United States Department of Agriculture

Natural Resources Conservation Service

Lakewood, Colorado

RWA 14050007

July 2010

Lower White Watershed

Hydrologic Unit Code 14050007

Rapid Assessment

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Introduction

Background Information

The Natural Resources Conservation Service (NRCS) is encouraging the development of rapid watershed assessments in order to increase the speed and efficiency generating information to guide conservation implementation, as well as the speed and efficiency of putting it into the hands of local decision makers.

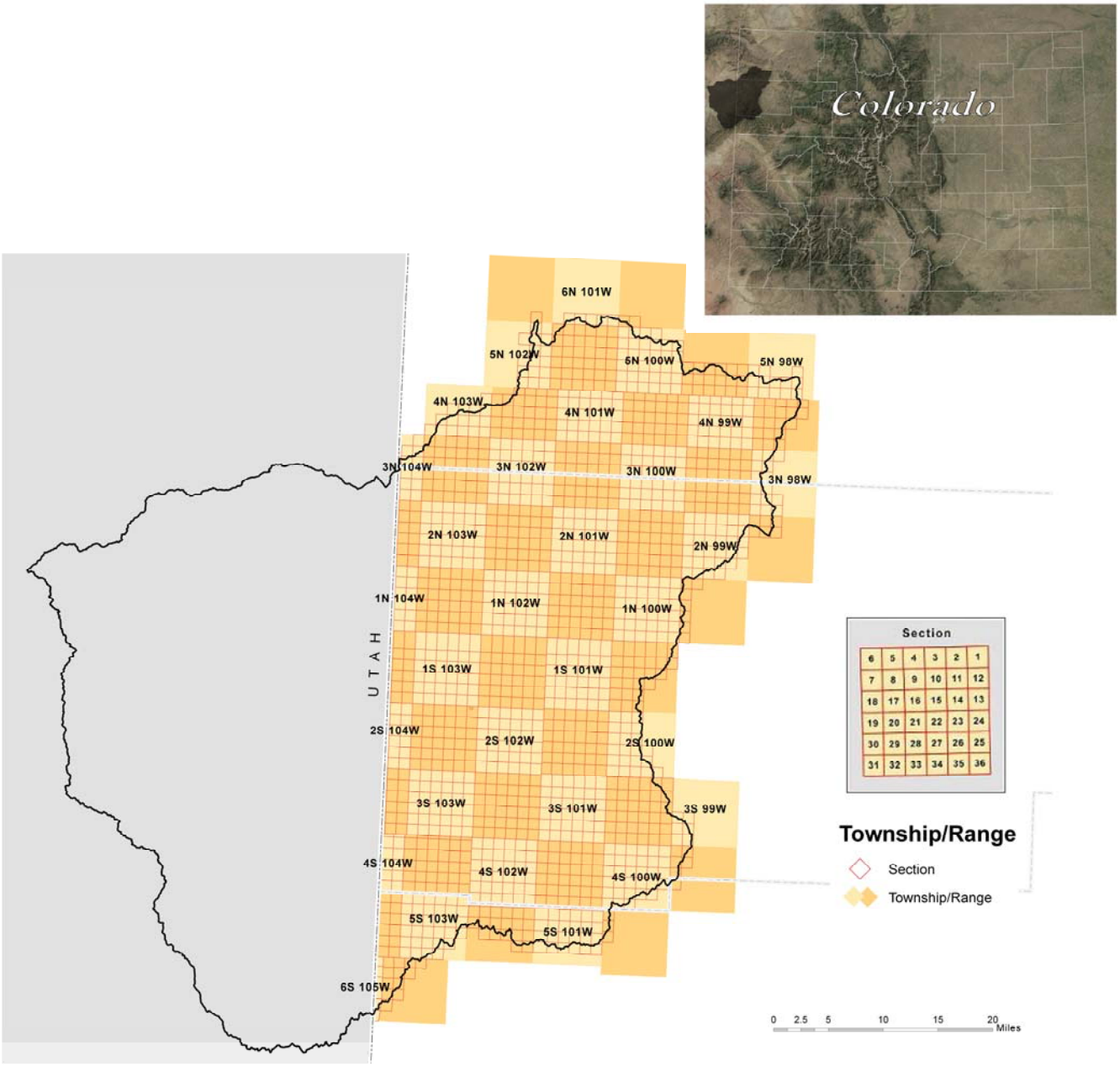
Rapid watershed assessments provide initial estimates of where conservation investments would best address the concerns of landowners, conservation districts, and other community organizations and stakeholders. These assessments help land-owners and local leaders set priorities and determine the best actions to achieve their goals.

Benefits of these Activities

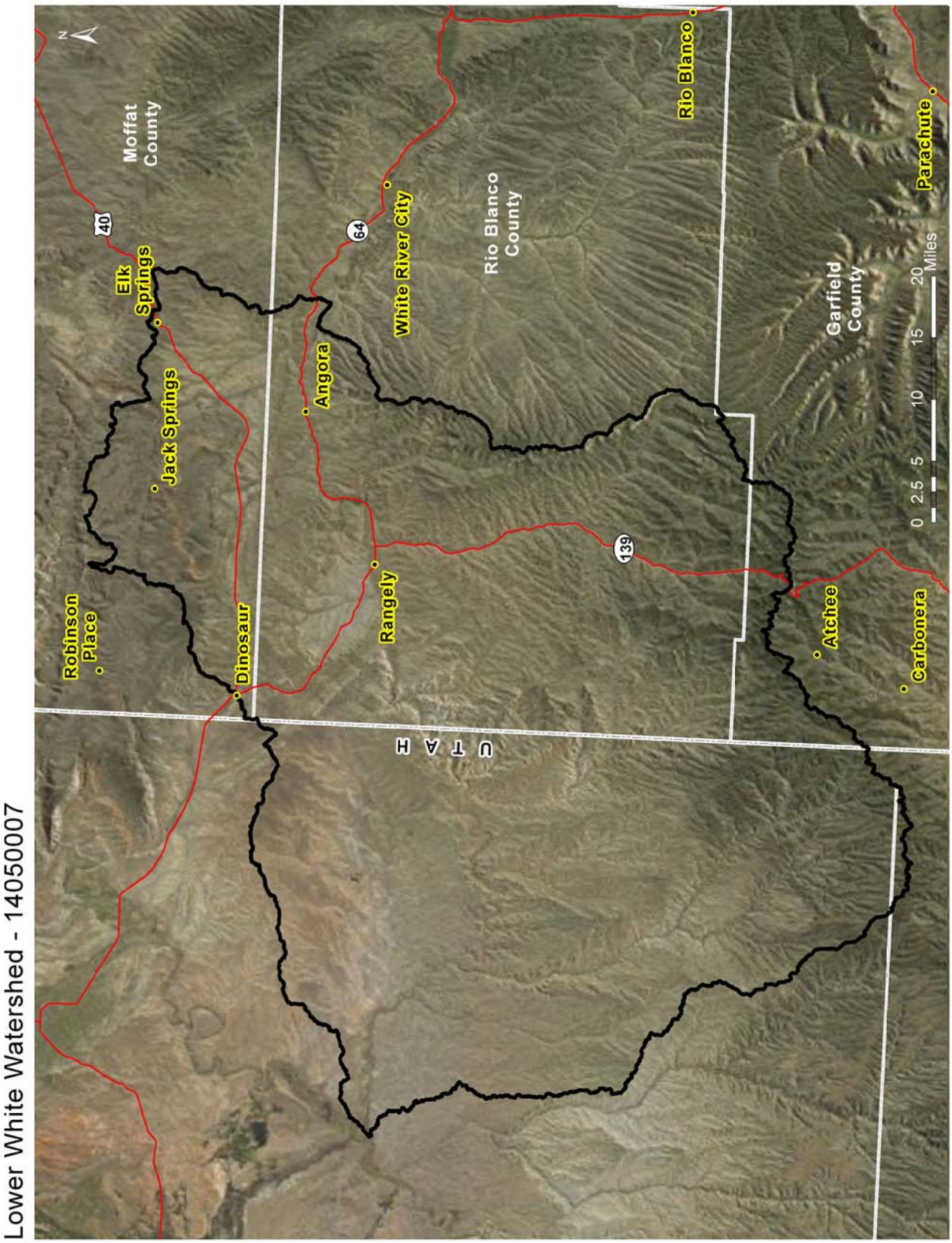
While rapid assessments provide less detail and analysis than full-blown studies and plans, they do provide the benefits of NRCS locally-led planning in less time and at a reduced cost. The benefits include:

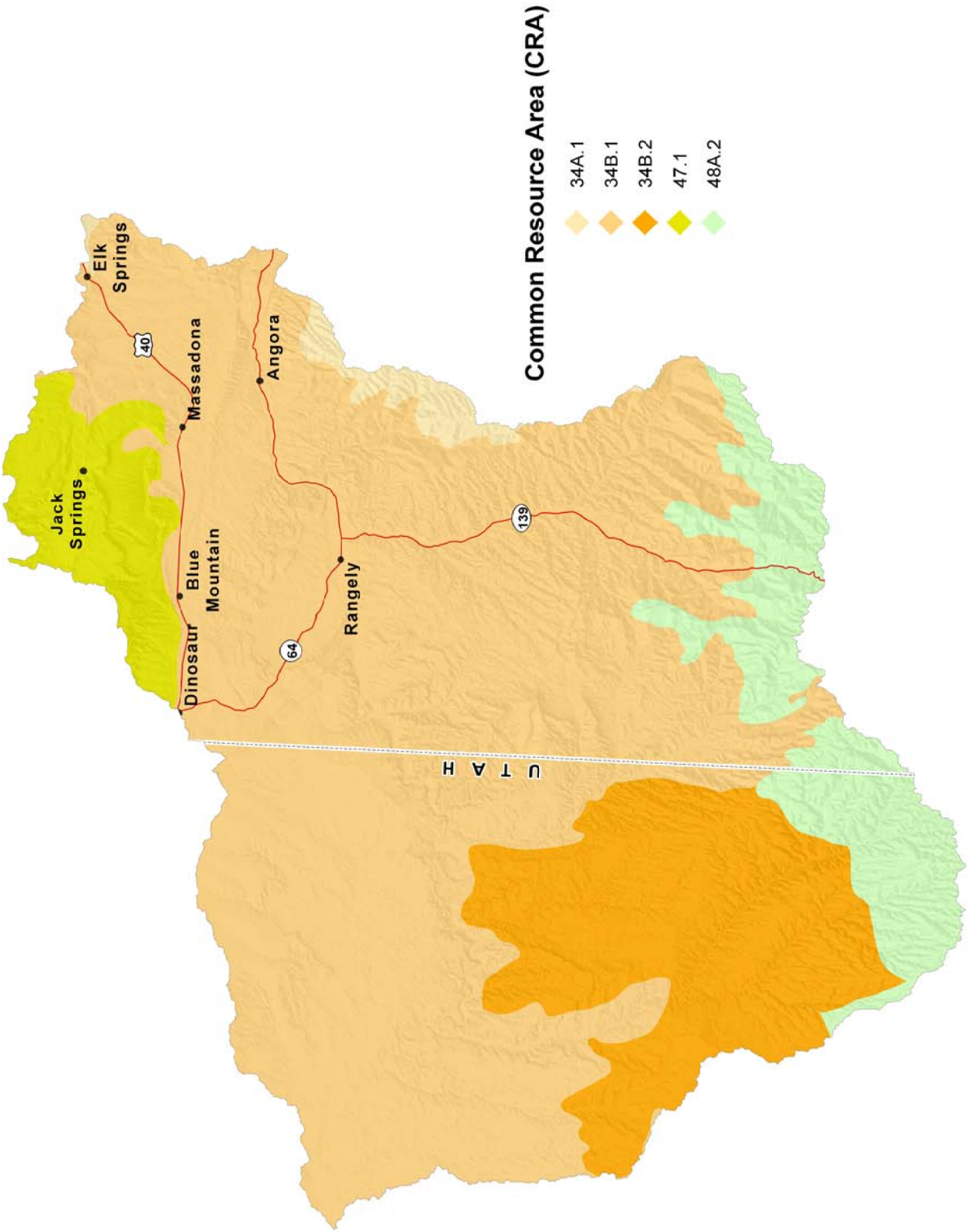
- Quick and inexpensive tools for setting priorities and taking action
- Providing a level of detail that is sufficient for identifying actions that can be taken with no further watershed-level studies or analyses
- Actions to be taken may require further Federal or State permits or ESA or NEPA analysis but these activities are part of standard requirements for use of best management practices (BMPs) and conservation systems
- Identifying where further detailed analyses or watershed studies are needed
- Plans address multiple objectives and concerns of landowners and communities
- Plans are based on established partnerships at the local and state levels
- Plans enable landowners and communities to decide on the best mix of NRCS programs that will meet their goals
- Plans include the full array of conservation program tools (i.e. cost-share practices, easements, technical assistance)

Rapid Watershed Assessments provide information that helps land-owners and local leaders set conservation priorities.



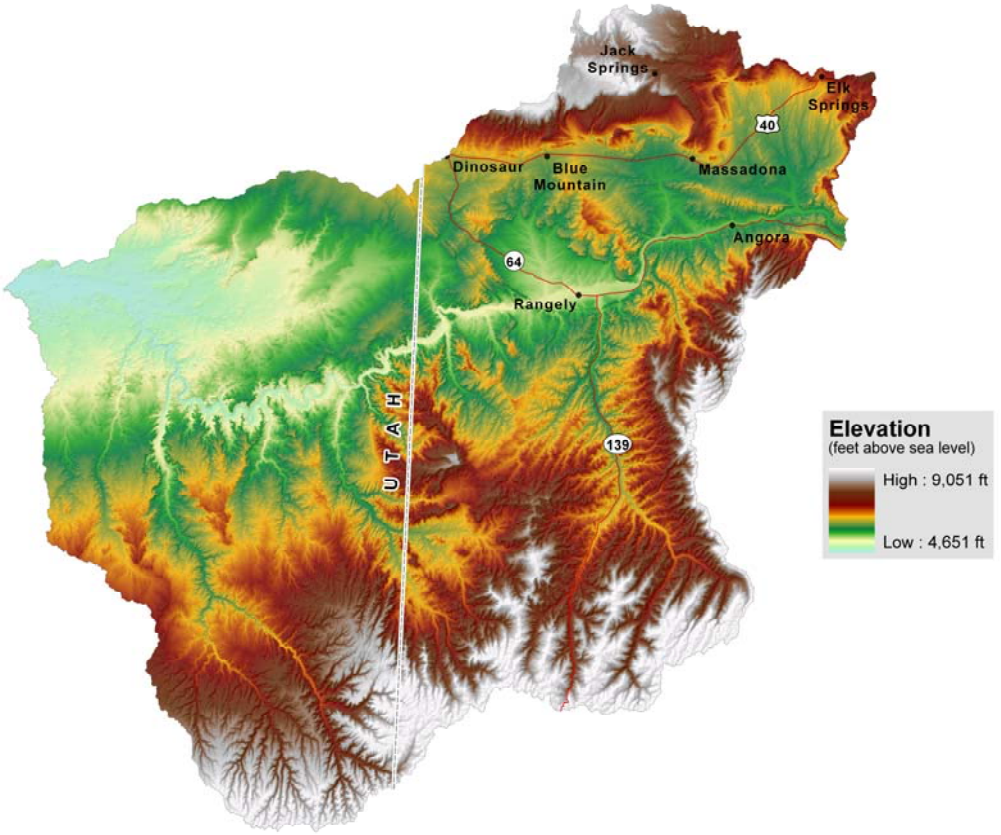
COLORADO County	**County Acres**	**County Acres in LOWER WHITE Water-shed**	**% of County in the Watershed**	**% of Watershed in the County**
Garfield	1,893,489	58,480	3.1%	3.3%
Moffat	3,043,524	211,350	6.9%	12.1%
Rio Blanco	2,064,823	674,534	32.7%	38.6%
UTAH County				
Grand	2,362,856	5,223	0.2%	0.3%
Uintah	2,884,082	798,428	27.7%	45.7%
		1,748,015		

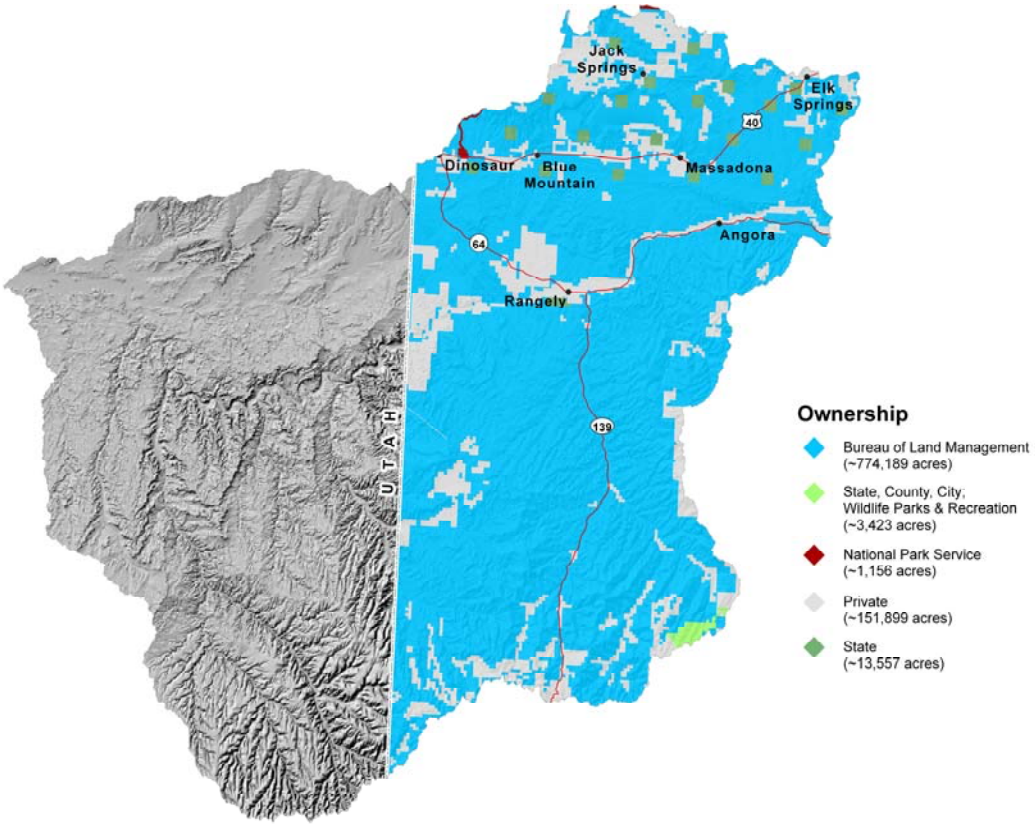

Lower White Watershed - 14050007
Moffat County
Rio Blanco County
Garfield County
Robinson Place
Elk Springs
Jack Springs
Dinosaur
Angora
Rangely
White River City
Rio Blanco
Atchee
Carbonera
Parachute
40
64
139
UTAH
0 2.5 5 10 15 20 Miles

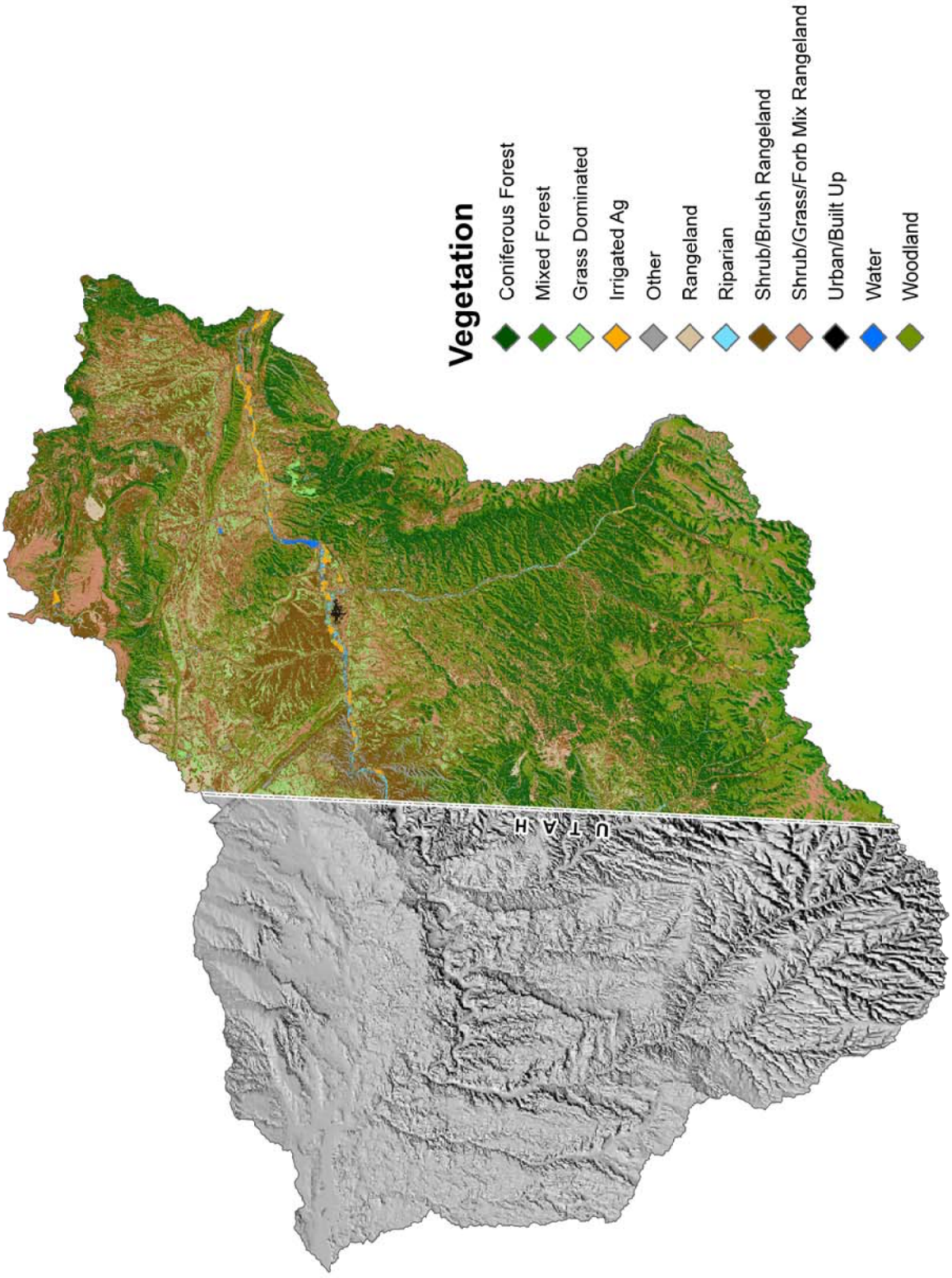

Common Resource Area (CRA)
34A.1
34B.1
34B.2
47.1
48A.2
Elk Springs
Massadona
Angora
Jack Springs
Blue Mountain
Dinosaur
Rangely
40
64
139
UTAH

Common Resource Area Descriptions

MLRA	CRA	CRA NAME	CRA DESCRIPTION
34A	**34A.1**	Cool Central Desertic Basins and Plateaus--Green River Basin	This unit is in the cool semiarid basins, plateaus, and low mountains that are west of the Continental Divide in MLRA 34A. Soils have an aridic moisture regime and frigid temperature regime. Vegetation is sage-brush or shadscale and bunchgrasses. Major use is range. Precipitation ranges from 7 to 14 inches. Ele-
34B	**34B.1**	Warm Central Desertic Basins and Plateaus - Semiarid Plateaus and Low Mountains	This area is on broad plateaus and in narrow saline basins in Colorado and Utah. Soils have an aridic moisture regime and a mesic temperature regime. Natural vegetation is typically big sagebrush and bunchgrasses. Major use is range. Precipitation ranges from 5 to 16 inches. Elevations range from
34B	**34B.2**	Warm Central Desertic Basins and Plateaus - Uncompahgre and Grand Valleys	This area is in the broad valleys of the Uncompahgre and Colorado Rivers. It includes a sizeable area of irrigated cropland, vineyards, and orchards. The tem-perature regime is mesic and the moisture regime is aridic (typic aridic subclass). Natural vegetation is typically shadscale, Gardner saltbush, and mat salt-bush. Frost free periods are long, in some places
47	**47.1**	Wasatch and Uinta Mountains - Low Mountains and Foothills; Utah, Wyoming, and Colorado	This unit is in the gently sloping to steep semiarid low mountains and hills in the Wasatch and Uinta Moun-tains. Soils have xeric or ustic moisture regimes with frigid or cryic temperature regimes. Precipitation ranges from 10 to about 18 inches. Elevations are about 5,000 to 8 ,000 feet. Range and cropland are the predominant land uses.
48A	**48A.1**	Southern Rocky Mountains - High Mountains and Valleys	This area is best characterized by steep, high moun-tain ranges and associated mountain valleys. The temperature regimes are mostly frigid and cryic; mois-ture regimes are mainly ustic and udic. Vegetation is sagebrush-grass at low elevations, and with increas-ing elevation ranges from coniferous forest to alpine tundra. Elevations range from 6,500 to 14,400 feet.


Jack Springs
Elk Springs
40
Dinosaur
Blue Mountain
Massadona
Angora
64
Rangely
139
U T A H
Elevation
(feet above sea level)
High : 9,051 ft
Low : 4,651 ft


Jack Springs
Elk Springs
40
Dinosaur
Blue Mountain
Massadona
Angora
64
Rangely
139
U T A H
Ownership
Bureau of Land Management
(~774,189 acres)
State, County, City;
Wildlife Parks & Recreation
(~3,423 acres)
National Park Service
(~1,156 acres)
Private
(~151,899 acres)
State
(~13,557 acres)

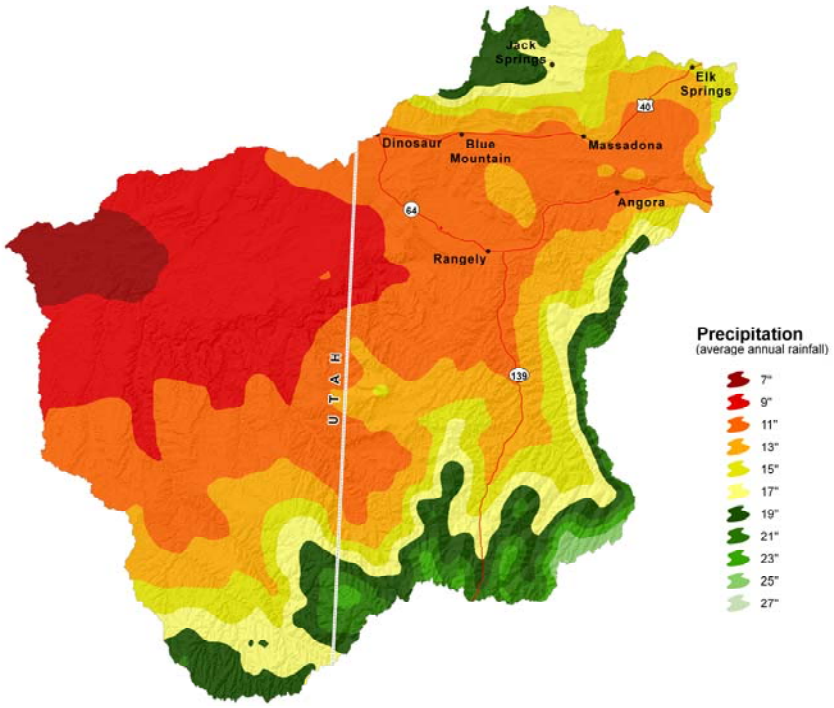

Vegetation
Coniferous Forest
Mixed Forest
Grass Dominated
Irrigated Ag
Other
Rangeland
Riparian
Shrub/Brush Rangeland
Shrub/Grass/Forb Mix Rangeland
Urban/Built Up
Water
Woodland
UTAH

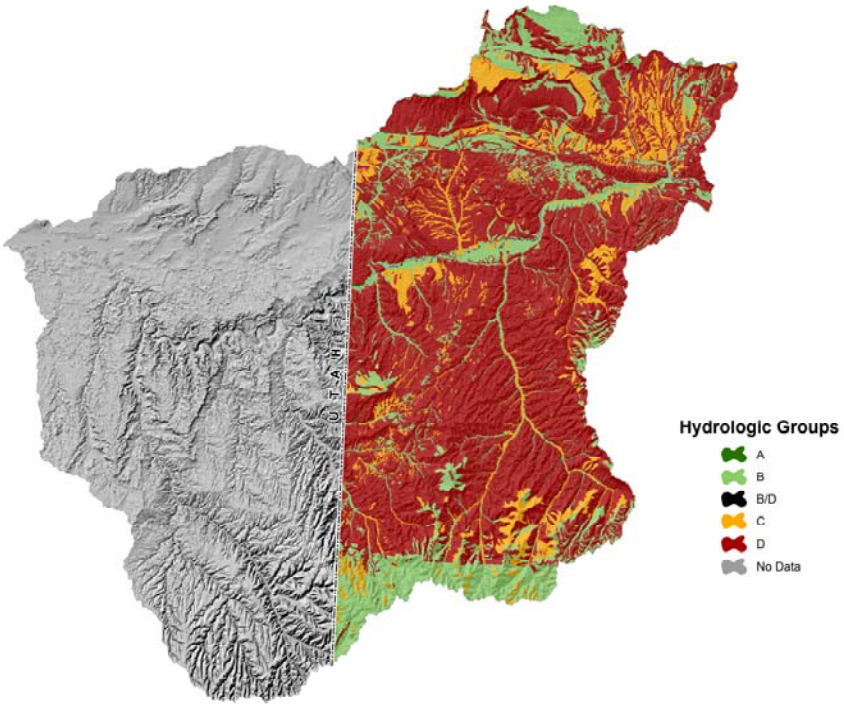
LOWER WHITE WATERSHED Land Use	Total Acreage	Vegetation	Acreage
Cropland	3,138	Irrigated Ag*	3,138.0
Rangeland/Grassland	873,531	Bitterbrush Community	13.3
		Disturbed Rangeland	5,923.1
		Foothill and Mountain Grasses	17,172.6
		Gambel Oak	16,192.0
		Grass Dominated	53,459.6
		Grass/Forb Mix	663.3
		Greasewood	17,298.3
		Juniper	39,351.4
		Juniper/Mtn Shrub Mix	24.1
		Juniper/Sagebrush Mix	29,601.7
		Mesic Mountain Shrub Mix	25,737.9
		PJ-Mtn Shrub Mix	31,362.5
		PJ-Oak Mix	7,597.1
		PJ-Sagebrush Mix	25,042.6
		Pinon-Juniper	149,133.8
		Rabbitbrush/Grass Mix	23.9
		Sagebrush Community	82,996.7
		Sagebrush/Gambel Oak Mix	2.0
		Sagebrush/Grass Mix	127,081.2
		Sagebrush/Greasewood	23,543.1
		Sagebrush/Mesic Mtn Shrub Mix	45,146.9
		Sagebrush/Rabbitbrush Mix	1,111.2
		Salt Desert Shrub Community	19.0
		Saltbush Community	73,644.2
		Serviceberry/Shrub Mix	2,112.6
		Shrub/Grass/Forb Mix	38.8
		Snowberry/Shrub Mix	298.2
		Sparse Juniper/Shrub/Rock Mix	49,561.5
		Sparse PJ/Shrub/Rock Mix	45,076.5
		Xeric Mountain Shrub Mix	4,301.8
Forest	37,032	Aspen	9,152.0
		Aspen/Mesic Mountain Shrub Mix	94.7
		Douglas Fir	19,302.9
		Douglas Fir/Aspen Mix	8,418.6
		Spruce/Fir/Aspen Mix	35.7
		Sub-Alpine Fir	16.1
Riparian	10,879	Conifer Riparian	78.9
		Cottonwood	94.1
		Exotic Riparian Shrubs	3,250.7
		Herbaceous Riparian	876.0
		Riparian	1.6
		Shrub Riparian	6,577.8
Water	1,914	Water	1,913.8
Other	17,812	Disturbed Soil	621.6
		Soil	327.3
		Talus Slopes & Rock Outcrops	16,383.4
		Urban/Built Up	479.4
~Total Watershed Acres			**944,305.4**

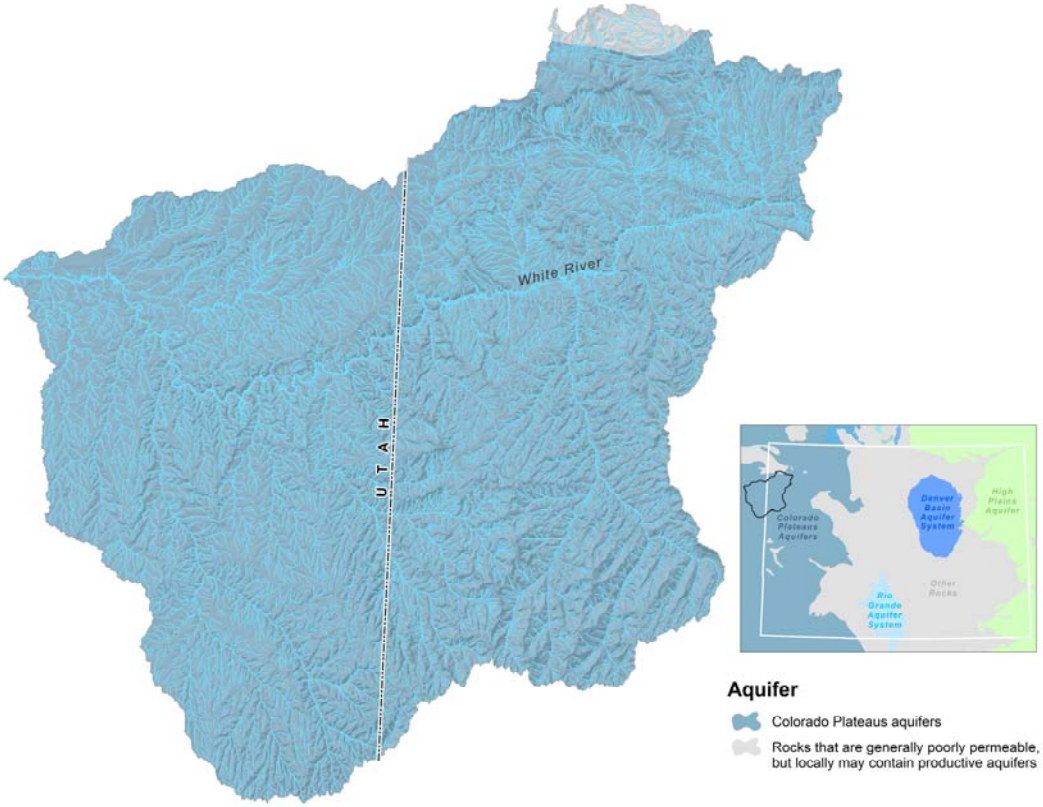
* Colorado Decision Support Systems Data

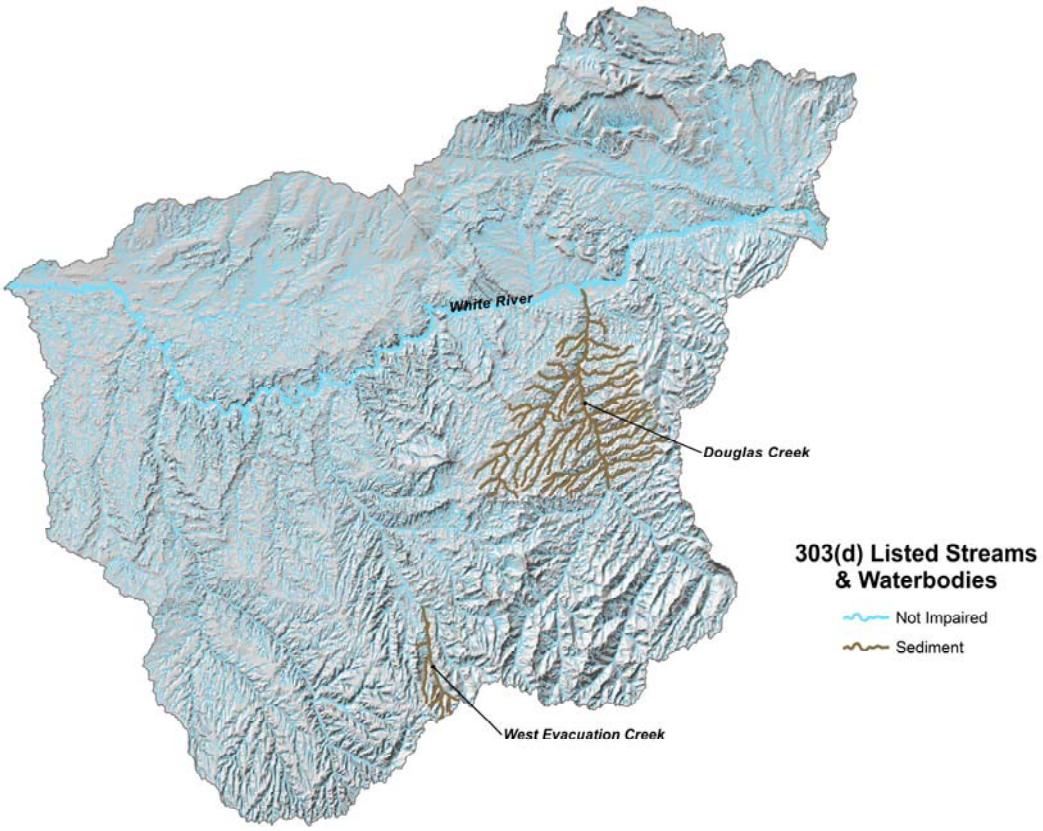
Precipitation

Droughts are regular visitors to the watershed as with the rest of Colorado. Statewide, in the 1900's alone, four prolonged dry spells occurred. There was one in the 1910s. Another, in the '30s, caused the dust-bowl period. The second worst drought on record in the state occurred in the mid-50s. A series of hot, dry summers following a period of scant mountain snowpack created water shortages. The fourth drought hit parts of Colorado in the late 1970s. In this century, the most severe drought since 1723 hit the state in 2002. Prior to the 1700's, researchers looking at tree ring records have found evidence of even more severe droughts, some lasting many years.






White River
U T A H
Colorado Plateaus Aquifers
Denver Basin Aquifer System
High Plains Aquifer
Other Rocks
Rio Grande Aquifer System
Aquifer
Colorado Plateaus aquifers
Rocks that are generally poorly permeable, but locally may contain productive aquifers


White River
Douglas Creek
West Evacuation Creek
303(d) Listed Streams & Waterbodies
Not Impaired
Sediment

Class 1 - soils have few limitations that restrict their use.

Class 2 - soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class 3 - soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

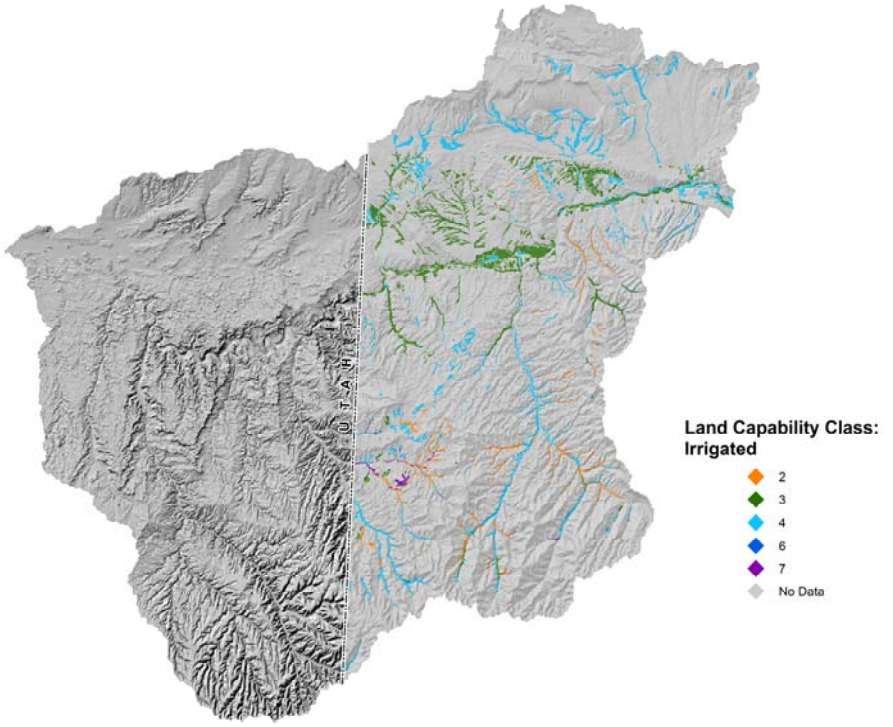
Class 4 - soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

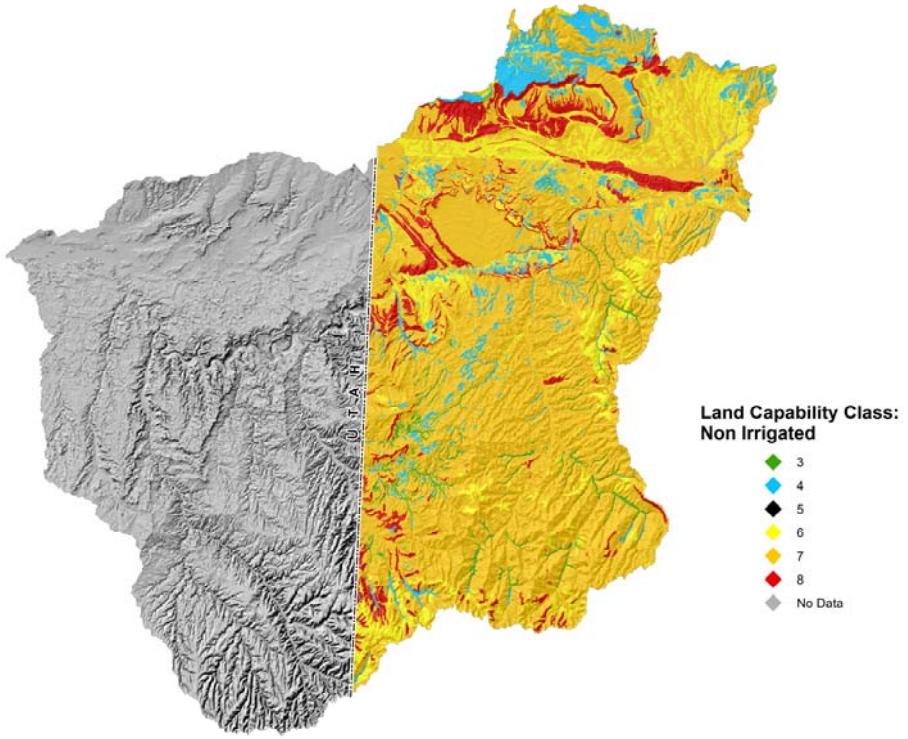
Class 5 - soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

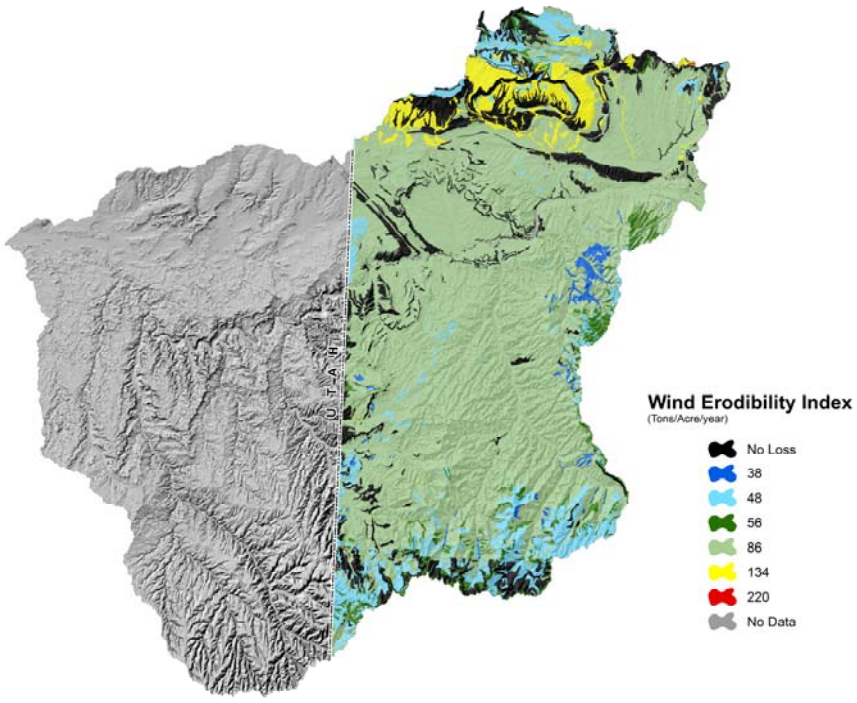
Class 6 - soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 - soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 - soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or aesthetic purposes.

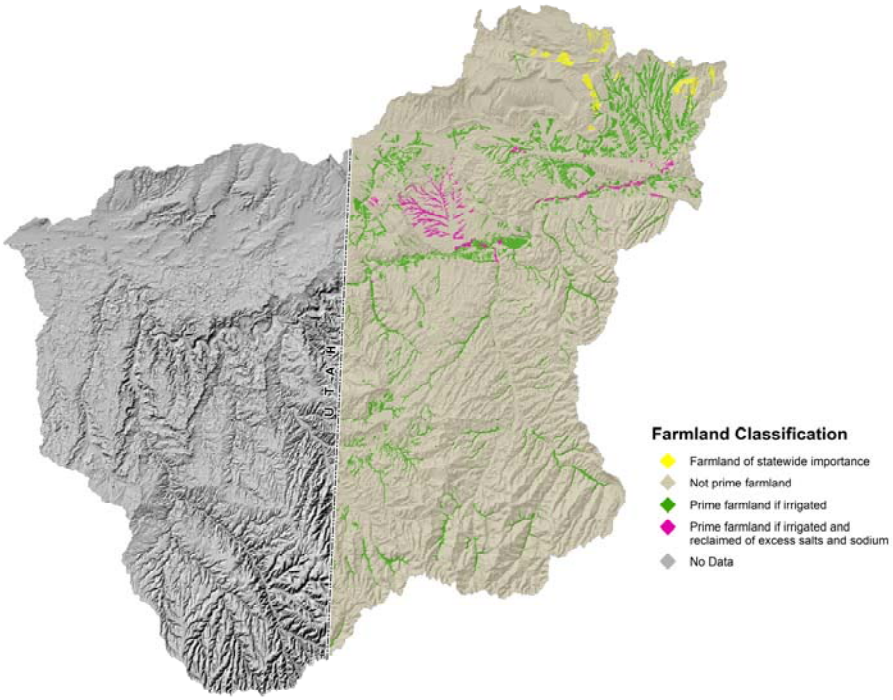


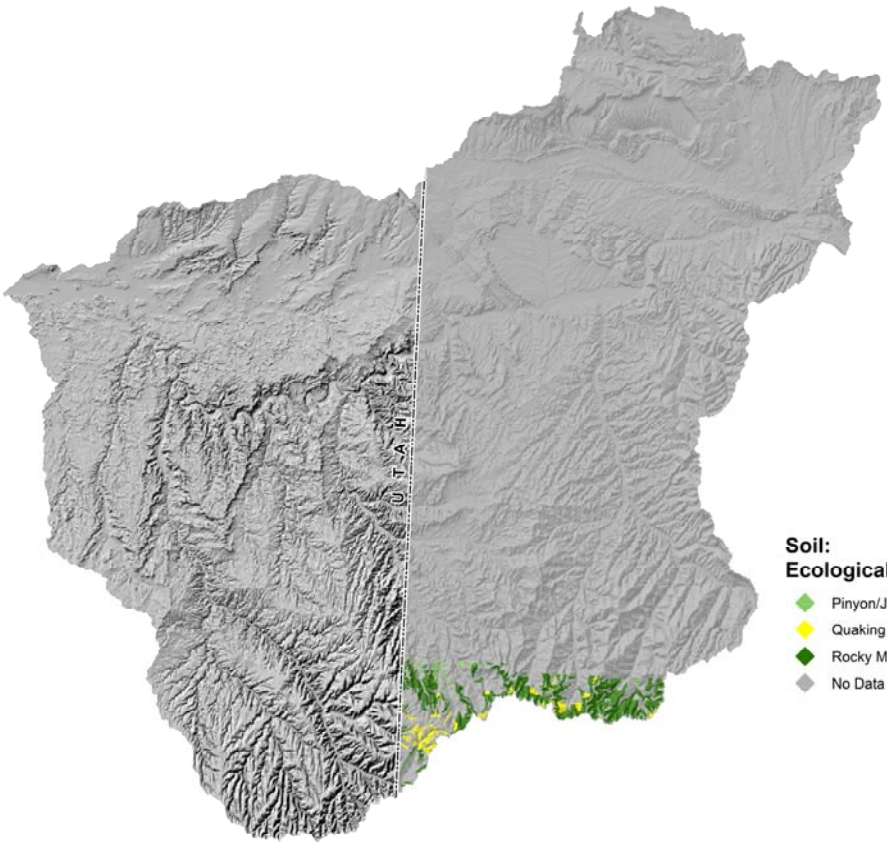




The Wind Erodibility Index (WEI): numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion if it is assumed there is no vegetative cover or management.

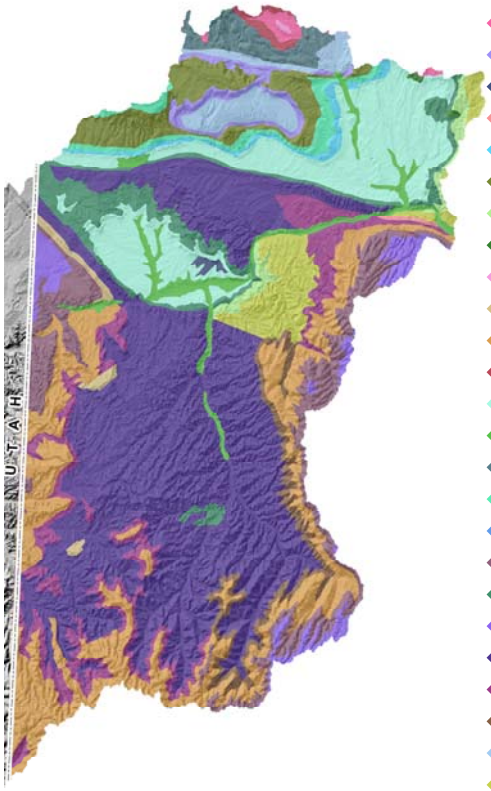
Soils with an erodibility index equal to or greater than 8 are considered highly erodible.





Soil:
Ecological Site Names

- Pinyon/Juniper
- Quaking Aspen
- Rocky Mountain Douglas-Fir
- No Data



Geology

- BROWNS PARK FORMATION
- CHINLE, MOENKOPI, AND PARK CITY FORMATIONS
- EOLIAN DEPOSITS
- FORT UNION FORMATION
- FRONTIER SANDSTONE AND MOWRY SHALE MEMBERS OF MANCOS SHALE AND DAKOTA SANDSTONE
- GLEN CANYON SANDSTONE
- ILES FORMATION
- LANDSLIDE DEPOSITS
- LEADVILLE LIMESTONE, WILLIAMS CANYON LIMESTONE, MANITOU LIMESTONE, AND SAWATCH QUARTZITE
- LOWER PART OF GREEN RIVER FORMATION AND WASATCH FORMATION
- Lower part
- MADISON LIMESTONE AND LODORE FORMATION
- MANCOS SHALE
- MODERN ALLUVIUM
- MORGAN FORMATION (LIMESTONE, SANDSTONE, AND SHALE) AND ROUND VALLEY LIMESTONE
- MORRISON, CURTIS, AND ENTRADA FORMATIONS
- OLIGOCENE SEDIMENTARY ROCKS
- Parachute Creek Member
- SEGO SANDSTONE, BUCK TONGUE OF MANCOS SHALE, AND CASTLEGATE SANDSTONE
- UINTA FORMATION
- Upper part
- WASATCH FORMATION
- WASATCH FORMATION (INCLUDING FORT UNION EQUIVALENT AT BASE) AND OHIO CREEK FORMATION
- WEBER SANDSTONE
- WILLIAMS FORK FORMATION

State and Federal Threatened, Endangered, and Candidate Species and Species of Special Concern in Lower White Watershed

Common Name	Scientific Name	Class	State Status/Federal Status	Comments
Bald Eagle	*Haliaeetus leucocephalus*	Birds	Threatened/None	Occurs year-round in the watershed
Bonytail	*Gila elegans*	Fish	Endangered/Endangered	Water depletions in the watershed may affect downstream habitats/ fish
Colorado Pikeminnow	*Ptychocheilus lucius*	Fish	Threatened/Endangered	Critical habitat in the watershed
Canada Lynx	*Lynx canadensis*	Mammals	Endangered/Threatened	Occurs in the watershed
Colorado River Cutthroat Trout	*Oncorhynchus clarki pleuriticus*	Fish	Concern/None	Occurs in the watershed
Colorado Roundtail Chub	*Gila robusta*	Fish	Concern/None	May occur in the watershed
Columbian Sharp-tailed Grouse	*Tympanuchus phasianellus columbianus*	Birds	Concern/None	Occurs in the watershed
Dudley Bluffs Bladderpod	*Lesquerella congesta*	Plants	None/Threatened	May occur in the watershed
Dudley Bluffs Twinpod	*Physaria obcordata*	Plants	None/Threatened	May occur in the watershed
Greater Sage Grouse	*Centrocercus urophasianus*	Birds	Concern/None	Occurs in the watershed
Greater Sandhill Crane	*Grus canadensis tabida*	Birds	Concern/None	May occur in the watershed
Humpback Chub	*Gila cypha*	Fish	Threatened/Endangered	Water depletions in the watershed may affect downstream habitats/ fish
Mountain Sucker	*Catostomus platyrhynchus*	Fish	Concern/None	May occur in the watershed
Northern Leopard Frog	*Rana pipiens*	Amphibians	Concern/None	Occurs in the watershed
Northern River Otter	*Lontra canadensis*	Mammals	Threatened/None	Occurs in the watershed
Razorback Sucker	*Xyrauchen texanus*	Fish	Endangered/Endangered	Water depletions in the watershed may affect downstream habitats/ fish
River Otter	*Lontra canadensis*	Mammals	Threatened/None	Occurs in the watershed
Townsend's big-eared bat (pale ssp)	*Corynorhinus townsendii pallescens*	Mammals	Concern/None	Occurs in the watershed
White River Beardtongue	*Penstemon scariosus var. albifluvis*	Plants	Concern/None	May occur in the watershed
Wolverine	*Gulo gulo*	Mammals	Endangered/None	Suitable habitat in watershed; No current records of occurrence
Western Yellow-billed Cuckoo	*Coccyzus americanus*	Birds	Concern/Candidate	May occur in the watershed

The terrestrial habitats in this watershed include both irrigated and dry cropland; big sagebrush, pinyon-juniper, and oak shrub habitats; spruce-fir, aspen, and a small amount of lodgepole forest habitats; subalpine meadows; and tundra. Numerous riparian areas and lakes provide aquatic habitats in the watershed.

Wildlife species found at the highest elevations on the east edge of the watershed include pika, marmot, bighorn sheep, and white-tailed ptarmigan.

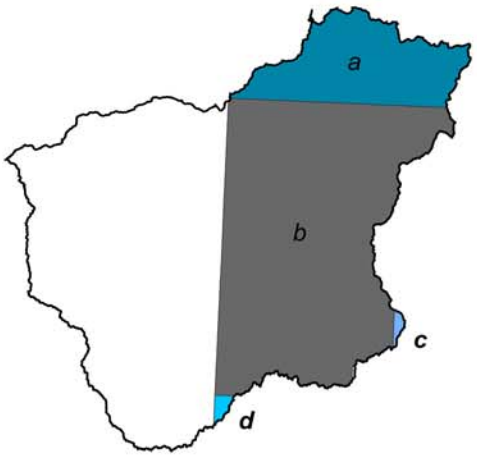
Economically important species in the watershed include: black bear, elk, mule deer, mountain lion, and trout, throughout large parts of the watershed; pronghorn in the north part of the watershed; wild turkey in the south part of the watershed; and snow geese in the White River and associated riparian areas.

Social Data	Rio Blanco	Garfield	Moffat
Demographics (US Census, American Factfinder)			
Total population	5,986	43,791	13,184
Male	3,021	22,489	6,836
Female	2,965	21,302	6,348
Median age (years)	37.5	34.2	35.4
White	5,687	39,394	12,341
Black or African American	11	196	28
American Indian and Alaska Native	46	310	116
Asian	17	191	44
Native Hawaiian and Other Pacific Islander	0	35	3
Some other race	121	2861	418
Hispanic or Latino (of any race)	296	7300	1247
Economic Characteristics (US Census, American Factfinder)			
In labor force (population 16 years and over)	3,143	23,562	6,875
Median household income (dollars)	37,711	47,016	41,528
Median family income (dollars)	44,425	53,840	45,511
Per capita income (dollars)	17,344	21,341	18,540
Families below poverty level	112	522	249
Individuals below poverty level	556	3206	1086
County Agricultural Characteristics (Colorado Agricultural Census, county data tables)			
Farms (number)	245	499	443
Land in farms/ranches (acres)	376,509	404,335	1,017,612
Average size farm/ranch (acres)	1,537	810	2,297
Median size farm (acres)	305	110	400
Average age of farmer or rancher	56.5	54	52.7
Net cash return from ag sales ($1,000)	2,081	-1,364	1,407
Cattle and calves (number)	21,000	22,000	32,000

Identified Long Range Resource Concerns

Top Three Concerns within Conservation Districts

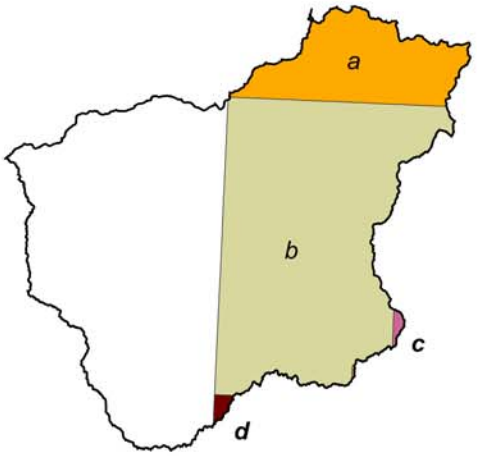
#1



Conservation Districts
a Colorado First
b Douglas Creek
c White River
d Mesa

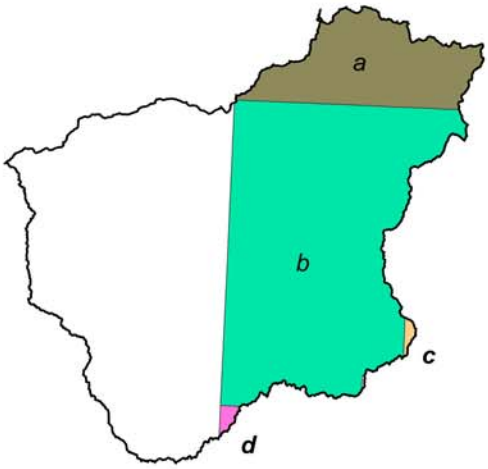
- Energy & Mineral Development
- Water Issues
- Water Quality & Management
- Water Quality & Quantity

#2



- District Financial Stability
- Private Property Rights & Public Land
- Soil Erosion & Sedimentation
- Weed Control

#3



- Rangeland
- Riparian & Streambank
- Urban Interface
- Weed & Pest Management

Selected Conservation Practices Applied, FY 2005 through FY 2009

Practice Code	Practice Name	Practice Unit	Applied Amount	Applied Count
449	Irrigation Water Management	ac	87	7
528	Prescribed Grazing	ac	45,739	25

Conservation Systems to Address Major Resource Concerns *from the Field Office Technical Guide*

Grazed Rangeland—The grazing Resources need improved plant condition (similarity index), productivity, health and vigor. Animals need feed, forage, and shelter. The animals are adapted to the climatic and ecological condition of the resources.

CO 47.1-GR-01

Practices	*Description*	*Resource Concerns Addressed*
314 Brush Management 338 Prescribed Burning 378 Pond 382 Fence 528 Prescribed Grazing 574 Spring Development 595 Pest Management 614 Watering Facility 645 Upland Wildlife Habitat Management 666 Forest Stand Improvement	This area encompasses the lower elevation mesas and Plateaus that represent the transition to the Southern Rocky Mountains. The typical vegetation is a scattered overstory of two needle pinyon and Utah juniper with a understory of big sagebrush and perennial bunchgrasses. In some areas pinyon and juniper can increase and become a dominant species.	Fish and Wildlife - T&E Species: Declining Species, Species of Concern Plant Condition - Productivity, Health and Vigor Soil Erosion - Sheet and Rill Soil Erosion - Wind

Hayland—Wild flood irrigation system converted to Structure for Water Control, Underground & Gated Pipeline, IWM, and Forage Harvest Mgt.

CO 34.1-HY-Pipe—R-1

Practices	*Description*	*Resource Concerns Addressed*
430DD Irr. Water Conveyance, Pipeline, H 431 Above Ground, Multi-Outlet Pipeline 443 Irrigation System, Surface and Subsurface 449 Irrigation Water Management 511 Forage Harvest Management 587 Structure for Water Control	Cool season grasses, alfalfa, or alfalfa/grass hay. Annual precipitation ranges from 8 - 20". Moisture usually lacking in the summer during peak ET and supplemented with gravity irrigation, the water source may be ground or surface water; rainfall often comes in short intense spring and early summer storms and as snowfall in the winter. Wildlife potential for use by elk, deer and other wildlife.	Soil Erosion - Sheet and Rill Soil Erosion - Wind Water Quantity - Inefficient Water Use on Irrigated Land

Pasture—This system is a converted wild flood to gated pipe irrigation system. Prescribed Grazing, Forage Harvest Management, Upland Wildlfie Habitat Mgt., and IWM are applied to improve plant health and production.		**CO 34.1-PA-Gated—R-01**
Practices	*Description*	*Resource Concerns Addressed*
382 Fence 430DD Irr. Water Conveyance, Pipeline, H 431 Above Ground, Multi-Outlet Pipeline 443 Irrigation System, Surface and Subsurface 449 Irrigation Water Management 511 Forage Harvest Management 528 Prescribed Grazing 587 Structure for Water Control 614 Watering Facility 645 Upland Wildlife Habitat Management	Pasture consists of cool season grasses or a mix of cool season grasses and legumes. Pasture is often grazed during or after the growing season but sometimes one cutting of hay harvested and the regrowth is grazed in the fall or winter. The Irrigation system is improved by installing a structure and gated pipe. The system efficiency is 35% with a net irrigation requirement of 16 inches.	Soil Erosion - Sheet and Rill Soil Erosion - Wind Water Quantity - Inefficient Water Use on Irrigated Land

Estimated Costs of Application of Conservation Systems

Landuse	Estimated Acres Need to be Treated	Estimated Average Cost per Acre ($)	Costs ($)
Range	30,000	30	900,000
Hayland	3,000	880	2,640,000
			Total Costs: $3,540,000

FOOTNOTES/ BIBLIOGRAPHY

303(d) listed streams within the Watershed were created using data from Colorado Department of Public Health & Environments' Water Quality & Control Commission. Impaired streams are current as of April 30, 2006. For a list of all Colorado impaired streams, locations and priority ratings, visit http://www.cdphe.state.co.us/regulations/wqccregs/100293wqlimitedsegtmdls.pdf.

Stream data from National Hydrologic Dataset http://nhd.usgs.gov

Threatened and Endangered Species information was gathered using data from the Colorado Division of Wildlife (CDOW) Natural Diversity Information Source (NDIS). NDIS GIS data may be downloaded at http://ndis.nrel.colostate.edu. For more information on Colorado's Endangered & Threatened Species, as well as Species of Concern, visit http://wildlife.state.co.us/WildlifeSpecies/SpeciesOfConcern/ThreatenedEndangeredList/ListOfThreatenedAndEndangeredSpecies.htm or http://mountainprairie.fws.gov/endspp/CountyLists/COLORADO.htm

Resource Concerns were identified using the Colorado Association of Conservation Districts' (CACD) long range (10 year) plans from the period of 1996-2000. Only the top three environmental resource concerns for each district were used. For more information on Colorado's Conservation Districts, visit http://www.cacd.us.

Maps were generated using Soil Survey Geographic Database (SSURGO) tabular and spatial data. SSURGO data was downloaded for the following Colorado surveys:

Douglas-Plateau Area (CO682) Published 12/5/2006

Rio Blanco County Area (CO685) Published 2/4/2008

Moffat County Area (CO686) Published 2/4/2008

Dinosaur National Monument (CO692)

Published 1/13/2007 **Vegetation** data was generated using the Colorado Division of Wildlife's "Colorado Vegetation Classification Project" (CVCP) data. Completed in 2003, the CVCP is a landscape level vegetation dataset created using Landsat TM imagery and then formatted for GIS use. The species identified are an overview of the most common species associated in each cover type, in order of greatest occurrence. For more information on the Colorado Vegetation Classification Project, visit http://ndis.nrel.colostate.edu/coveg.

Common Resource Area (CRA), a subdivision of the Major Land Resource Area (MLRA), is a geographical area where resource concerns, problems, or treatment needs are similar. Geographic boundaries of a CRA are determined by landscape conditions, soil, climate, human considerations and other natural resource information. For more information on Common Resource Areas visit http://soils.usda.gov/survey/geography/cra.html.

Average Annual Precipitation data was developed through a partnership between the Natural Resources Conservation Service's (NRCS) National Water and Climate Center (NWCC), the National Cartography and Geospatial Center (NCGC), and the PRISM (the Parameter-elevation Regressions on Independent Slopes Model) group at Oregon State University (OSU), developers of PRISM. Mean annual precipitation maps were developed calculating averages of rainfall for the period of 1961-1990. For more information on PRISM data visit http://www.ncgc.nrcs.usda.gov/products/datasets/climate/docs/fact-sheet.html or for more information about technical aspects of PRISM, visit the PRISM website at http://www.ocs.orst.edu/prism.

Land Ownership (status,07/22/2006 dataset) data was obtained from the Bureau of Land Management, Colorado State Office. For more information, visit http://www.blm.gov/co/st/en/BLM_Programs/geographical_sciences/gis.html

Relief & Elevation maps were created using the National Elevation Dataset (NED), 30m Digital Elevation Model (DEM) raster product assembled by the U.S. Geological Survey (USGS). A hillshade grid was created from the 30m DEM to create a 3D effect. For more information about the NED visit http://ned.usgs.gov. The data was downloaded from the NRCS Geospatial Data Gateway at http://datagateway.nrcs.usda.gov.

Forest Insect & Disease data obtained from the U.S. Forest Service annual aerial survey. For more information visit http://www.fs.fed.us/r2/resources/fhm/aerialsurvey/