay Lands	44,100	6	143,700	20	0	--	187,800	27
Orchards/Vineyards/Berries	--	--	0	--	0	--	0	0
Row Crops	--	--	83,300	12	0	--	83,300	12
Shrub/Rangelands	58,700	9	41,500	6	0	--	100,200	14
Water/Wetlands/ Developed/Barren	30,200	4	15,400	2	0	--	45,600	6
Idaho HUC Totals	**319,700**	**46**	**380,800**	**54**	**0**	**0**	**700,500**	**100**

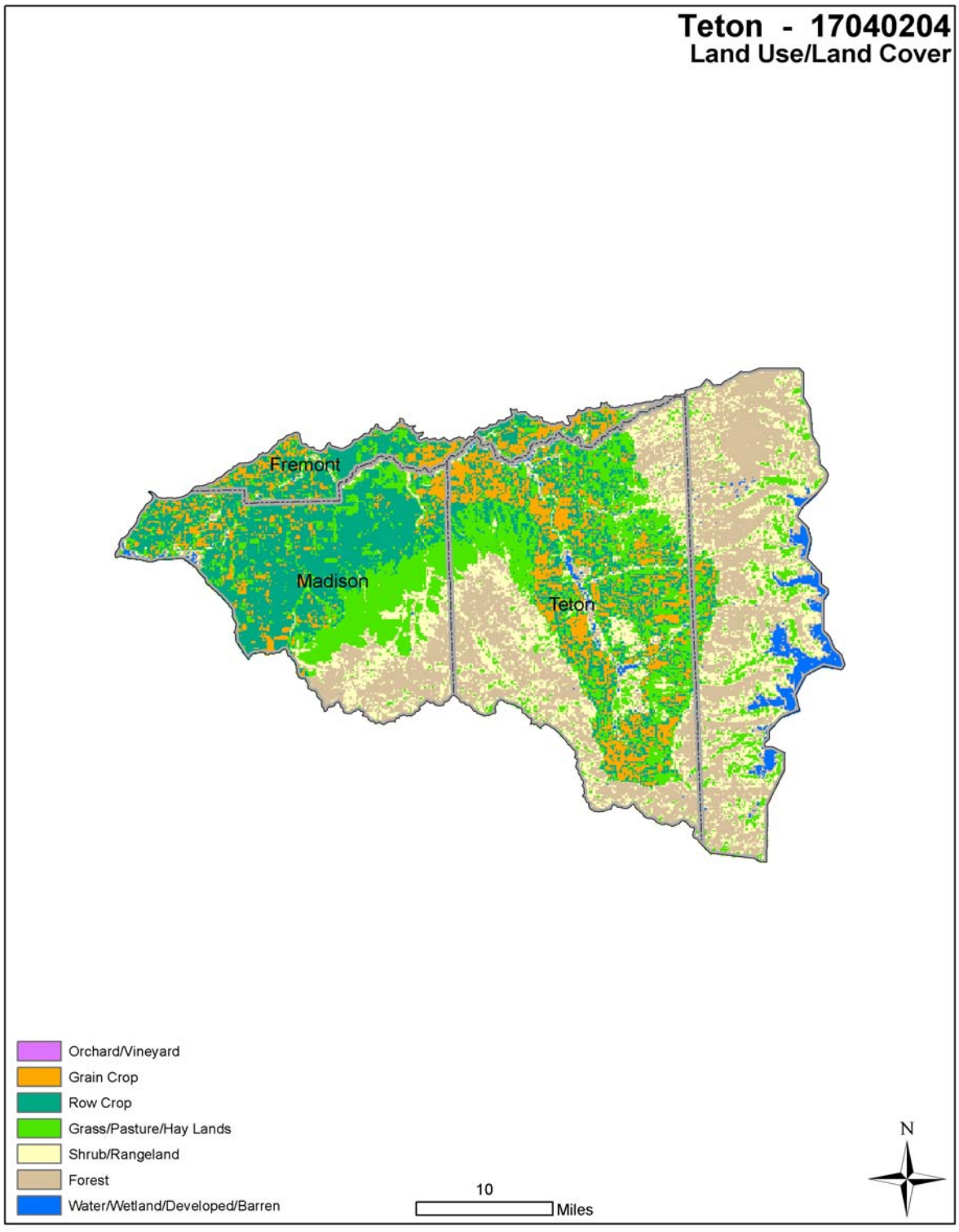
Irrigated Lands[4]	Type of Land	ACRES	% of Irrigated Lands	% of HUC
	Cultivated Cropland	148,800	82	21
	Non-Cultivated Cropland *	22,900	13	3
	Pastureland	9,200	5	1
	Total Irrigated Lands	**180,900**	**100**	**25**

* Includes permanent hayland and horticultural cropland.

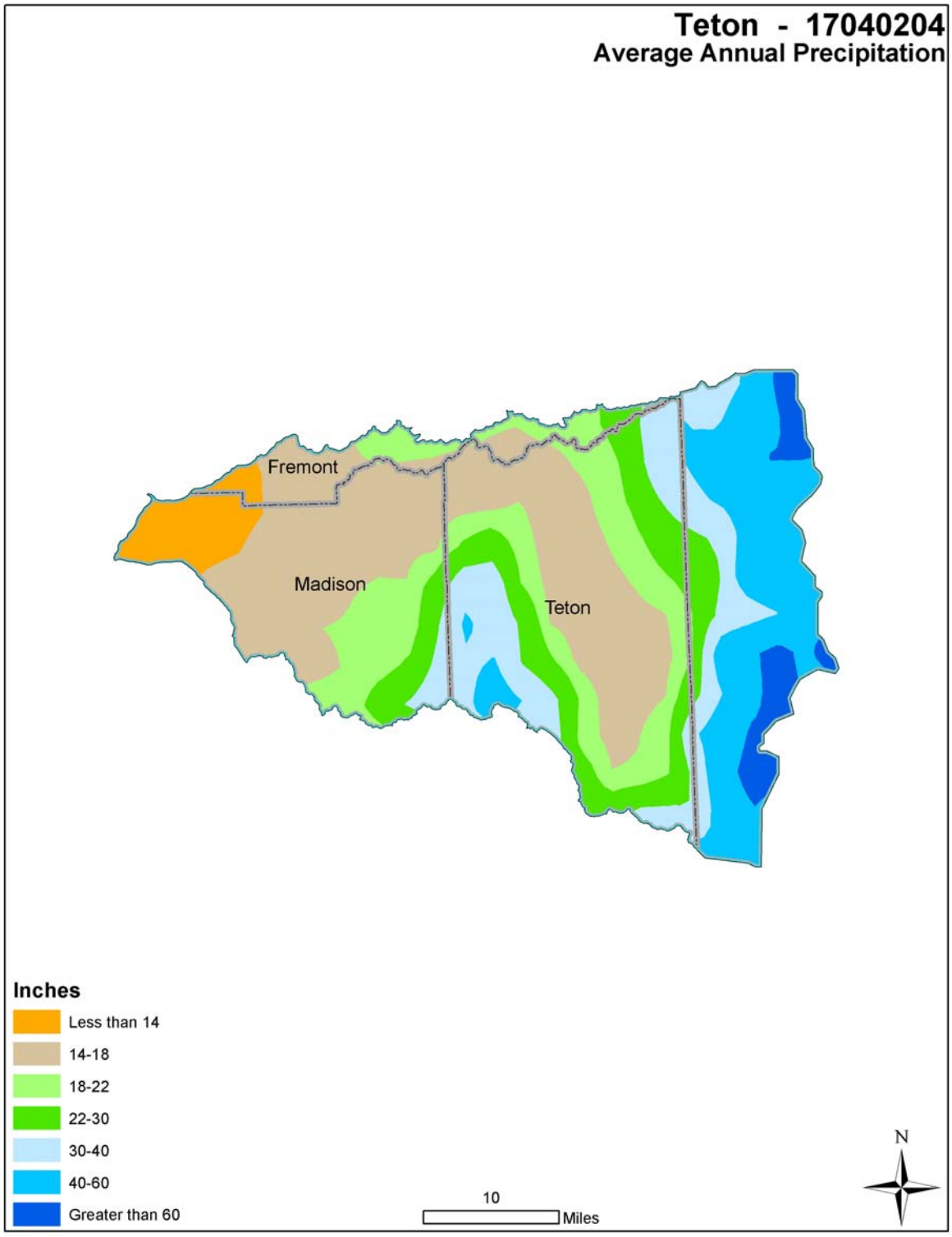
(CRP acres are also included in Cropland/Hayland so are not shown in the totals.)

Any differences between the acres in the above Table and the Future Conservation Needs Tables in the back of this document are due to the differences in Land Cover acres as opposed to Land Use acres. However the Total Private acres do balance between the Land Use and Land Cover acres.

Land Use / Land Cover[/2]

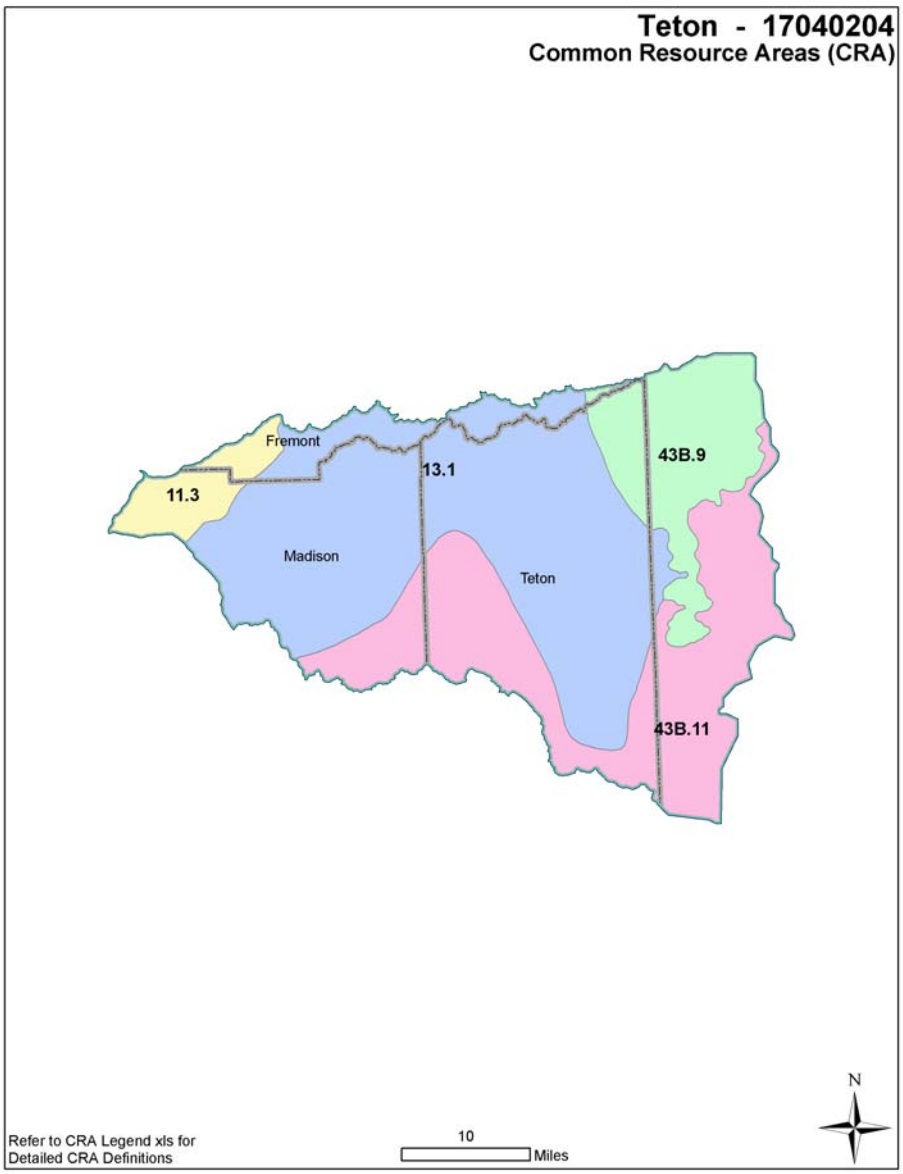


Average Annual Precipitation[/5]



Common Resource Area Map

The Common Resource Areas (CRA) delineated below for the Teton HUC are described in the next section (for additional information, see http://www.id.nrcs.usda.gov/technical/soils/common_res_areas.html). A 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 land use/land cover, 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 MLRA framework.

11.3 Snake River Plains - Upper Snake River Plain: This nearly level unit is characterized by cropland, pastureland, cities, suburbs, and industries. Extensive surface irrigated small grain, sugar beet, potato, and alfalfa farming occurs. Frost-free season is shorter and crop variety is less than downstream CRA units. Aquatic resources have been degraded by irrigation diversions, channelization, dams, sewage treatment, nonpoint pollution, food processing, and phosphate processing.

13.1 Eastern Idaho Plateaus - Dissected Plateaus and Teton Basin: This unit is used for cropland and rangeland. Potatoes are an important cash crop. Sprinkler irrigated land supports potatoes, alfalfa, and pasture. Non-irrigated land supports small grains. Mollisols developed in thick loess deposits or alluvium and are subject to wind erosion. Potential natural vegetation is sagebrush steppe and is unlike the forests of the higher, more rugged mountains. Wet meadows occur in the poorly-drained soils of the Teton Basin.

43B.9 Central Rocky Mountains--Yellowstone Basin: Nearly all this area is used as wildlife habitat, for recreation, and for timber production. Most of this area is high mountains. Mean annual precipitation is 625 to 1,525 mm. Mean annual air temperature is 2 to 7˚C. Average frost-free period is 30 to 60 days. Frost occurs every month of the year on high mountains. It has a coniferous forest-shrubland mosaic. Forests dominated by Douglas-fir, lodgepole pine, and aspen are most common on north-facing slopes and flatter uplands. Recreation is a very important land use but mining, grazing, and logging also occur.

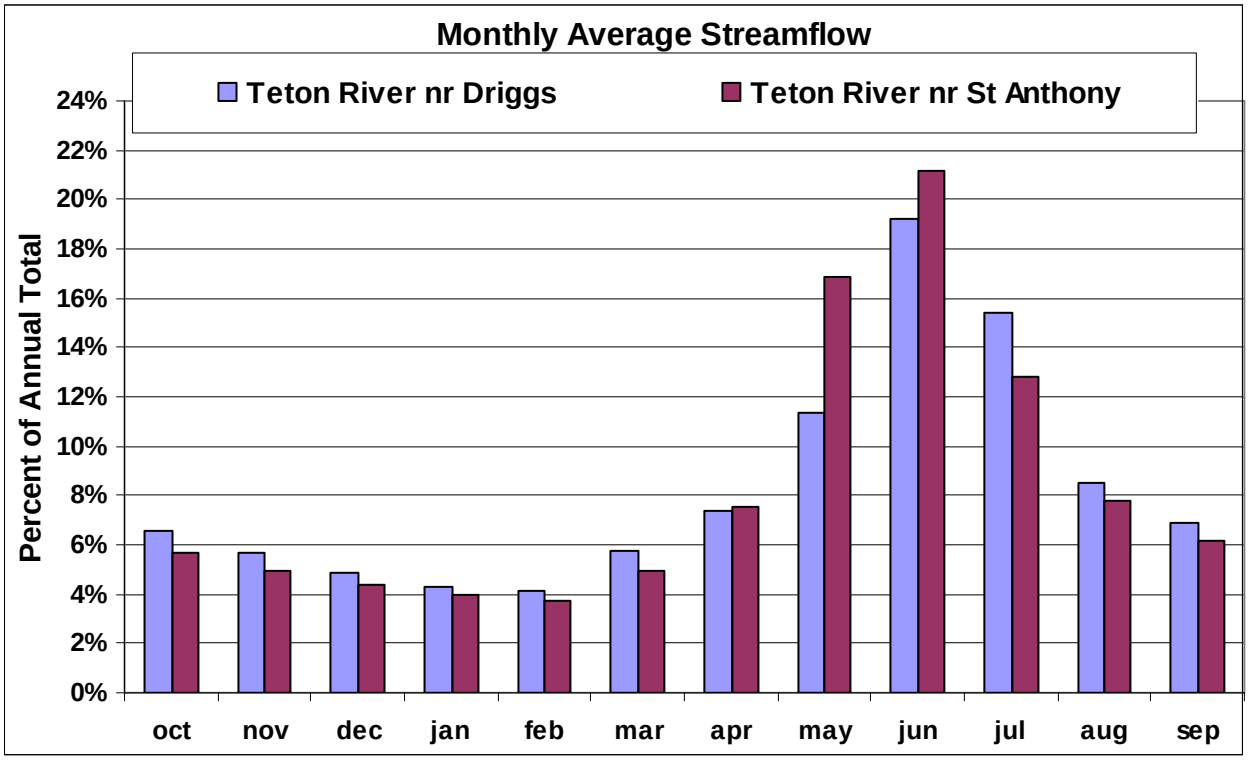
43B.11 Central Rocky Mountains--Partly Forested Mountains: The steep, dry Partly Forested Mountains vary in elevation from about 6,000 to over 9,000 feet. Mean annual precipitation is 500 to 750 mm. Mean annual air temperature is 2 to 7˚C. Average frost-free period is 30 to 60 days. Frost occurs every month of the year on high mountains. Soils have a cryic temperature regime and are rocky and shallow. They support open-canopied forests, shrublands, and grasslands; Douglas-fir, lodgepole pine, and aspen are most common on north-facing slopes and gently sloping uplands while mountain big sagebrush and mountain brush dominate south-facing slopes. Its vegetation is distinct from surrounding ecoregions. It is used as summer range and for timber production.

Streamflow Summary[7]

The Teton River originates in alpine terrain, west of the Teton Mountains, and transitions into high desert before emptying into the Snake River. The changing environment is crucial to sustaining vastly different ecosystems, which supports numerous fish and wildlife species. Recreation, water management, flood control and irrigation (surface and ground water) also depend heavily on the water resources from this important river.

In the headwaters, there are three SNOTEL sites (Pine Creek Pass, Phillips Bench and Grand Targhee) that measure mountain precipitation, snow water content and air temperatures. There are also six snow courses where snow depth and snow water equivalent are measured once per month and several other valley climate stations. These sites are critical in forecasting spring streamflow to balance the needs of the Teton River system.

There are two main USGS streamflow measuring stations on the Teton River: The Teton River above South Leigh Creek near Driggs (upstream point; ID # 1305220) and the Teton River near St. Anthony, Idaho (downstream point; ID # 1305500). The average annual flow at the Teton River near St. Anthony is 594,000 acre-feet and the drainage area is about 890 square miles. The April through July flow accounts for 58% of the total annual volume due to seasonal snowmelt and spring precipitation. In 1966, the USGS determined that 58,000 acres were irrigated above the St. Anthony station and about 4,400 acres is from groundwater. About 42,000 acres are irrigated above the Driggs station with about 1,000 acres irrigated from groundwater pumping. The average annual flow of the Teton River near Driggs is 285,000 acre-feet and the April through July runoff period accounts for 53% of this yearly flow. See the chart below for more information about individual monthly contribution to annual average streamflow.



Irrigated Adjudicated Water Rights[6])		**CFS**	
	Surface Water	1,640	
	Groundwater	5,630	
	Total Irrigated Adjudicated Water Rights	7,270	
Stream Flow Data[7]	USGS #13055000, Teton River near St Anthony, 1891-2006 (115 yrs of data used)		**ACRE-FEET**
		Average Annual	594,344
		April-July Average	346,952
		Percent of Average Annual	58
Stream Data **Percent of Total Miles of streams in HUC*		**MILES**	**PERCENT**
	Total Stream Miles[8]	2,668	--
	Water quality impaired streams[9,10]	335	13
	Anadromous Fish Presence (Streamnet)[11]	0	--
	Bull Trout Presence (Streamnet)[11]	0	--
Land Cover/Use[2] based on a 100 ft. stretch on both sides of all streams in the 100K Hydro Layer		**ACRES**	**PERCENT**
	Forest	22,585	24
	Grain Crops	11,580	12
	Grass/Pasture/Hay Lands	24,715	26
	Row Crops	9,980	11
	Shrub/Rangelands – Includes CRP Lands	16,045	17
	Water/Wetlands/Developed/Barren	8,980	10
	Total Acres of 100 ft stream buffers	**93,885**	100
Land Capability Class[4]	**I** – slight limitations	0	0
	II – moderate limitations	49,800	17
	III – severe limitations	114,200	38
	IV – very severe limitations	113,300	38
	V – no erosion hazard, but other limitations	11,100	4
	VI – severe limitations, unsuited for cultivation, limited to pasture, range, forest	4,000	1
	VII – very severe limitations, unsuited for cultivation, limited to grazing, forest, wildlife	4,800	2
	VIII – misc areas have limitations, limited to recreation, wildlife, and water supply	0	0
	Total Crop & Pasture Lands	**297,200**	100

Confined Animal Feeding Operations – Dairies/Feedlots[12,13, 26]						
	Number	<200	200-500	500-750	750-1000	>1000
Dairy	27	27	0	0	0	0
	Number	<300	300-999	1,000-4,999	5,000-9,000	>10,000
Feedlots	10	7	2	1	0	0

Resource Settings

Non-Irrigated Cropland
Primarily winter wheat/fallow (precipitation 10-14 inches), winter wheat/spring barley/fallow (precipitation 12-16 inches) or annual spring barley (precipitation 16-22 inches) on silt loams with slopes 0-16%. Non-irrigated cropland is often characterized by significant ephemeral gully and concentrated flow erosion as well as sheet and rill erosion. Conventional tillage results in less than 10% residue after planting. Application of nutrients and pesticides typically does not meet Idaho NRCS standards.

Surface Irrigated Cropland
Conventionally tilled, often intensively cultivated border irrigated cropland on 0-1% slopes. Precipitation is 12 inches or less. Soils are typically sandy loams, silt loams, and loams, and may have been extensively land-leveled in the past. Typical rotations small grains and alfalfa, although annual grain is also common. Nutrient, pest, and/or irrigation water management may be less than desirable. Impacted surface and/or ground water quality is common.

Sprinkler Irrigated Cropland
Conventionally tilled cropland on soils ranging from sands to loams. Rotations containing less than 66% high residue crops can lead to wind erosion problems. Wind erosion is typically a problem from March to June, creating air quality and visibility hazards in some portions of the subbasin. Various combinations of small grains, alfalfa, beets, potatoes, and barley are grown. Potatoes with one or two years of spring grain is a typical rotation on slopes ranging from 0-8%. These rotations may have sheet and rill and ephemeral gully erosion problems in the spring following potatoes. Sprinkler-irrigation induced erosion may also be a concern, especially on steeper slopes. Nutrient and pest management may be less than desirable. Irrigation water management and maintenance of sprinkler systems may be less than desirable. Wildlife habitat is often inadequate with limited permanent cover.

Hayland
Conventionally tilled, surface and sprinkler irrigated on 0-7% slopes. Precipitation is 20 inches or less per year with a growing season ranging from 80 to 160 days. Irrigation water is normally plentiful though ground water quantity is a concern in some areas. Small grains and alfalfa are grown in rotation, with alfalfa typically maintained for 4-6 years. Grazing of crop aftermath may occur. Nutrient, pest or irrigation water management may be less than desirable.

Non-irrigated upland hay consists of introduced perennial grasses and legumes. One cutting is common. Renovations occur every 6-10 years. Soils vary from loams to silt loams with slopes ranging from three to 30 percent. Precipitation is 16 inches or greater. Soil testing and fertility management are typically lacking. Grazing of crop aftermath is common.

Resource Settings - continued

Pasture
Some improved non-irrigated land pasture with introduced forage species including wheatgrasses, fescues, bromes, orchardgrass, sanfoin, clover and alfalfa. The older established stands are of low vigor, with encroachment of noxious weeds. Continuous season-long grazing is typical, with below-optimum forage production. No commercial fertilizers are applied, and pest management practices are limited. Livestock water may be inadequate or poorly managed.

Irrigated pastureland includes both low elevation pastures and high elevation mountain valleys. Irrigated pastures are sprinkler or surface irrigated on variable soils with slopes 1-5%. Irrigation water is distributed via earthen ditches, with tailwater eventually returning to rivers or streams. Fields may have been leveled. Surface irrigation efficiency is 20-35%. Plants are introduced forage species and native perennials, conventionally tilled when rotating pasture (10 years) and grain (2 years). Commercial fertilizers and/or animal waste are sometimes applied, but without soil testing or nutrient management. Adjacent riparian areas are important for wildlife.

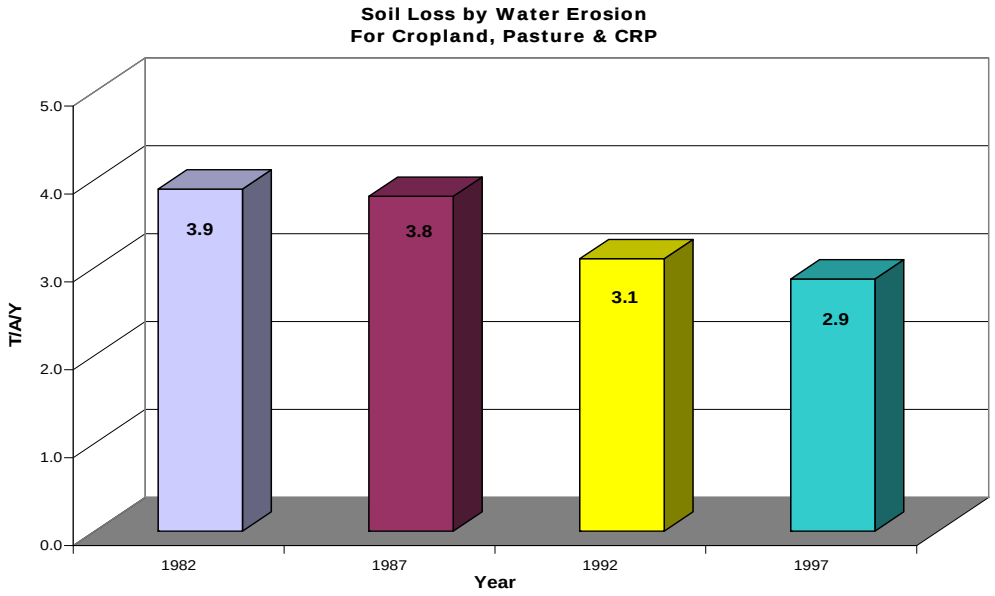
Non-irrigated riparian pastures of native grass, sedge and rush species mixed with introduced timothy, smooth bromegrass, creeping meadow foxtail, orchard grass and clover forage species are typically utilized by livestock from early spring through fall. Wildlife use these areas throughout the year. Annual precipitation is 20 inches or less. Soils are variable in texture on slopes of 0 to 2 percent. Nutrients are occasionally applied.

Rangeland
Mid elevation desert to high elevation, steep rangeland. Mid-elevation rangeland has precipitation ranging from 12-16 inches. This range consists of sagebrush, perennial bunchgrasses and forbs with variable soils on nearly level flats to benches and rolling hills. Frequent fires have eliminated some areas of sagebrush, with annual invaders dominant. Carrying capacity can be limited by available water. High elevation range has precipitation greater than 16 inches, on steep slopes and high mountain valleys. Land is utilized by antelope, deer, elk and livestock in winter and early spring. Areas are important sage grouse habitat.

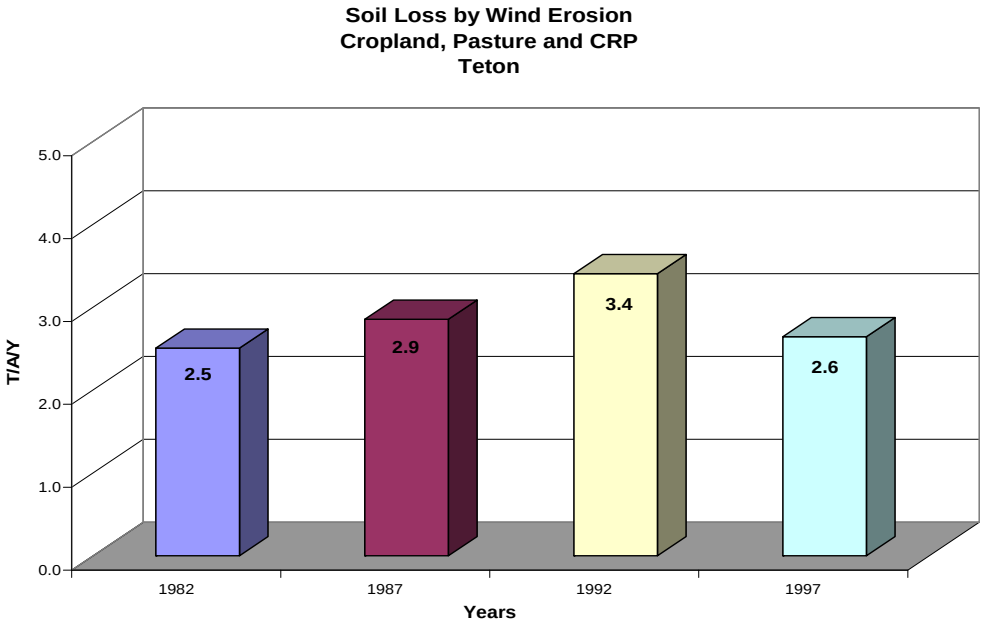
Riparian grazing units typically exhibit impacts to riparian vegetation and a loss of woody species. Riparian vegetation consists of grasses, sedges, rushes and a variety of woody species. These areas are important habitat for a variety of fish and wildlife. Soils vary from gravelly to loamy. Elevation and precipitation vary widely throughout the area. Access to riparian areas on all rangeland types is not typically managed, and temperature, nutrients, and sediment may be an associated water quality concern.

Headquarters
Livestock operations (AFO/CAFO), including winter feeding areas, that may or may not be adjacent to surface waters. Annual precipitation ranges from 8-25 inches and falls primarily from November to March. Soils vary from deep to shallow clays, silts, and sandy loams that are poor to excessively drained. Animal waste is typically applied to cropland or pasture and suitable acreage may be limited. There is a high risk to surface water and/or ground water due to inadequate or incomplete waste management systems and livestock operations and related structures built adjacent to waterways or in floodplains. Livestock often have direct access to waterways resulting in water quality, streambank, and aquatic habitat concerns. Pesticides are often used without a management plan. Odor concerns may affect adjacent landowners.

Resource Concerns



Sheet and rill erosion by water on the sub basin croplands, pasturelands and CRP have decreased since 1982. Water erosion rates have ranged from a high of about 3.9 tons per acre per year in 1982 to about 2.9 tons per acres per year in 1997. A slight decrease in acres of cultivated cropland and slight increase in non-cultivated cropland acres, along with improved erosion control methods probably contributed to the decrease in water erosion over the 15 year period.



Wind erosion rates on the sub basin croplands, pasturelands and CRP have fluctuated from about 2.5 tons per acre per year in 1982 to about 3.4 tons per acre per year in 1992 and then decreased to about 2.6 tons per acre per year in 1997.

Resource Concerns – Continued

Impacted Water Bodies[9,10] (ID17040204)	Stream Miles	Sediment, Siltation or TSS	Nutrients	Bacteria	Temperature	Dissolved Oxygen	Flow / Habitat Alteration[1]	Other or Unknown
Badger Creek (SK058_03, SK057_03)	10.7	x						
Darby Creek (**SK045_02**, SK044_02)	13.4	x					x	x
Calamity Creek (SK010_02)	19.6							x
Dick Creek (SK046_02)	3.6							x
Fish Creek (SK006_02)	2.2	x[2]						
Fox Creek (**SK042_02, SK041_02**)	8.9	x			x		x	
Horseshoe Creek (SK021_03)	4.8							x
Mahogany Creek (**SK025_02**)	7.0	x			x		x	
Moody Creek (SK005_04)	19.6	x[2]	x		x[2]			
NF Moody Creek (SK007_02)	26.4	x[2]		x	x[2]			
NF Teton River (SK002_05)	17.0	x	x					
North Leigh Creek (SK055_02)	5.0	x						x
Packsaddle Creek (**SK018_03, SK019_02**)	19.2	x					x	
South Leigh Creek (SK053_03, SK052_03)	11.5	x						
South Moody Creek (SK006_02)	6.9	x[2]			x[2]			
Spring Creek (**SK054_02, SK056_03,02**)	38.8	x			x		x	
Teton River (SK017_04, **SK014_04, SK015_04**)	19.7	x	x				x	
Teton River (**SK020_04**, **SK026_04**)	20.3	x					x	
Teton River (**SK026_02**)	22.6	x			x			
Teton River (**SK016_04**)	3.3		x				x	
Teton River (SK003_05)	20.8		x					
Teton River (SK004_05, SK012_05)	10.5				x[2]			
Warm Creek (SK011_02,SK034_02)	23.4			x				x
TOTAL STREAM MILES:	**335.2**							

[1] Flow and habitat alteration are not considered pollutants by the Idaho Department of Environmental Quality, and are not addressed by the TMDL- impaired segments in **bold**.

[2] Assessment documented concerns, and recommends listing for the specified pollutant on the next Integrated Report.

Shading indicates TMDL in place.

Sediment is the primary pollutant of concern in the Teton River basin. The upper portion of the watershed has an extensive wetland complex, and the lower reach of the river was extensively altered by the flood following the collapse of the Teton Dam in 1976. This event was a significant source of sediment, as is erosion from cultivated fields, and streambank erosion from grazing, channel alteration, and flood irrigation. Additional sources of sediment include natural mass wasting events, particularly on Teton and Trail Creeks, and poorly maintained roads and culverts associated with timber harvest. Sediment load reductions ranging from 38% to 73% will be required to meet the load allocations for impaired segments.

Resource Concerns – Continued

Additional pollutants of concern include nutrients and temperature. Thermal modification (i.e., temperature) has been attributed to removal of riparian vegetation and loss of shade, apparently due to grazing. Nutrients, particularly nitrogen, have been attributed to animal waste, fertilizer, and leguminous crops such as alfalfa hay. Flow alteration due to irrigation water diversions can have substantial impacts on water quality and aquatic biota, and is a concern. Substantial habitat alteration within the watershed has occurred as well. Additional monitoring by non-profit organizations and the state has shown elevated bacteria in the Teton River and some tributaries, but beneficial uses have not been impaired to date. As development in the watershed increases, reduction in wetlands, altered surface and subsurface hydrology, increased density of septic systems, increased numbers of drinking water wells, and increased road construction and maintenance will likely further impact water quality.

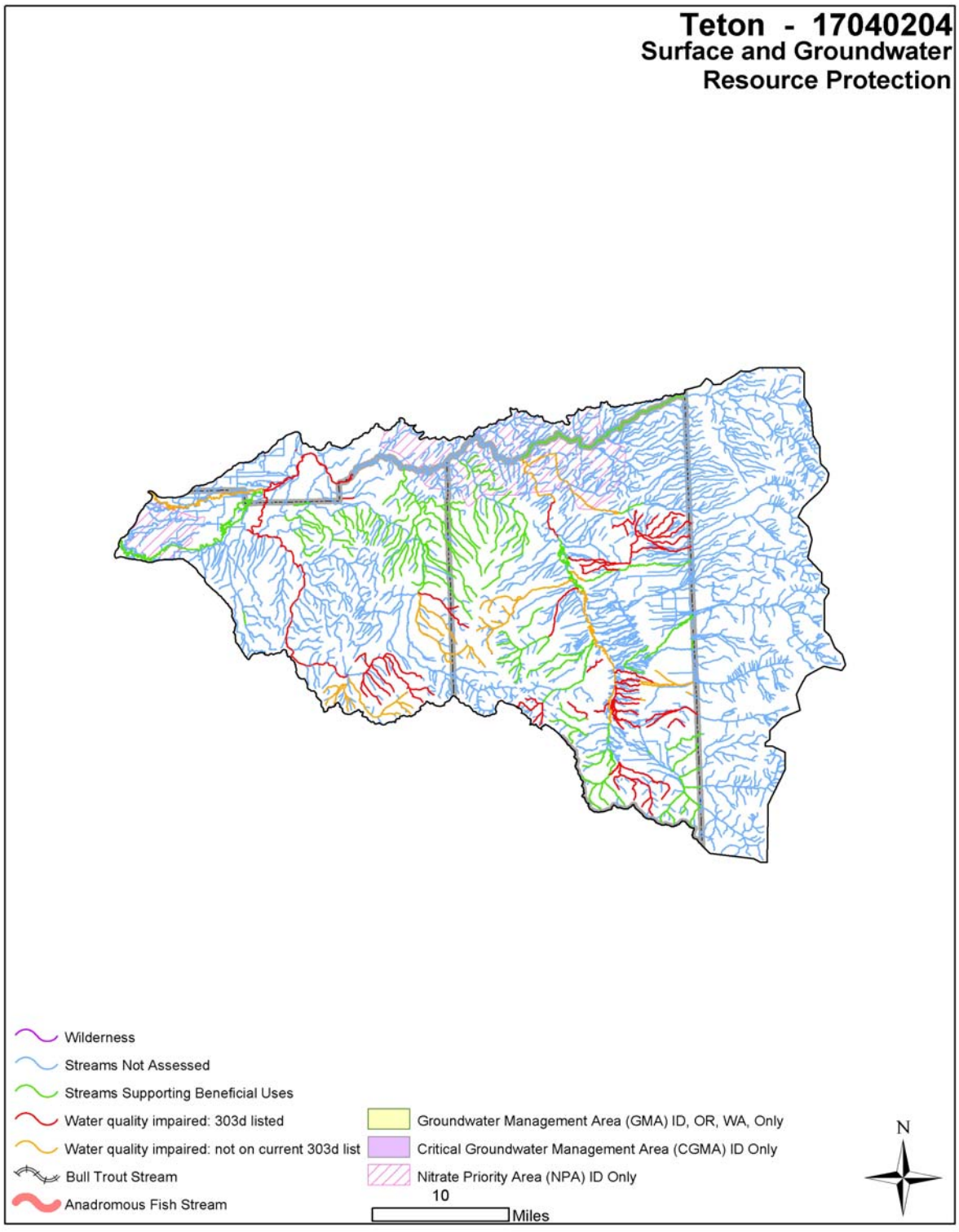
Portions of the Ashton/Drummond/Teton River and the Hibbard nitrate priority areas (ranked 8th and 20th, respectively) are located in the northern and western areas of the watershed. A ground water quality management plan will outline strategies to help reduce nitrate loading to ground water from land use activities in the Ashton/Drummond/Teton River nitrate priority area (scheduled for completion in 2009).

The Madison Soil and Water Conservation District and the Yellowstone and Teton Soil Conservation Districts have actively promoted resource conservation practices within the subbasin. Conservation practices that can be used to address these water quality issues include erosion control, grazing management, irrigation water management, nutrient and pest management, residue management, conservation cover, streambank enhancement/restoration, and riparian buffers.

Watershed Projects, Plans, Studies, and Assessments*	
Federal:	***State:***
NRCS Watershed Plans/Studies/Assessments[14,15]	**IDEQ TMDLs**[16]
Teton River Basin Study (1992)	Teton River TMDL (2003) Teton River Supplement (Moody, Fox and Spring Creeks) (2003)
Teton SAWQP (SCD, 1991)	**IDEQ 319 Projects/**[17]
Trail Creek Project, PL-566 (1966)	Ashton Ground Water Protection Planning (2003) Ashton Ground Water Protection Implementation (2007) Teton Creek (2007)
NWPCC Subbasin Plans and Assessments[18]	**SCC Plans/Projects**[19]
Upper Snake Subbasin Assessment (2004)	Teton TMDL Agricultural Implementation Plan (2004)
Upper Snake Management Plan (2004)	Upper Teton River Subbasin Monitoring Reports (2004 & 2005)
	Moody Creek Water Quality Monitoring Reports (2003-2005)
	ISDA Regional Water Quality Projects[20]
	Central Henrys Fork Basin Regional Groundwater Study (on-going)
	IDWR Comprehensive Basin Plans[21]
	Henrys Fork Basin (1992)

* Listing includes past efforts in the watershed, and on-going studies and assessments.

Surface and Groundwater Resource Protection[22, 23, 24]



Resource Concerns – Continued

SWAPA*	Specific Resource Concerns/Issues	Pasture	Hayland	Non-Irrigated Crops	Surface Irrigated Crops	Sprinkler Irrigated Crops	Rangeland	Headquarters
Soil Erosion	Sheet and rill			X		X		
	Ephemeral or classic gully			X		X		
	Irrigation-induced					X		
	Streambank	X					X	X
Water Quantity	Inefficient use on irrigated lands	X	X		X	X		
	Aquifer overdraft		X			X		
Water Quality, Surface	Suspended sediment	X	X	X		X	X	X
	Nutrients and organics	X	X	X		X	X	X
	Pesticides		X	X		X		
	Pathogens	X						X
	Temperature	X					X	
Water Quality, Ground	Nutrients and organics		X	X	X	X		X
	Pesticides		X	X	X	X		
	Pathogens							X
Soil Condition	Organic matter depletion					X		
	Compaction	X				X		
Plant Condition	Productivity, health and vigor	X	X	X			X	
	Pests			X	X	X		
	Noxious and invasive plants	X			X		X	X
	Establishment and growth	X					X	
	Plants not adapted or suited	X					X	
	Wildfire hazard						X	
Domestic Animals	Inadequate feed or water	X					X	
	Stress and mortality							X
Fish and Wildlife	Inadequate water						X	
	Inadequate cover/shelter	X				X	X	
	Declining species/species of concern	X				X	X	
	Habitat fragmentation						X	
Air Quality	Odor							X
	Reduced Visibility					X		

*** SWAPA: - Soil, Water, Air, Plants and Animals**

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.

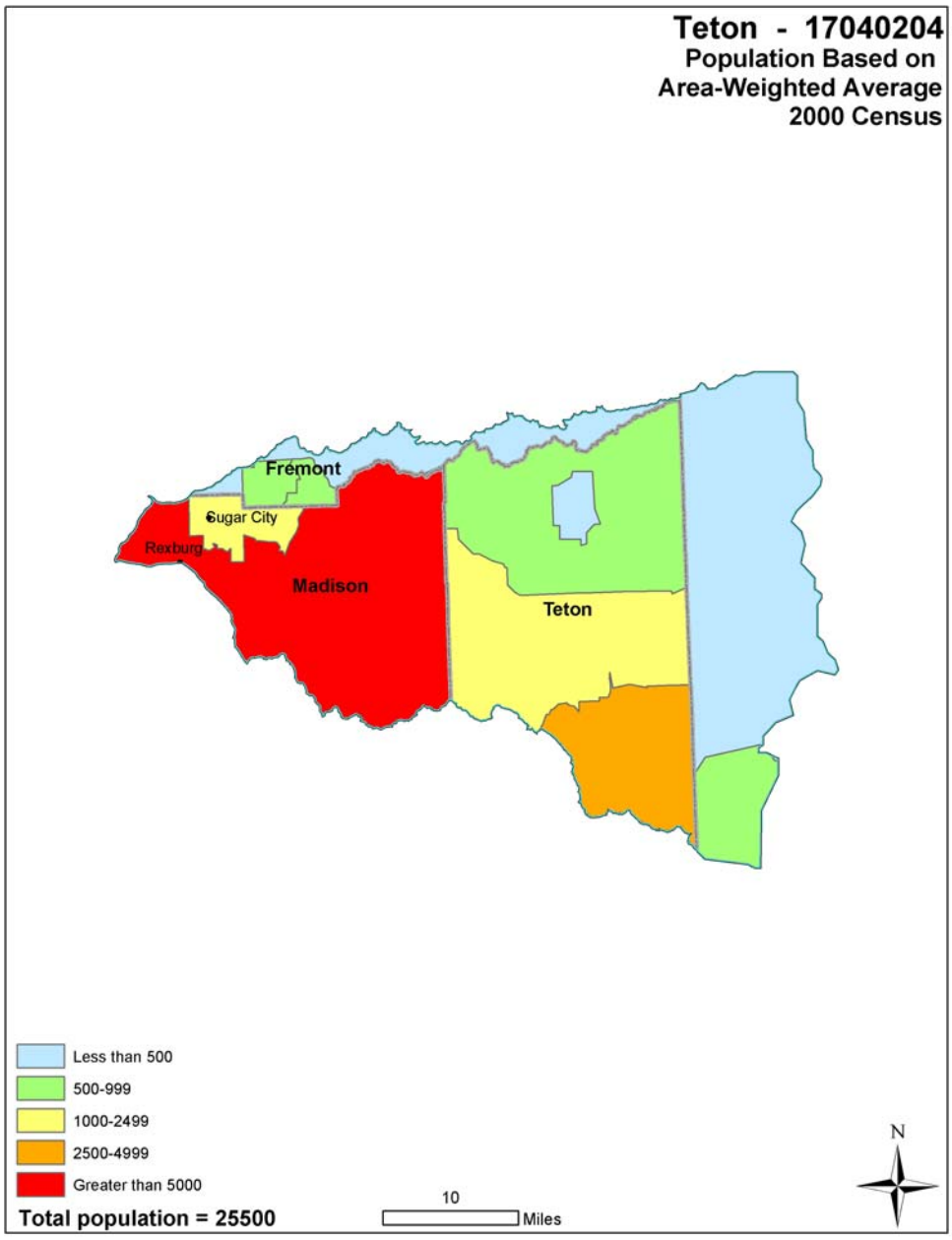
Resource Concerns – Continued

FEDERALLY LISTED THREATENED AND ENDANGERED SPECIES[25]	
Threatened and Endangered Species	**Candidate Species**
Mammals – Gray Wolf, Grizzly Bear, Lynx **Birds –** None **Fish –** None **Invertebrates – None** **Plants –** None	**Plants** – None **PROPOSED SPECIES** - None
ESSENTIAL FISH HABITAT – NA	**CRITICAL FISH HABITAT –** NA

Census and Social Data[126]

Population: 25,500

Number of Farms: 607



Census and Social Data - continued

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.

Census and Social data shown below are based on county-wide statistics and records and may not accurately reflect the actual watershed-specific portion of the counties.

Fifty-eight 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; women make up 6.8 percent of the total. Ninety-nine 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 630 acres. Agricultural land in the watershed is a mix of cropland, range, pasture and hay land. Land users in the watershed utilize EQIP, CRP, Continuous CRP and other programs to implement conservation plans.

For the period of 1997 through 2002, the number of farms in the watershed has decreased by 4.7 percent. Farm size is up 5.0 percent. The market value of production is also up, rising 13.5 percent. Government payments to farmers have increased by 42.9 percent. 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.

	Number of farms	Average size farm	Market Value of Production (Average Farm)	Government Payments (Average Farm)
1997	637	600	$114,500	$9,100
2002	607	630	$129,900	$13,000
Change	- 4.7%	5.0%	13.5%	42.9%

Economic Profile:

	Watershed	Idaho	United States
Population	25,500	1,466,000	299,398,000
Per Capita Personal Income (2005)	$20,800	$28,500	$34,500
Median Home Value (2000)	$116,700	$106,600	$119,600
Percent Unemployment (2006)	2.6%	3.4%	4.6%
Percent Below Poverty Level (2004)	11.9%	11.5%	12.7%

Progress / Status

The following tables include conservation activities that have been cost-shared under federal and state funded programs and applied and reported in agency databases or reporting systems (PRS Data). Individual conservation efforts applied without cost-share assistance are not reflected. The Future Needs Tables included at the end of this report are based on the conservation activities shown here as well as estimates of percentage of each land use that already meets Resource Quality Criteria as defined in the USDA NRCS electronic Field Office Technical Guide.

Conservation Treatment Activity	FY04	FY05	FY06	FY07	FY08	Avg/Yr	Total
Animal Trails and Walkways (575) ft	3	0	0	0	0	0.6	3
Channel Bank Vegetation (322) ac	1	0	0	2	0	0.6	3
Channel Stabilization (584) ft	2,498	125	1,622	0	420	933	4665
CNMP (100) no	0	1	2	0	0	0.6	3
Conservation Cover (327) ac	1,431	985	1,580	1,313	0	1,062	5,309
Conservation Crop Rotation (328) ac	0	0	2,730	700	20	690	3,450
Critical Area Planting (342) ac	0	2	0	0	0	0.4	2
Deep Tillage (324) ac	153	385	1,243	133	0	383	1,914
Dike (356) ft	364	0	0	0	0	73	364
Fence (382) ft	21,477	8,088	4,974	12,248	17,475	12,852	64,262
Forage Harvest Mgmt (511) ac	0	0	221	0	86	61	307
Irrigation Land Leveling (464) ac	0	0	43	0	0	9	43
Irrigation System, micro (441) ac	2	0	11	0	0	3	13
Irrigation System, sprinkler (442) ac	29	473	1,336	487	0	465	2,325
Irrigation Water Conveyance, Pipeline, High Pressure, Underground Plastic (430DD) ft	0	18,934	1,830	42,033	2,485	13,056	65,282
Irrigation Water Management (449) ac	3	1,925	961	1,126	156	834	4,171
Nutrient Management (590) ac	0	684	3,338	2,873	0	1,379	6,895
Pasture Planting (512) ac	38	99	0	17	0	31	154
Pest Management (595) ac	1,082	1,447	2,037	5,583	115	2,053	10,264
Pipeline (516) ft	13,233	0	1,860	4,700	2,732	4,505	22,525
Pond (378) n0	1	0	2	3	0	1	6
Prescribed Grazing (528) ac	0	179	265	0	138	116	582
Pumping Plant (533) no	0	1	2	11	3	3	17
Residue Management, mulch till (329B) ac	0	866	1,097	2,966	20	990	4,949
Residue Management, No-till (329A) ac	0	443	1,735	878	0	611	3,056
Riparian Forest Buffer (391) ac	2	0	0	1	0	0.6	3
Stream Habitat Improvement & Management (395) ac	0	0	0	8	17	5	25
Streambank and Shoreline Protection (580) ft	0	0	960	1,794	3,190	1,189	5,944
Structure for Water Control (587) no	0	4	4	10	0	4	18
Surface Roughening (609) ac	361	2,935	2,156	1,365	1,000	1,563	7,817
Terrace (600) ft	0	950	0	0	0	190	950

Progress/Status, continued

Conservation Treatment Activity	FY04	FY05	FY06	FY07	FY08	Avg/Yr	Total
Upland Wildlife Habitat (645) ac	1,082	1,206	2,310	1,639	87	1,265	6,324
Use Exclusion (472) ac	539	1,664	1,064	6,215	109	1,91	9,591
Waste Storage Facility (313) no	2	1	0	0	0	0.6	3
Water and Sediment Control Basin (638) no	0	74	76	133	46	66	329
Water Well (642) no	0	0	0	0	2	0.4	2
Watering Facility (614) no	5	0	4	3	0	2	12
Wetland Creation (658) ac	0	10	0	1	0	2	11
Wetland Enhancement (659) ac	0	90	25	7	0	24	122
Wetland Restoration (657) ac	33	0	0	0	0	7	33
Wetland Wildlife Management (644) ac	0	326	468	6	0	160	800
Windbreak/Shelterbelt Establishment (380) ft	7,827	0	8,812	0	0	3,328	16,639

Progress in the last three years has been focused on:
~ stream channel stability
~ riparian management
~ irrigation water management
~ nutrient management
~ pest management

Resource concerns that require ongoing attention:
~ grazing management
~ soil erosion
~ wildlife habitat
~ water quality & water quantity
~ irrigation water management
~ nutrient management
~ pest management

Lands Removed from Production through Farm Bill Programs

- Conservation Reserve Program (CRP): **26,337 acres**
- Wetland Reserve Program (WRP): **46 acres**

In addition to the activities in the table above, a significant amount of agricultural land in the Teton watershed has been placed in conservation easements. Through 2007, a total of 9,463 acres are included in 62 easements in the upper Teton River area in Teton County, Idaho. 989 acres are protected through easements in the Farm and Ranch Protection Program, and the remaining 8,474 acres through the non-profit Teton Regional Land Trust.

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 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://water.usgs.gov/osw/streamstats/idaho.html).
8. National Hydrography 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.
10. IDEQ. 2004. Teton Subbasin Assessment and TMDL. http://www.deq.idaho.gov/water/data_reports/surface_water/tmdls/teton_river/teton_river.cfm

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.idaho.gov/gisdata/gis_data.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

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

17. Idaho Department of Environmental Quality, Watershed protection: Nonpoint source management (319 grant), Reports and program resources. http://www.deq.idaho.gov/water/data_reports/surface_water/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/

19. Idaho Soil Conservation Commission (SCC), TMDL watershed implementation plans: agricultural component, http://www.scc.state.id.us/waq.htm, and Water Quality Program, http://www.scc.state.id.us/Docs/WQPA%20FACT%20SHEET.doc

20. Idaho State Department of Agriculture (ISDA). Groundwater water quality regional projects. http://www.agri.state.id.us/Categories/Environment/water/gwReports.php

21. Idaho Department of Water Resources (IDWR). State Comprehensive Water Plans. http://www.idwr.idaho.gov/waterboard/planning/Comp_Basin_Plans.htm

22. IDEQ. 2002 Integrated Report (approved December 2005). http://www.deq.idaho.gov/water/data_reports/surface_water/monitoring/integrated_report.cfm.

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

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. http://www.agcensus.usda.gov/Publications/2002/Census_by_State/Idaho/index.asp

Conservation Activities and Future Conservation Needs

The following Future Conditions Tables are estimates of the future needs of conservation practices in the watershed. The Tables are based on the already applied conservation activities as well as estimates of percentage of each land use that already meets Resource Quality Criteria as defined in the USDA NRCS electronic Field Office Technical Guide.

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

1. Estimates of total additional conservation needs to reach “Resource Management System” level of treatment based on benchmark conditions in the watershed

2. Local knowledge of the area, past and ongoing project activities and professional judgment

3. 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.

4. Urban development of land that was open space as farmland or rangeland presents its own type of resource problems that will require treatment as well as reduce the projected needs for traditional conservation associated with existing cropland and rangeland that is converted to urban use.

Conservation Activities for Dry Cropland / Hayland

Current Conditions	Total acres
Total Non-Irrigated Cropland	7,500
Typical Management Unit/Ownership	900
Current Farm Bill participation	50%

Future Conditions	Total Acres
Non-Irrigated Cropland Acres	7,500
Total Acres	7,500

Conservation Activities for Dry Cropland / Hayland – Continued

Projected Future Level of Treatment for Non-Irrigated 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
Non-Irrigated Cropland	Ac.				+3	+1	+2	+3				
Conservation Cover (327)	Ac.	600	$ -	$ -					X		X	X
Contour Farming (330)	Ac.	2,250	16,900	5,600					X			X
Deep Tillage (324)	Ac.	750	33,800	11,300					X			X
Forage Harvest Management (511)	Ac.	380	-	-					X			X
Nutrient Management (590)	Ac.	6,750	101,300	33,800					X			X
Pasture & Hayland Planting (512)	Ac.	600	96,000	1,000					X		X	X
Pest Management (595)	Ac.	5,250	126,000	42,000					X			X
Prescribed Grazing (528)	Ac.	380	5,700	1,900					X		X	X
Residue and Tillage Management Mulch Till (345)	Ac.	1,125	50,600	16,900					X			X
Residue and Tillage Management No Till / Strip Till / Direct Seed (329)	Ac.	5,480	493,200	164,400					X			X
Terrace (600)	Ft.	2,380	34,700	300					X			X
Upland Wildlife Habitat Management (645)	Ac.	1,500	45,000	15,000					X	X	X	X
Use Exclusion (472)	Ac.	150	5,300	200					X	X	X	X
Water and Sediment Control Basin (638)	No.	3	3,200	100					X			X
Total RMS Additional Costs			$ 1,011,700	$ 292,500								

Conservation Activities for Dry Cropland / Hayland – Continued

Potential RMS Effects Summary for Non-Irrigated Cropland		
Cost Items and Programs	Costs	O&M Costs
Non Farm Bill Programs	$ 50,600	$ 14,600
Potential Farm Bill Programs	$ 961,100	$ 277,900
Operator O&M and Management Cost		$ 292,500
Annual Management Incentives (3 yrs - Incentive Payments)	$ 872,500	
Operator Investment	$ 94,900	
Federal Costshare	$ 44,300	
Total RMS Additional Costs	$ 1,011,700	$ 292,500
Estimated Level of Participation		50%
Total Acres in RMS System		6,200
Anticipated Cost at Estimated Level of Participation	$	505,900
Participating landowners will be in compliance with TMDLs		
Improves habitat for ESA endangered & threatened species		

Conservation Activities for Irrigated Cropland / Hayland

Current Conditions	Total acres
Total Irrigated Cropland/Hayland	180,900
Typical Management Unit/Ownership	600
Surface Irrigated Cropland/Hayland	50,650
Sprinkler Irrigated Cropland/Hayland	130,250
Riparian Potential	8,150
Current Farm Bill participation	15%

Future Conditions	Total Acres
Surface Irrigated Cropland/Hayland	39,800
Sprinkler Irrigated Cropland/Hayland	141,100
Total Irrigated Cropland/Hayland Acres	180,900

Conservation Activities for Irrigated Cropland / Hayland – Continued

Projected Additional Treatment Needs for Irrigated Cropland/Hayland:

Irrigated Cropland/Hayland	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
Surface Irrigation	Ac.				+1	+1	+3	+1				
Forage Harvest Management (511)	Ac.	2,430	$ -	$ -					X			X
Irrigation Land Leveling (464)	Ac.	2,530	556,600	16,700					X			X
Irrigation System, Sprinkler (442)	Ac.	5,060	2,783,000	55,700					X			X
Irrigation System, Surface (443)	Ac.	10,130	1,519,500	45,600					X			X
Irrigation Water Mgmt (449) Low Level	Ac.	45,590	683,900	228,000					X			X
Nutrient Management (590)	Ac.	43,050	645,800	215,300					X	X		X
Pasture and Hayland Planting (512)	Ac.	960	153,600	1,500					X	X		X
Pest Management (595)	Ac.	45,590	1,094,200	364,700					X			X
Residue Management Mulch Till (345)	Ac.	7,600	342,000	114,000					X			X
Upland Wildlife Habitat Management (645)	Ac.	12,660	379,800	126,600					X	X	X	X

Conservation Activities for Irrigated Cropland / Hayland – Continued

Projected Additional Treatment Needs for Irrigated Cropland/Hayland (continued):

Irrigated Cropland/Hayland	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
Sprinkler Irrigation	Ac.				+3	+2	+2	+3				
Conservation Crop Rotation (328)	Ac.	16,930	$ -	$ -					X			X
Contour Farming (330)	Ac.	32,560	244,200	81,400					X			X
Deep Tillage (324)	Ac.	16,930	761,900	254,000					X			X
Forage Harvest Management (511)	Ac.	6,600	-	-					X			X
Irrigation Water Mgmt (449) Low Level	Ac.	84,660	1,269,900	423,300					X			X
Nutrient Management (590)	Ac.	104,200	1,563,000	521,000					X			X
Pasture and Hayland Planting (512))	Ac.	3,300	528,000	5,300					X	X		X
Pest Management (595)	Ac.	97,690	2,344,600	781,500					X			X
Prescribed Grazing (528)	Ac.	13,030	195,500	65,200					X			X
Residue Mngt, Mulch Till (345)	Ac.	42,980	1,934,100	644,700					X			X
Surface Roughening (609)	Ac.	29,960	674,100	224,700					X			X
Upland Wildlife Habitat Management (645)	Ac.	104,200	3,126,000	1,042,000					X	X		X
Use Exclusion (472)	Ac.	2,600	88,400	2,700					X			X
Total RMS Additional Costs			$ 20,888,100	$5,213,900								

Conservation Activities for Irrigated Cropland / Hayland – Continued

Potential RMS Effects Summary for Irrigated Cropland/Hayland		
Cost Items and Programs	Costs	O&M Costs
Non Farm Bill Programs	$ 1,044,400	$ 260,700
Potential Farm Bill Programs	$ 19,843,700	$4,953,200
Operator O&M and Management Cost		$5,213,900
Annual Management Incentives (3 yrs - Incentive Payments)	$ 16,353,200	
Operator Investment	$ 2,789,700	
Federal Costshare	$ 1,745,200	
Total RMS Additional Costs	$ 20,888,100	$ 5,213,900
Estimated Level of Participation		25%
Total Acres in RMS System		75,100
Anticipated Cost at Estimated Level of Participation	$	5,222,000
Total Acre Feet of Water Saved Annually		39,945
Increases infiltration and storage of water in soil profile		
Participating landowners will be in compliance with TMDLs		
Improves habitat for ESA endangered & threatened species		
Reduces impact to ground and surface water quality		

Conservation Activities for Irrigated Pasture

Current Conditions	Total Acres	Riparian/ Wetland Potential
Surface Irrigated Pasture	6,440	290
Sprinkler Irrigated Pasture	2,760	130
Total Irrigated Pasture	9,200	420
Typical Management Unit/Ownership	350	
Current Farm Bill participation	20%	

Future Conditions	Total Acres
Surface Irrigated Pasture	3,850
Sprinkler Irrigated Pasture	4,930
Total Conversion to Riparian Pasture RMS	420
Total Acres	9,200

Conservation Activities for Irrigated Pasture – Continued

Project Additional Treatment Needs for Irrigated Pasture:												
	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
Surface Irrigation	Ac.				+/-	+/-	+1	+1				
Fence (382)	Ft.	101,480	$ 220,200	$ 4,400					X			X
Heavy Use Area Protection (561)	Ac.	5	145,000	7,300					X			X
Irrigation Field Ditch (388)	Ft.	4,800	14,400	300					X			X
Irrigation System Surface (443)	Ac.	1,410	211,500	6,300					X	X	X	X
Irrigation System Sprinkler (442)	Ac.	2,460	1,353,000	27,100								
Irrigation Water Management (449)	Ac.	5,840	87,600	29,200					X			X
Nutrient Management (590)	Ac.	4,180	62,700	20,900					X			X
Pasture & Hayland Planting (512)	Ac.	1,840	294,400	2,900					X	X		X
Pest Management (595)	Ac.	4,000	96,000	32,000					X			X
Prescribed Grazing (528)	Ac.	5,540	83,100	27,700					X			X
Structure for Water Control (587)	No.	120	152,400	1,500					X			X
Upland Wildlife Management (645)	Ac.	310	9,300	3,100					X	X		X

Conservation Activities for Irrigated Pasture – Continued

Projected Additional Treatment Needs for Irrigated Pasture (continued):

	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
Sprinkler Irrigated	Ac.				+3	+3	+2	+3				
Fence (382)	Ft.	43,400	$ 94,200	$ 1,900					X			X
Irrigation System Sprinkler (442)	No.	210	115,500	2,300					X			X
Irrigation Water Management (449)	Ac.	2,100	31,500	10,500					X			X
Nutrient Management (590)	Ac.	1,320	19,800	6,600					X			X
Pasture & Hayland Planting (512)	Ac.	660	105,600	1,100					X	X		X
Pest Management (595)	Ac.	1,050	25,200	8,400					X			X
Pipeline (516)	Ft.	8,680	23,400	500					X			X
Prescribed Grazing (528)	Ac.	2,370	35,600	11,900					X			X
Pumping Plant (533)	No.	4	50,000	500					X			X
Spring Development (574)	No.	2	4,800	-					X			X
Structure For Water Control (587)	No.	2	2,500	-					X			X
Upland Wildlife Management (645)	Ac.	130	3,900	1,300					X	X		X
Water Well ((642)	No.	7	47,300	500					X			X
Watering Facility (614)	No.	11	9,600	100					X			X

Conservation Activities for Irrigated Pasture – Continued

Projected Additional Treatment Needs for Irrigated Pasture (Continued):												
	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 Pastures	Ac.				+1	+1	+3	+3				
Conservation Cover (327)	Ac.	40	$ 5,200	$ 200					X		X	X
Fence (382)	Ft.	6,930	15,000	300					X	X	X	X
Heavy Use Area Protection (561)	Ac.	1	29,000	1,500					X			X
Pest Management (595)	Ac.	130	3,100	1,000					X			X
Pipeline (516)	Ft.	400	1,200	-					X			X
Prescribed Grazing (528)	Ac.	190	2,900	1,000					X			X
Restoration/Mgmt Declining Species (643)	Ac.	80	12,000	100					X	X	X	X
Riparian Forest Buffer (391)	Ac.	70	105,000	1,100					X			X
Riparian Herbaceous Cover (390)	Ac.	10	3,000	-					X	X	X	X
Stream Habitat Improvement (395)	Ft.	170	900	-					X	X		X
Streambank & Shoreline Prot (580)	Ft.	1,000	47,500	2,400					X			X
Tree/Shrub Establishment (612)	Ac.	40	18,800	200					X	X		X
Upland Wildlife Management (645)	Ac.	40	1,200	400					X	X		X
Use Exclusion (472)	Ac.	210	7,100	200					X	X	X	X
Watering Facility (614)	No.	1	900	-					X		X	X
Wetland Enhancement (659)	Ac.	20	5,600	100					X	X		X
Wetland Wildlife Management (644)	Ac.	20	600	200					X	X	X	X
Total RMS Additional Costs			$ 3,557,500	$ 217,000								

Conservation Activities for Irrigated Pasture – Continued

RMS Cost Summary for Irrigated Pasture:

Cost Items and Programs	Costs	O&M Costs
Non Farm Bill Programs (5 percent of total)	$ 177,900	$ 10,900
Potential Farm Bill Programs 95 percent of total	$ 3,379,600	$ 206,100
Operator O&M and Management Cost		$ 217,000
Annual Management Incentives (3 yrs - Incentive Payments)	$ 476,900	
Operator Investment	$ 1,339,000	
Federal Costshare	$ 1,741,600	
Total RMS Additional Costs	$ 3,557,500	
Estimated Level of Participation		30%
Total Acres in RMS System		2,400
Anticipated Cost at Estimated Level of Participation	$	1,067,300
Total Acre Feet of Water Saved Annually		2,670
Total Annual Forage Production Benefits (animal unit months)		17,900
Improves ground water and surface water quality by minimizing off-site transport		
Improves riparian habitat for ESA endangered & threatened species		

Conservation Activities for Grazed Rangeland, Dry Pasture and Forestland

Current Conditions		Riparian/Wetland/Potential	Total Acres
Private Range, N-I Pasture & Forest		7,910	167,800
Typical Range Management Unit			2,000
Current Farm Bill participation			5%

Future Conditions	Rangeland/Pasture	Riparian	Total Acres
	159,890	7,910	167,800

Conservation Activities for Grazed Rangeland, Dry Pasture and Forestland - Continued

Projected Additional Treatment Needs for Rangeland, Non-Irrigated Pasture and Forestland:

	Quantity		Costs		Effects				Implementation				
Practices	Unit	Quantity	Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	WRP	CREP	Other
Rangeland, Non-Irr Pasture, Forest	Ac.				+3	+2	+3	+3					
Brush Management (314)	Ac.	8,000	$ 400,000	$ 4,000					X				X
Fence (382)	Ft.	329,790	715,600	14,300					X				X
Pasture and Hayland Planting (512)	Ac.	4,800	768,000	7,700					X				X
Pest Management (595)	Ac.	92,750	2,226,000	742,000					X				X
Pipeline (516)	Ft.	329,790	966,300	4,800					X				X
Prescribed Grazing (528)	Ac.	132,720	796,300	265,400					X				X
Pumping Plant (533)	No.	42	121,000	1,200					X				X
Spring Development (574)	No.	16	38,400	200					X	X			X
Upland Wildlife Management (645)	Ac.	60,760	1,822,800	607,600					X	X			X
Use Exclusion (472)	Ac.	12,790	434,900	13,000					X	X			X
Watering Facility (614)	No.	82	71,300	700					X	X			X
Water Well (642)	No.	98	661,500	6,600					X				X

Conservation Activities for Grazed Rangeland, Dry Pasture and Forestland - Continued

Projected Additional Treatment Needs for Rangeland, Non-Irrigated Pasture and Forestland (continued):

	Quantity		Costs		Effects				Implementation				
Practices	Unit	Quantity	Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	WRP	CREP	Other
Range, N-I Pasture & Forest Riparian	Ac.				+3	+2	+3	+3					
Fence (382)	Ft.	130,350	$ 282,900	$ 5,700					X	X	X		X
Heavy Use Area Protection (561)	Ac.	12	34,800	1,700					X				X
Pest Management (595)	Ac.	3,950	94,800	31,600					X				X
Pipeline (516)	Ft.	16,290	47,700	200					X				X
Prescribed Grazing (528)	Ac.	5,140	30,800	10,300					X				X
Pumping Plant (533)	No.	6	17,300	200					X				X
Riparian Forest Buffer (391)	Ac.	240	360,000	3,600					X				X
Riparian Herbaceous Cover (390)	Ac.	80	24,000	200					X	X	X		X
Stream Crossing (578)	No.	12	42,000	2,100									
Streambank & Shoreline Prot (580)	Ft.	12,540	595,700	29,800					X	X			X
Tree/Shrub Establishment (612)	Ac.	240	112,800	1,100					X	X			X
Upland Wildlife Management (645)	Ac.	2,770	83,100	27,700					X	X			X
Use Exclusion (472)	Ac.	3,950	134,300	4,000					X	X	X		X
Watering Facility (614)	No.	12	10,400	100									
Water Well (642)	No.	6	40,500	400					X				X
Total RMS Additional Costs			$10,933,200	$1,786,200									

Conservation Activities for Grazed Rangeland, Dry Pasture and Forestland - Continued

RMS Cost Summary for Range, Non-Irrigated Pasture & Forestland:

Cost Items and Programs	Costs	O&M Costs
Non Farm Bill Programs (5 percent of total)	$ 546,700	$ 89,300
Potential Farm Bill Programs 95 percent of total	$10,386,500	$1,696,900
Operator O&M and Management Cost		$1,786,200
Annual Management Incentives (3 yrs - Incentive Payments)	$ 5,053,800	
Operator Investment	$ 2,679,800	
Federal Costshare	$ 3,199,600	
Total RMS Additional Costs	$10,933,200	
Estimated Level of Participation		50%
Total Acres in RMS System		104,900
Anticipated Cost at Estimated Level of Participation	$	5,466,600
Total Annual Forage Production Benefits (acre unit months)		10,300
Improves infiltration and storage of water in soil profile		
Improves upland wildlife habitat for deer, elk, antelope and other species		
Improves water quality by reducing erosion and sediment delivery to streams		

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 of Dairy or 300 to 1,000 Head Feeder Cattle) are variable in complexity depending on size, number of cows and location of the waste storage facility. Note that an AFO can be designated as a CAFO regardless of number of animals if it is found to be a significant polluter.

Kinds and amounts of component practices required for proper operation of a Waste Management Facility (313) are site specific, but typically include the following: Anaerobic Digester (366), Composting Facility (317), Access Road (560), Corral Dust Management (785), 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), Pumping 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/Shelterbelt 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		Total
CAFOs		1
AFOs		36
Current Farm Bill participation		10
Total CAFOs and AFOs		37

Conservation Activities for Headquarters – Continued

Numbers of Dairies and Feedlots needing treatment were estimated based on input from Idaho Department of Agriculture and the local NRCS Field Offices.

Projected Additional Treatment Needs for Headquarters													
	Quantity		Costs		Effects				Implementation				
Practices	Unit	Quantity	Additional Investment Cost	Annual O&M and Mngt. Cost	Water Conservation	Water Storage	Habitat	WQ	EQIP	WHIP	WRP	CREP	Other
Dairy	No.				+3	+2	+3	+3					
Structural/Management Practices													
Waste Storage Facility (313) AFO	No.	-	-	-									
Feed Lot	No.				+3	+1	+3	+3					
Structural/Management Practices													
Waste Storage Facility (313) AFO	No.	7	315,000	6,300					X				X
Total RMS Additional Costs			315,000	6,300									

Conservation Activities for Headquarters - Continued

RMS Cost Summary for Headquarters		
Cost Items and Programs	Costs	O&M Costs
Non Farm Bill Programs	$ 15,800	$ 300
Potential Farm Bill Programs	$ 299,200	$ 6,000
Operator O&M and Management Cost		$ 6,300
Annual Management Incentives (3 yrs - Incentive Payments)	$ 31,500	
Operator Investment	$ 149,700	
Federal Costshare	$ 133,800	
Total RMS Additional Costs	$ 315,000	
Estimated Level of Participation		14%
Total CAFO/AFO in RMS System		31
Anticipated Cost at Estimated Level of Participation	$	44,100
Reduces impact to ground and surface water quality		