

This resource assessment is designed to gather and display information specific to Daggett County, Utah. This report will highlight the natural and social resources present in the county, detail specific concerns, and be used to aid in resource planning and target conservation assistance needs. This document is dynamic and will be updated as additional information is available through a multi-agency partnership effort. The general observations and summaries are listed first, followed by the specific resource inventories.

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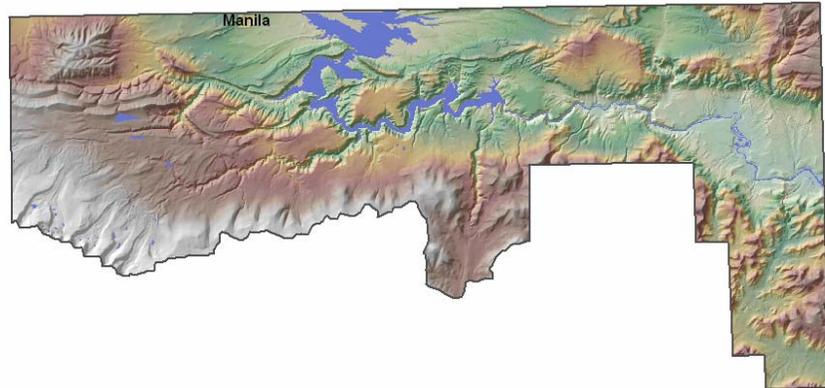
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Introduction

With the smallest county population in Utah and cut off from the rest of the state by the gigantic Uintah mountain range, Daggett County could easily be thought to belong to Wyoming. This small misplaced county is located in the extreme northeastern corner of Utah.

The total land area in Daggett County is 729 square miles. This makes it the fourth smallest county in the State of Utah, making up only .88 percent of the total state. The greater part of our county is mountainous and forested. A long section of the south line of Daggett County follows the peaks and ridges of the Uintah mountain range, the only major range in the United States which runs in an east-west direction. Maximum elevations are over 12,000 feet above sea level. Manila, which is the county seat for Daggett, is at an elevation of 6,346 feet above sea level.

Average low winter temperatures: 21°F; average high summer temperatures: 68°F; average precipitation: 12.5 inches.

Equal Opportunity Providers and Employers.



General Land Use Observations

Grass / Pasture / Hay Lands

- Complications related to overgrazing include poor pasture condition, soil compaction and water quality issues.
- Control of noxious and invasive plants is an ever increasing problem.
- Pest management plans are needed to protect water quality.

Row & Perennial (orchards / vineyards / nurseries) Crops

- Residue, nutrient and pest management are needed to control erosion and to protect water quality.
- The small, part-time farms are less likely to adopt conservation due to cost and low farm income.

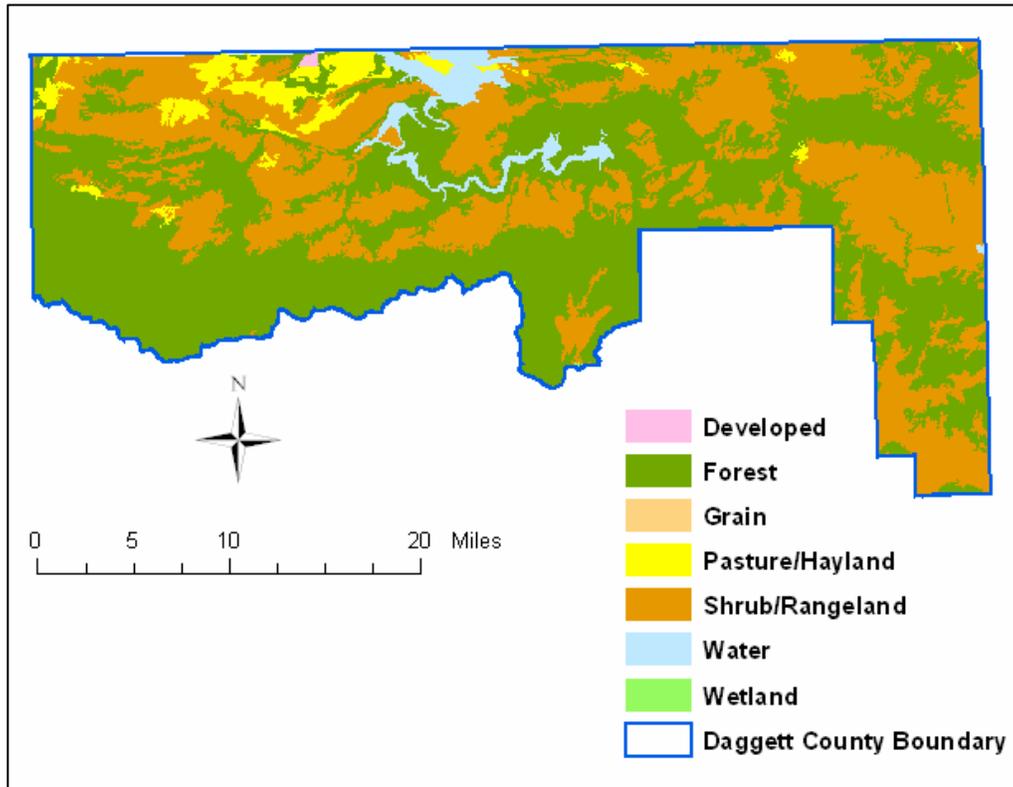
Forest

- On private, non-industrial forest there are issues with erosion, water quality and forest productivity
- On non-industrial forest land, landowner objectives often are not on actively managing the land for timber production.

Resource Assessment Summary

Categories	Concern high, medium, or low	Description and Specific Location (quantify where possible)
Soil	High	Soil erosion from headcutting and irrigation laterals is contributing to soil loss. Soil quality is low due to naturally high salt content in Uintah Basin.
Water Quantity	Low	Daggett County has average annual precipitation of 12 inches of rain.
Water Quality Ground Water	Medium	Deep percolation of salt saturated water from wild flood irrigation into underground water basins.
Water Quality Surface Water	High	High sediment and salt load from spring water and irrigation runoff are creating water quality problems into the Green River.
Air Quality	Medium	Dust from Alkali Flats causes visibility and health issues during dry times of summer.
Plant Suitability	Medium	Soil types and fertility limit the varieties plants that will grow in the farming area.
Plant Condition	Low	Present canal system is cause for spread of noxious weeds.
Fish and Wildlife	Medium	Altering canal system could affect existing artificial wetlands and wintering watering sites for wildlife.
Domestic Animals	Low	High salt load in soils prevents plant growth in grazed range areas.
Social and Economic	High	Cost of production is rising, but productivity is the same. Few economic opportunities in Manila.

Land Use/Land Cover

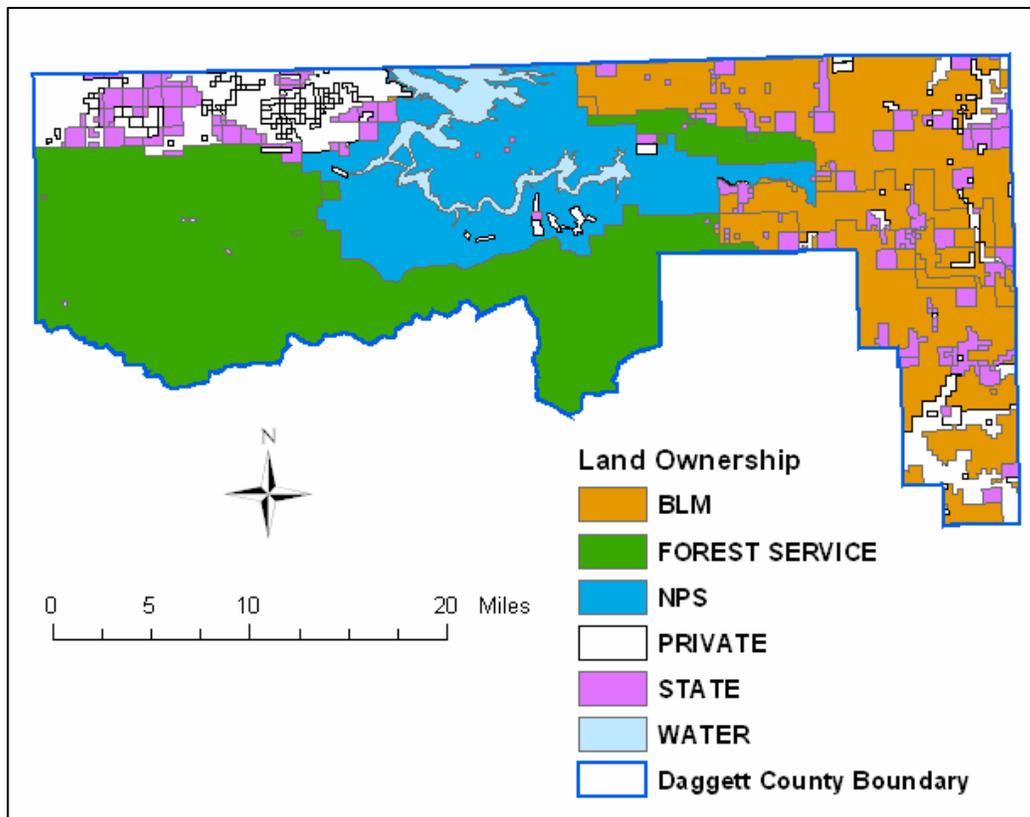


Land Cover/Land Use		
	Acres	%
Forest	247119	50.97%
Grain Crops	7	0.00%
Conservation Reserve Program *a	0	0.00%
Grass/Pasture/Haylands	27020	5.57%
Orchards/Vineyards	0	0.00%
Row Crops	0	0.00%
Shrub/Rangelands	181534	37.44%
Water	27944	5.76%
Wetlands	62	0.01%
Developed	1117	0.23%
Daggett County Totals *b	484803	100.00%

**a: Estimate from Farm Service Agency records and include CRP/CREP. *b: Totals may not add due to rounding and small unknown acreages.*

Special Considerations for Davis County:

- As of December 2004, 0 acres of CREP have been applied (FSA).
- Grass/Pasture/Hay includes approximately:
 - No farms produce grass seed (2002 Agriculture Census)
 - 18,236 acres of pasture (2002 Agriculture Census)
 - 3,818 acres of hay (2002 Agriculture Census)
 - Leaving 4,966 acres of miscellaneous grasslands within Uintah County.
- Row crops include a variety of field and vegetable crops grown for the cannery processing and fresh market.
- There are approximately 0 acres of grain (2002 Agriculture Census)
- Shrub/rangelands consist of oak savannahs, pinyon pine, juniper and other open areas.
- 1,117 acres of the county consists of urban land uses within metropolitan areas.



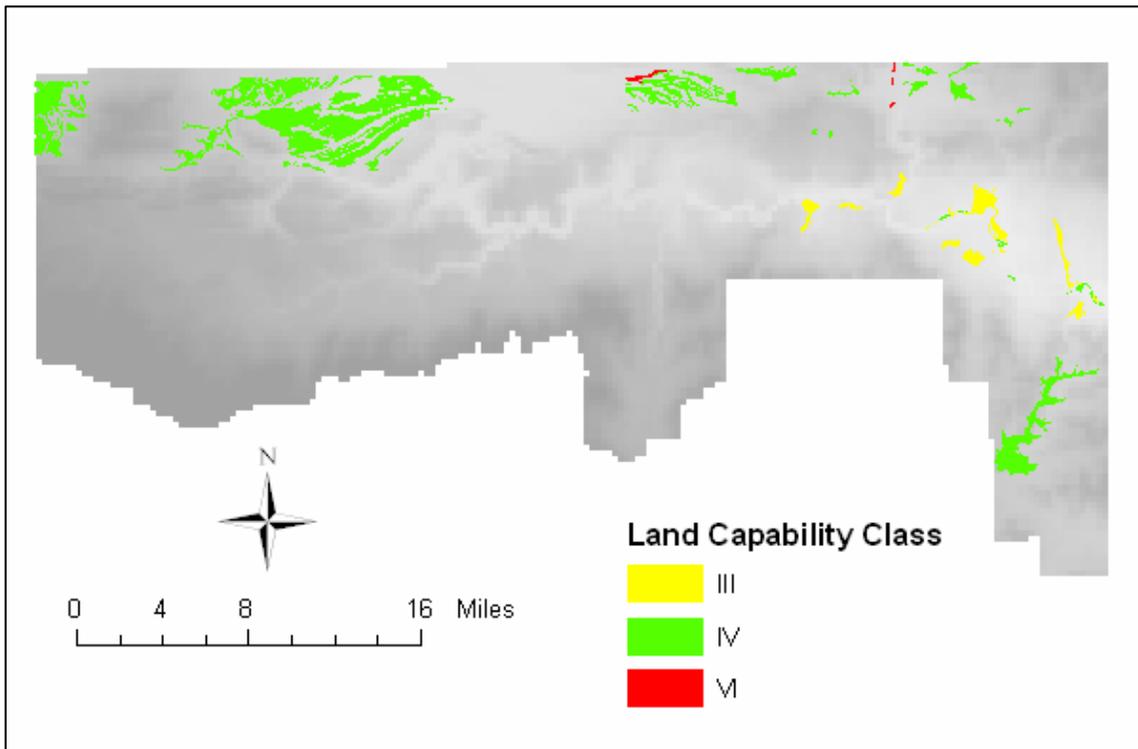
Prime & Unique Farm Land

No Prime Farmland designated in Daggett County.

Resource Concerns – SOILS

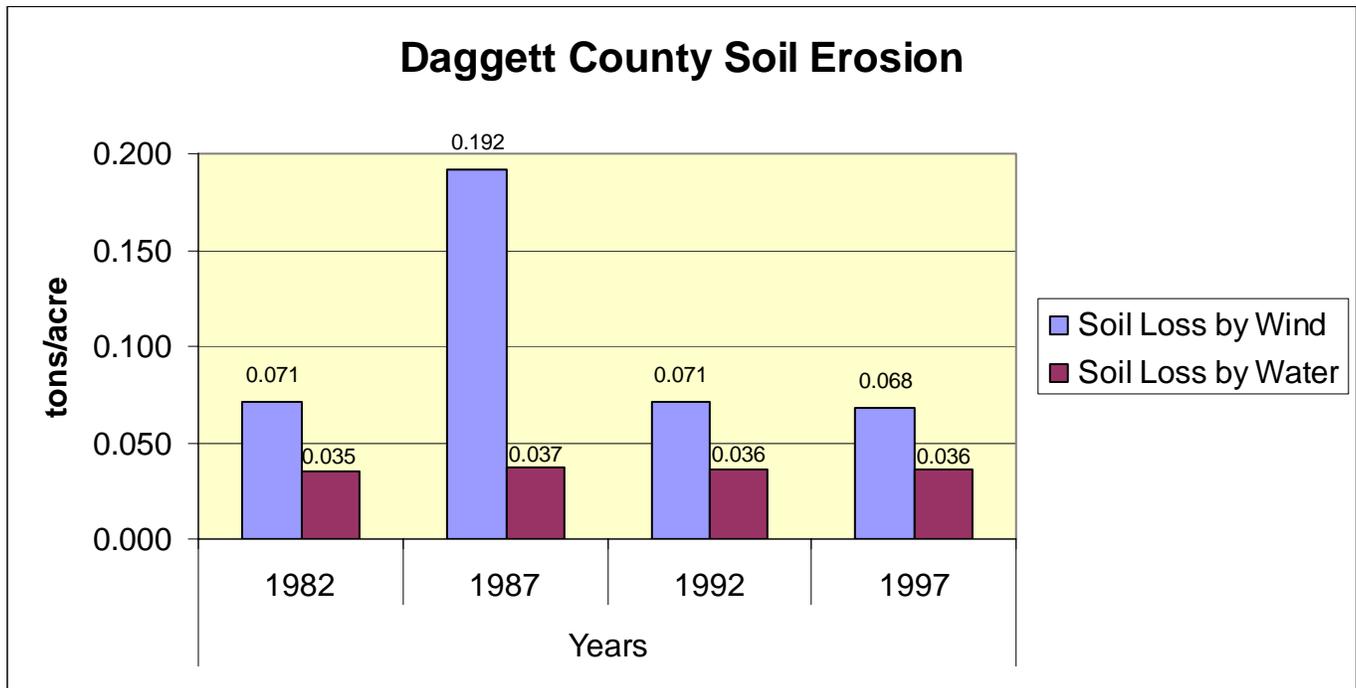
Categories	Specific Resource Concern / Issue	Crop	Hay	Pasture	Grazed Range	Grazed Forest	Pasture Native/Naturalized	Wildlife	Watershed Protection	Forest	Headquarters	Urban	Recreation	Water	Mined	Natural Area
Soil Erosion	Sheet and Rill	x														
	Wind	x														
	Ephemeral Gully															
	Classic Gully				x	x				x						
	Streambank															
	Shoreline															
	Irrigation-induced	x														
	Mass Movement									x						
	Road, roadsides and Construction Sites									x		x				
Soil Condition	Organic Matter Depletion															
	Rangeland Site Stability				x	x										
	Compaction															
	Subsidence															
	Contaminants Salts and Other Chemicals	x			x	x								x		
	Contaminants: Animal Waste and Other OrganicsN															
	Contaminants: Animal Waste and Other OrganicsP															
	Contaminants: Animal Waste and Other OrganicsK															
	Contaminants : Commercial FertilizerN	x														
	Contaminants : Commercial FertilizerP	x														
	Contaminants : Commercial FertilizerK	x														
	Contaminants Residual Pesticides															
Damage from Sediment Deposition													x			

Land Capability Class on Cropland and Pastureland



		Acres	Percentage
Land Capability Class (Irrigated Cropland & Pastureland Only)	I - slight limitations	0	0%
	II - moderate limitations	0	0%
	III - severe limitations	47,839	41%
	IV - very severe limitations	64,053	55%
	V - no erosion hazard, but other limitations	2,195	2%
	VI - severe limitations, unsuited for cultivation, limited to pasture, range, forest	1,483	1%
	VII - very severe limitations, unsuited for cultivation, limited to grazing, forest, wildlife	0	0%
	VIII - misc areas have limitations, limited to recreation, wildlife, and water supply	0	0%

Soil Erosion

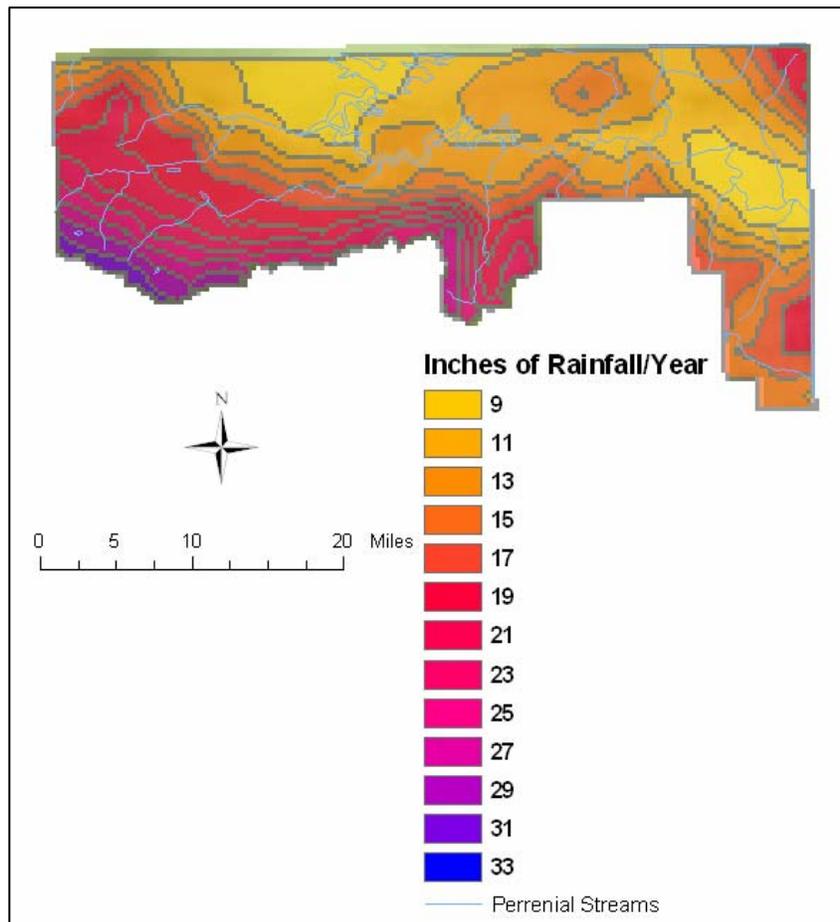


- ❖ Controlling erosion not only sustains the long-term productivity of the land, but also affects the amount of soil, pesticides, fertilizer, and other substances that move into the nation’s waters.
- ❖ Through NRCS programs many farmers and ranchers have applied conservation practices to reduce the effects of erosion by water.

Resource Concerns – WATER

Categories	Specific Resource Concern / Issue	Resource Concerns														
		Crop	Hay	Pasture	Grazed Range	Grazed Forest	Pasture Native/Naturalized	Wildlife	Watershed Protection	Forest	Headquarters	Urban	Recreation	Water	Mined	Natural Area
Water Quantity	Water Quantity – Rangeland Hydrologic Cycle															
	Excessive Seepage	X	X	X												
	Excessive Runoff, Flooding, or Ponding	X	X	X												
	Excessive Subsurface Water															
	Drifted Snow									X						
	Inadequate Outlets															
	Inefficient Water Use on Irrigated Land	X	X	X												
	Inefficient Water Use on Non-irrigated Land															
	Reduced Capacity of Conveyances by Sediment Deposition													X		
	Reduced Storage of Water Bodies by Sediment Accumulation															
	Aquifer Overdraft															
	Insufficient Flows in Watercourses															
Water Quality, Groundwater	Harmful Levels of Pesticides in Groundwater	X														
	Excessive Nutrients and Organics in Groundwater	X														
	Excessive Salinity in Groundwater	X	X	X												
	Harmful Levels of Heavy Metals in Groundwater															
	Harmful Levels of Pathogens in Groundwater															
	Harmful Levels of Petroleum in Groundwater															
Water Quality, Surface	Harmful Levels of Pesticides in Surface Water	X														
	Excessive Nutrients and Organics in Surface Water	X														
	Excessive Suspended Sediment and Turbidity in Surface Water															
	Excessive Salinity in Surface Water	X	X	X	X					X						
	Water Quality – Colorado River Excessive Salinity	X	X	X	X					X						
	Harmful Levels of Heavy Metals in Surface Water															
	Harmful Temperatures of Surface Water								X							
	Harmful Levels of Pathogens in Surface Water															
Harmful Levels of Petroleum in Surface Water																

Precipitation and Streams

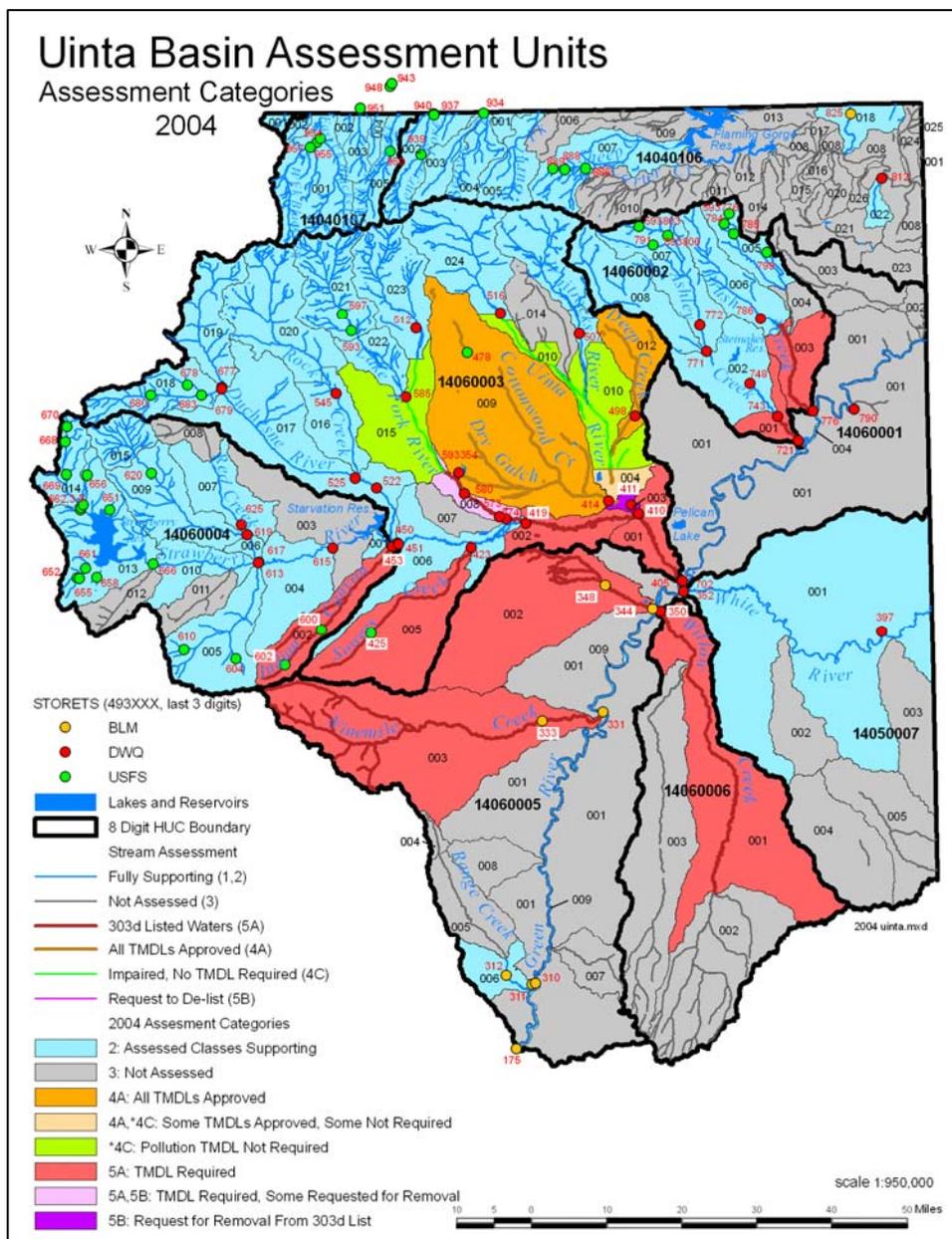


		ACRES	ACRE-FEET
Irrigated Adjudicated Water Rights	Surface	N/A	N/A
	Well	N/A	N/A
	Total Irrigated Adjudicated Water Rights	N/A	N/A
Stream Flow Data	USGS 09229500 Henry's Fork near Manila, UT	Total Avg. Yield	62,157
		May-Sept Yield	35,394
Stream Data		MILES	PERCENT
	Total Miles - Major (100K Hydro GIS Layer)	1103.30	n/a
	303d (DEQ Water Quality Limited Streams)	375.40	34%

		Irrigation Efficiency:		
		<40%	40 - 60%	>60%
Percentage of Total Acreage	Cropland	86%	9%	5%
	Pastureland	76%	18%	6%

Watersheds & Total Maximum Daily Load (TMDL)

Watershed Projects, Plans, Studies and Assessments			
NRCS Watershed Projects		NRCS Watershed Plans, Studies & Assessments	
Name	Status	Name	Status
		Sheep Creek Salinity Area	Draft in Review
DEQ TMDL's		NRCS Comprehensive Nutrient Management Plans	
Name	Status	Number	Status
Browne Lake	EPA Approved - 2003	7 2	Planned Implemented



AFO/CAFO

Animal Feeding Operations (AFO)						
Animal Type	Dairy	Feed Lot (Cattle)	Poultry	Swine	Mink	Other
No. of Farms		9				
No. of Animals		2700				

Potential Confined Animal Feeding Operations (PCAFO)						
Animal Type	Dairy	Feed Lot (Cattle)	Poultry	Swine	Mink	Other
No. of Farms		5		2		1
No. of Animals		1500		600		300

Confined Animal Feeding Operations - Utah CAFO Permit					
Animal Type	Dairy	Feed Lot (Cattle)	Poultry	Swine	Other
No. of Permitted Farms					
No. of Permitted Animals					

County	Number of AFO's and Distance to Water						Grand Total
	< 100 Feet	100 to 500 Feet	500 to 1000 Feet	1000 to 2000 Feet	2000 to 5000 Feet	>5000 Feet	
Daggett	6	2		3	3	7	21

Resource Concerns – AIR, PLANTS, ANIMALS

Categories	Specific Resource Concern / Issue															
		Crop	Hay	Pasture	Grazed Range	Grazed Forest	Pasture Native/Naturalized	Wildlife	Watershed Protection	Forest	Headquarters	Urban	Recreation	Water	Mined	Natural Area
Air Quality	Particulate matter less than 10 micrometers in diameter (PM 10)				X					X						
	Particulate matter less than 2.5 micrometers in diameter (PM 2.5)															
	Excessive Ozone															
	Excessive Greenhouse Gas: CO2 (carbon dioxide)															
	Excessive Greenhouse Gas: N2O (nitrous oxide)															
	Excessive Greenhouse Gas: CH4 (methane)															
	Ammonia (NH3)															
	Chemical Drift															
	Objectionable Odors															
	Reduced Visibility															
	Undesirable Air Movement															
	Adverse Air Temperature															
Plant Suitability	Plants not adapted or suited		X	X	X											
Plant Condition	Plant Condition – Productivity, Health and Vigor															
	Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing under the Endangered Species Act				X					X						
	Threatened or Endangered Plant Species: Declining Species, Species of Concern				X	X	X			X						
	Noxious and Invasive Plants		X	X												
	Forage Quality and Palatability				X											
	Plant Condition – Wildfire Hazard								X	X						
Fish and Wildlife	Inadequate Food															
	Inadequate Cover/Shelter															
	Inadequate Water				X											
	Inadequate Space															
	Habitat Fragmentation															
	Imbalance Among and Within Populations															
	Threatened and Endangered Species: Species Listed or Proposed for Listing under the Endangered Species Act							X								
Domestic Animals	Inadequate Quantities and Quality of Feed and Forage															
	Inadequate Shelter															
	Inadequate Stock Water					X										
	Stress and Mortality					X										

Noxious Weeds

Utah Noxious Weed List

The following weeds are officially designated and published as noxious for the State of Utah, as per the authority vested in the Commissioner of Agriculture under Section 4-17-3, Utah Noxious Weed Act:

- Bermudagrass** (cynodon dactylon)
- Canada thistle (cirsium arvense)
- Diffuse knapweed (centaurea diffusa)
- Dyers woad (isatis tinctoria L)
- Field bindweed (Wild Morning Glory) (convolvulus arvensis)
- Hoary cress (cardaria drabe)
- Johnsongrass (sorghum halepense)
- Leafy spurge (euphorbia esula)
- Medusahead (taeniatherum caput-medusae)
- Musk thistle (carduus mutans)
- Perennial pepperweed (lepidium latifolium)
- Perennial sorghum (sorghum halepense L & sorghum almum)
- Purple loosestrife (lythrum salicaria L.)
- Quackgrass (agropyron repens)
- Russian knapweed (centaurea repens)
- Scotch thistle (onopordum acanthium)
- Spotted knapweed (centaurea maculosa)
- Squarrose knapweed (centaurea squarrosa)
- Yellow starthistle (centaurea solstitialis)

There are no additional noxious weeds declared by Daggett County. (2003)

Wildlife

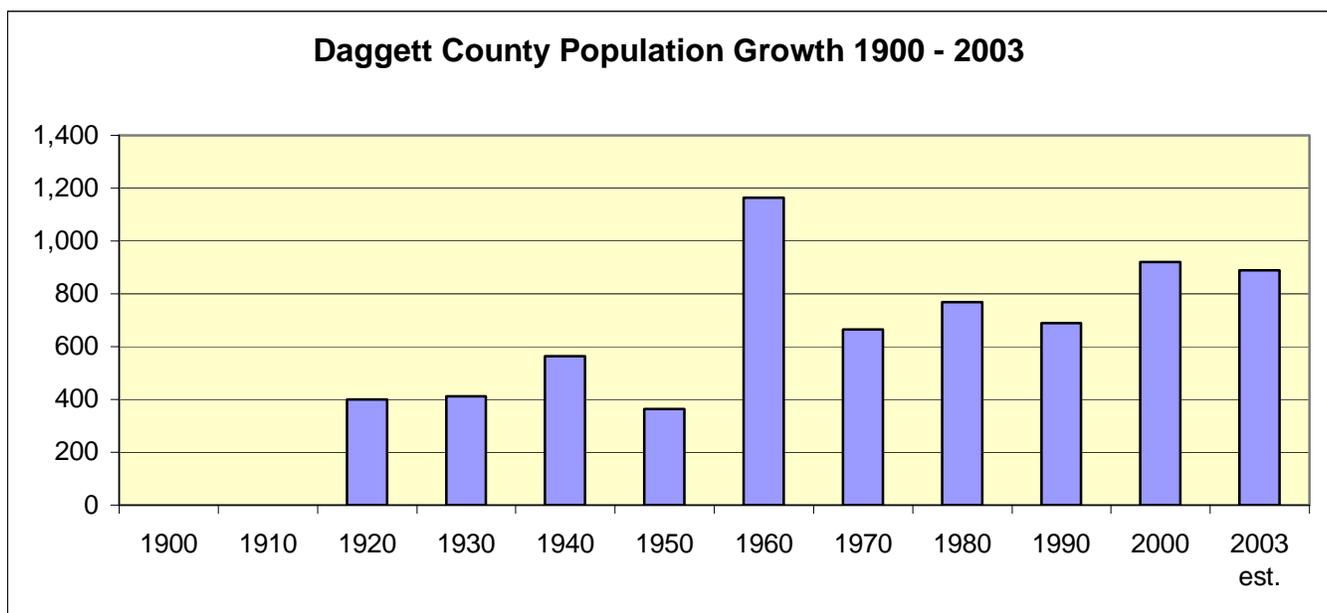
AT-RISK SPECIES				
	Common Name	Group	Primary Habitat	Secondary Habitat
FEDERALLY-LISTED				
Endangered:	Bonytail	Fish	Water - Lotic	
	Colorado Pikeminnow	Fish	Water - Lotic	
	Humpback Chub	Fish	Water - Lotic	
	Razorback Sucker	Fish	Water - Lotic	
	Black-footed Ferret (extirpated)	Mammal	Grassland	High Desert Scrub
Threatened:	Bald Eagle (breeding)	Bird	Lowland Riparian	Agriculture
	Brown (Grizzly) Bear (extirpated)	Mammal	Mixed Conifer	Mountain Shrub
	Canada Lynx	Mammal	Sub-Alpine Conifer	Lodgepole Pine
Candidate:	Yellow-billed Cuckoo	Bird	Lowland Riparian	Agriculture
Proposed:	(None)			
STATE SENSITIVE				
Conservation Agreement Species:	Bluehead Sucker	Fish	Water - Lotic	Mountain Riparian
	Colorado River Cutthroat Trout	Fish	Water - Lotic	Mountain Riparian
	Flannelmouth Sucker	Fish	Water - Lotic	
	Northern Goshawk	Bird	Mixed Conifer	Aspen
	Roundtail Chub	Fish	Water - Lotic	
Species of Concern:	Bear Lake Sculpin	Fish	Water - Lentic	
	Fringed Myotis	Mammal	Northern Oak	Pinyon-Juniper
	Greater Sage-grouse	Bird	Shrubsteppe	
	Lewis's Woodpecker	Bird	Ponderosa Pine	Lowland Riparian
	Three-toed Woodpecker	Bird	Sub-Alpine Conifer	Lodgepole Pine
	Townsend's Big-eared Bat	Mammal	Pinyon-Juniper	Mountain Shrub
	Western Toad	Amphibian	Wetland	Mountain Riparian
White-tailed Prairie-dog	Mammal	Grassland	High Desert Scrub	

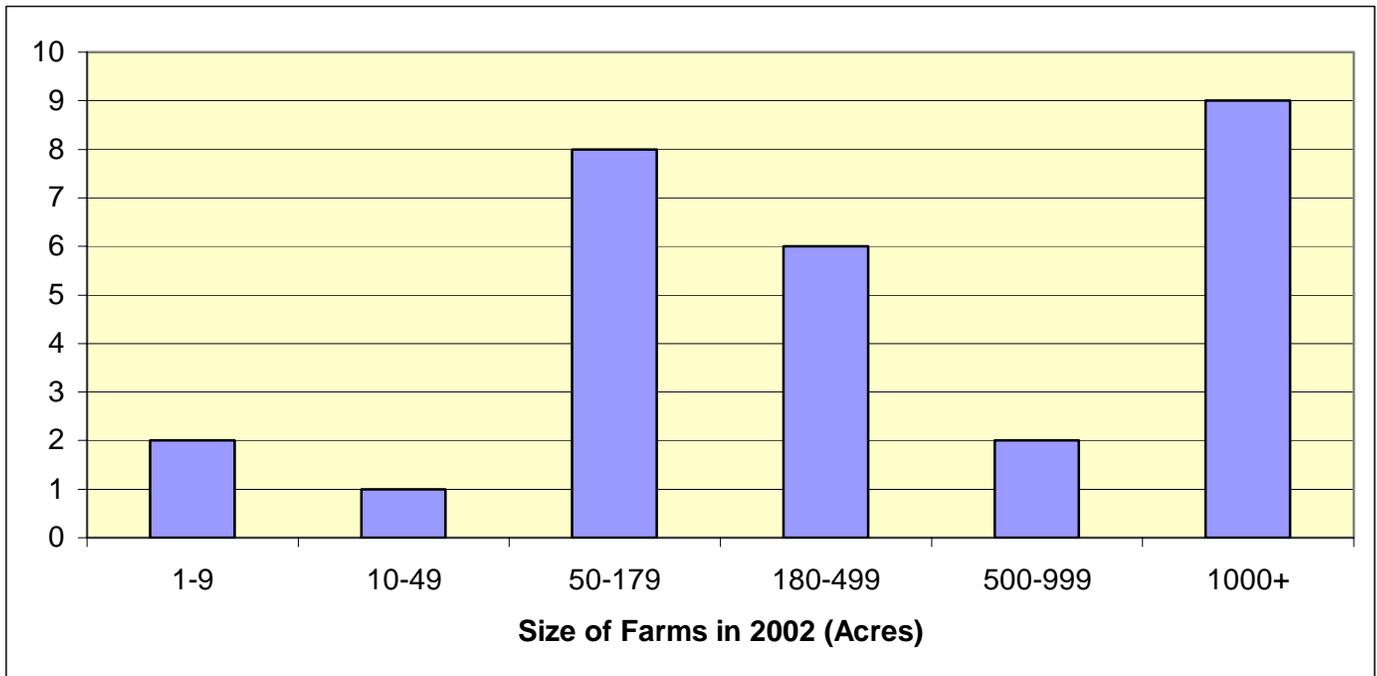
*Definitions of habitat categories can be found in the Utah Comprehensive Wildlife Conservation Strategy.

Resource Concerns – SOCIAL AND ECONOMIC

Categories	Specific Resource Concern / Issue															
		Crop	Hay	Pasture	Grazed Range	Grazed Forest	Pasture Native/Naturalized	Wildlife	Watershed Protection	Forest	Headquarters	Urban	Recreation	Water	Mined	Natural Area
Social and Economic	Non-Traditional Landowners and Tenants															
	Urban Encroachment on Agricultural Land	X	X	X								X				
	Marketing of Resource Products	X														
	Innovation Needs	X														
	Non-Traditional Land Uses															
	Population Demographics, Changes and Trends															
	Special Considerations for Land Mangement (High State and Federal Percentage)															
	Active Resource Groups (CRMs, etc)															
	Full Time vs Part Time Agricultural Communities															
	Size of Operating Units															
	Land Removed from Production through Easments															
	Land Removed from Production through USDA Programs															
	Other															

Census and Social Data





Number of Farms: 28

Number of Operators:

- Full-Time Operators: 19
- Part-Time Operators: 9

Public Survey/Questionnaire Results

Respondants felt that the following resources are of:

Immediate Concern	Future Concern	Minor Concern
Agricultural sustainability	Landslides	Biological Diversity
Rural Land Use	Food & Fiber Production	Air Quality
Rangeland Health	Flooding	Urban Water Pollution
Fish and Wildlife Habitat/Population	Threatened/Endangered Species	Urban Land Use
Groundwater	Waste Disposal	Mined Land Reclamation
Forest Health	Nutrient Management	Energy Conservation
Grazing Lands	Pesticide Management	
Invasive Species	Urban Water Pollution	
Loss of Ag. Land	Wetlands	
Open Space	Cultural Resources	
Weeds	Manure Management	
Irrigation Water Management	Recreation	
Public Land Management	Urban Land Use	
Riparian Corridors	Energy Conservation	
Water Conservation and Supply	Land Conservation to Development	
Soil Erosion		
Soil Quality		
Wildfire		
Timber Production		
Water Quality		
Small-Acreage Management		
Water Conservation and Supply		

Total # of respondents: 3

Footnotes / Bibliography

1. General information about Daggett County obtained from: <http://utahreach.org/Daggett/visitor/about.htm>
2. Location and land ownership maps made using GIS shapefiles from the Automated Geographical Reference Center (AGRC), a Utah State Division of Information Technology. Website: <http://agrc.utah.gov/>
3. Land Use/Land Cover layer developed by the Utah Department of Water Resources. A polygon coverage containing water-related land-use for all 2003 agricultural areas of the state of Utah. Compiled from initial USGS 7.5 minute Digital Raster Graphic waterbodies, individual farming fields and associated areas are digitized from Digital Orthophotos, then surveyed for their land use, crop type, irrigation method, and associated attributes.
4. Prime and Unique farmlands derived from SURGO Soils Survey UT607 and Soil Data Viewer. Definitions of Prime and Unique farmlands from U.S. Geological Survey, http://water.usgs.gov/eap/env_guide/farmland.html#HDR5
5. Land Capability Classes derived from SURGO Soils Survey UT607 and Soil Data Viewer.
6. Tons of Soil Loss by Water Erosion data gathered from National Resource Inventory (NRI) data. 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. 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/>
7. Precipitation data was developed by the Oregon Climate Service at Oregon State University using average monthly or annual precipitation from 1960 to 1990. Publication date: 1998. Data was downloaded from the Resource Data Gateway, <http://dgateway-wb01.lighthouse.itc.nrcs.usda.gov/lighthouse>
8. Irrigated Adjudicated Water Rights obtained from the Utah Division of Water Rights.
9. Stream Flow data from http://waterdata.usgs.gov/nwis/nwisman/?site_no=09229500&agency_cd=USGS
10. Stream length data calculated using ArcMap and 100k stream data from AGRC and 303d waters from the Utah Department of Environmental Quality.
11. Watershed information from <http://oaspub.epa.gov/pls/tmdl/>
12. The 2003 noxious weed list was obtained from the State of Utah Department of Food and Agriculture. For more information contact Steve Birmingham, 801-538-7181 or visit their website at http://ag.utah.gov/plantind/noxious_weeds.html
13. Wildlife information derived from the Utah Division of Wildlife Resources' Comprehensive Wildlife Conservation Strategy (CWCS) (<http://wildlife.utah.gov/cwcs/>) and from the Utah Conservation Data Center (<http://dwrcdc.nr.utah.gov/ucdc/>).

14. County population data from the U.S. Census Bureau, Utah Quick Facts,
<http://quickfacts.census.gov/qfd/states/49000.html>

15. Farm information obtained from the National Agricultural Statistics Service, 2002 Census of Agriculture.
<http://www.nass.usda.gov/census/census02/volume1/index2.htm>