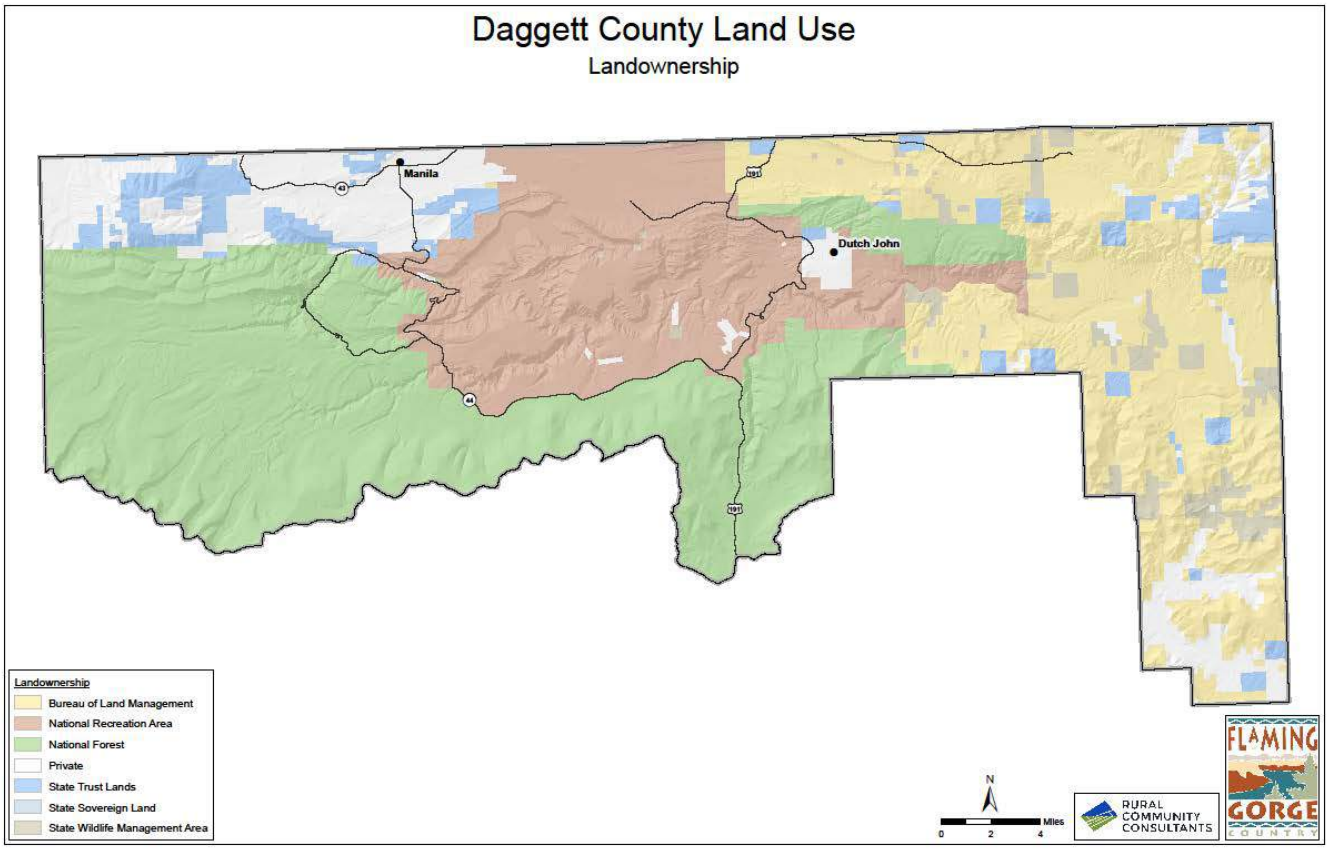
2017 Daggett County General Plan
Resource Management Plan Appendix


Daggett County Land Use
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Miles
RURAL COMMUNITY CONSULTANTS
FLAMING GORGE COUNTRY

Resource Management Plan Introduction:

Utah State Statute provides for the development of county-level plans under Title 17-27a-401. Components which are required to be addressed within these plans include: land use, transportation, environmental issues, public services and facilities, rehabilitation and redevelopment, economic concerns, recommendations for plan implementation, and "any other elements that the county considers appropriate".

In 2015, the Utah Legislature amended UCA 17-27a-401 to also require that county general plans include a "resource management plan" (RMP) to provide a basis for communicating and coordinating with the federal government on land and resource management issues.

The intent of the county's resource management plan is to:

1. establish findings pertaining to the issue;
2. establish defined objectives; and
3. outline general policies and guidelines on how the objectives described in Subsection (3)(c)(ii) are to be accomplished.

Daggett County will continue to encourage the responsible use and development of its natural resources and support associated industries and businesses. Decisions affecting public land resource use and development directly impact the County. In this regard, it is in the County's interest, and their expectation, that federal and state resource management planning efforts provide the County with every opportunity to proactively participate in all relevant public land and resource planning processes.

The resources detailed in this RMP are:

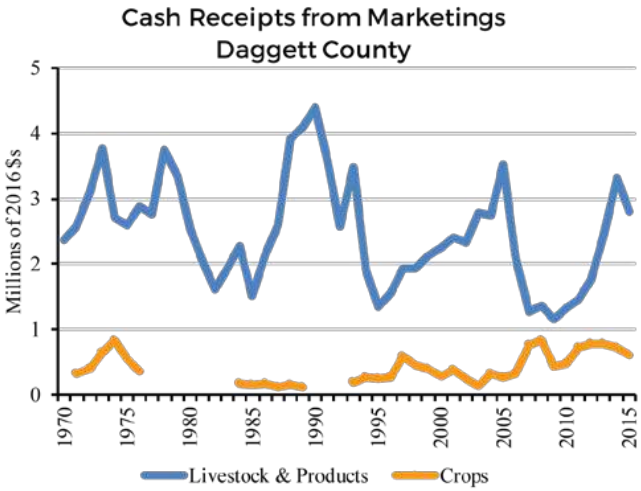
Agriculture
Air Quality
Cultural Resources
Ditches and Canals
Energy
Fire Management
Fisheries
Floodplains & River Terraces
Forest Management
Irrigation
Land Access
Land Use
Law Enforcement
Livestock and Grazing
Mineral Resources
Mining
Noxious Weeds
Predator Management
Recreation and Tourism
Riparian Areas
Threatened, Sensitive & Endangered Species
Water Quality & Hydrology
Water Rights
Wetlands
Wild & Scenic Rivers
Wilderness
Wild or Feral Horses
Wildlife

Agriculture

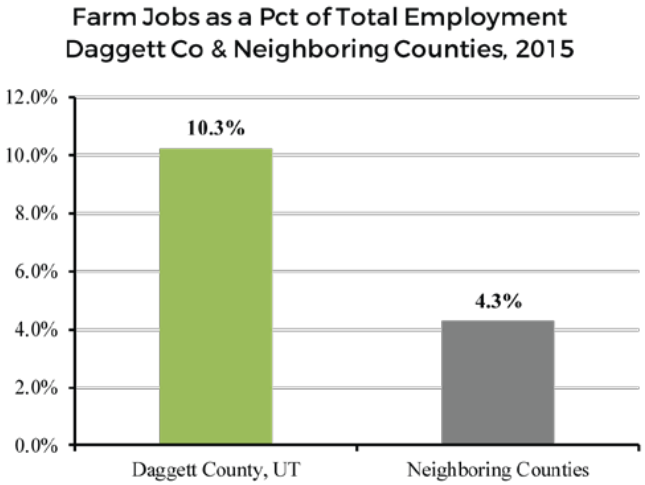
Agriculture is the cultivation of plants or animals for fiber, food, fuel, or other products.

Findings:

Agriculture in Daggett County is important for the natural, cultural, social, and economic benefits it provides. Historically, agriculture has been the lynchpin of the custom and culture of the county. In the County, agriculture provides jobs, local tax base, a variety of environmental benefits, scenic beauty, food and fiber for human consumption.



According to the USDA National Agricultural Statistics Service (2016), over 108,000 acres of land are used for planted crops in Daggett County, making up about 24% of the county's total land area. Much of this land consists of native grasses for grazing that do not require extra irrigation. The primary crops produced in Daggett County are hay, haylage, and alfalfa. The market value of crop sales in the County was just over $590,000 in 2015, accounting for about 18% of all agricultural products sold (Economic Profile System 2017). Livestock and associated products made up the remaining 82% of cash receipts (See the Livestock and Grazing section).



Although agriculture plays a significant role in the economic, environmental, and cultural well-being of the county, many farms and ranches are in jeopardy. According to the Utah Agriculture Sustainability Task Force (2012), "The number and size of farms and ranches has dramatically changed in Utah. From 1900 to 1990, the number of Utah farms decreased. Beginning in 1990 the number of farms began to increase again. The 2011 Utah Agricultural Statistics report recorded 16,600 farms." The number of farms in Daggett County increased from 48 in 2007 to 51 in 2012 according to the USDA Census of Agriculture (2012).

"Although the number of farms have increased through the 1990s, since 1997 the size of those farms has decreased. Twenty years ago, the average size of a Utah farm was approximately 200 hundred acres larger than it is today" (UDAF 2012).

"The average age of farmers continues to increase nationally and in Utah. Current farmers are aging while still working to maintain their lands. The average age of a Utah farmer is 57. Farming is losing its

successors as many children are choosing other occupations. It is more difficult now to transfer the farm to the next generation." (UDAF 2012).

In Daggett County private property owners and farm operators control this resource. Most crop farming happens on private land with little outside influence. The agency with the most influence on private land farming in the County is the Natural Resources Conservation Service. The County and municipalities have influence over land uses and zoning which will impact agriculture.

Economic Considerations:

A recent report published through Utah State University (2016) showed that agriculture contributes more than 15% of the state's total economic output. "Agriculture processing and production sectors combine to account for $21.2 billion in total economic output in Utah after adjusting for multiplier effects (compared to $15.2B in 2008)" (Ward and Salisbury 2016). In terms of employment and taxes, the study found, "A total of 79,573 jobs are agriculture related generating compensation $3.5 billion (compared to 66,500 jobs in 2008)," and that "The agriculture production and processing sectors generate $497 million in state and local taxes (compared to $350 million in 2008)" (Ward and Salisbury 2016).

Custom and Culture:

Since the 1880's when Daggett County first saw an influx of settlers, people have been relying on agriculture to support their lives and lifestyle. Two Century Farms have been designated in the county for their historical significance (UDAF, Century Farm Designation). The County considers agriculture to be part of its history, custom, and culture. This tradition is still practiced and celebrated locally.

Supporting Policies and Guidelines:

See also Objective 2.5.1
See also Objective 4.5.2
Position statements on soils (section 8.5).

Objectives:

Continue to allow access, and increase access to public lands for agricultural development in a manner that: 1) satisfies local needs and provides for economically and environmentally sound agricultural practices; and 2) is consistent with, and complementary to, the lifestyle, character, and economy of Daggett County.

Related Resources and Uses:

-Livestock & Grazing
-Water Rights
-Irrigation
-Ditches and Canals
-Noxious Weeds
-Water Quality & Hydrology
-Land Use

Air Quality

Air quality is defined as the degree to which the ambient air is pollution-free, measured by a number of indicators of pollution.

Findings:

Air pollutants are those substances present in ambient air that negatively affect human health and welfare, animal and plant life, property, and the enjoyment of life or use of property. Ambient pollutant concentrations result from interaction between meteorology and pollutant emissions. Because meteorology can't be controlled, emissions must be managed to control pollutant concentrations. Unlike other parts of Utah, the vast majority of air pollutants in the Uintah Basin originate with energy development, not vehicle emissions.

"The Clean Air Act (CAA) requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The CAA establishes two types of air quality standards: primary and secondary. Primary standards are set to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards are set to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings . . . The EPA has established health-based NAAQS for six pollutants known as criteria pollutants. These are carbon monoxide, nitrogen dioxide, ozone, particulate matter, sulfur dioxide, and lead . . . The Division of Air Quality monitors each of these criteria pollutants, as well as several non-criteria pollutants for special studies at various monitoring sites throughout the state" (UDAQ 2015).

The Clean Air Act (1970) and its amendments set the laws and regulations regarding air quality, give authority to the US Environmental Protection Agency to set standards and rules, and delegate regulatory authority to individual states with EPA oversight, provided certain standards are met. The purpose of air quality conformity regulations, enforced by the EPA and the DAQ in Utah, are to protect public health and welfare by decreasing pollutant concentrations through emissions reduction. Construction and mining projects require assessment of air quality impacts and may require an emissions permit and/or a fugitive dust control plan from the DAQ. Fines of up to $10,000 per day may be issued if rules/laws are not properly followed.

Economic Considerations:

Negative impacts from poor air quality may include healthcare costs or time away from work due to stroke, heart disease, and respiratory diseases. Impacts may also be seen in decreased tourism appeal or scenic resource perception, business or industry growth deterred, and increased operating expenses for pollution source for required pollution control measures (Stewart 2012). For these reasons, managing air quality is a priority for Daggett County.

Custom and Culture:

Daggett County values clean air and the health and *well-being* of its residents. The custom and culture is also dependent on economic development and thus the County must balance these two aspects.

Supporting Policies and Guidelines:

Position statements on air quality (Section 8.5).

Objectives:

1. Maintain or improve air quality to protect the health and well-being of county residents, and maintain or improve the desirability of the county as a place to visit and recreate.
2. Promote economic development without undue or unnecessary impacts to air quality. Air quality should be protected to prevent potential restrictions on future development.
3. Work cooperatively as full partners with other agencies and entities to identify baseline air quality for the Uintah Basin.
4. Assess the extent to which Uintah Basin air is degraded by natural phenomena and by sources outside the Uintah Basin. Work cooperatively as full partners with other agencies to establish an understanding of contributions from non-area emission sources.

Related Resources and Uses:

-Fire Management -Energy -Mining

Cultural, Historical, Geological, and Paleontological Resources

Generally speaking, this refers to human and natural resources which have intrinsic value because of their age, anthropological, heritage, scientific or other intangible significance.

"Cultural": of or relating to culture; societal concern for what is regarded as important in arts

"Historic": of, or pertaining to, history or past events

"Geological": the study of the Earth, its rocks, and their changes

"Paleontological": includes the study of non-human fossils to determine organisms' evolution and interactions with each other and their environments.

Findings:

Cultural and Historical

Cultural resources include archaeological sites, standing structures (e.g., buildings, bridges), and even places of importance that are more than 50 years of age. Many historical and cultural resources are very sensitive and protected by law; however, it is important to remember that not all cultural sites are important or significant, and that those not considered as such would not be adversely affected by any planned projects.

"The Fremont Indians were an agricultural people with a semi- sedentary lifestyle. They built dry-masonry structures and made ceramics. More so than their predecessors, they relied on flora gathered from wetlands, marshes, and streams for food and clothing ... They used the bow and arrow to hunt large animals, and excavations at the Summit Springs hunting camp reveal numerous bones of bighorn sheep. The scattered remains they left in Daggett County suggest that few of them lived north of the Uinta Mountains. Those that did were primarily at lower elevations with the vast majority of identified Fremont Indian sites located along the Green River and its tributaries" (Johnson et al. 1998).

"Spanish explorers crossed the region in the 1700s. In the 1800s, settlers from Europe and the eastern United States arrived in the area and left their mark on the landscape with their homesteads. Those who had access to the rivers and a constant flow of water survived, while others dried up with drought and moved away. Now, many of the remains of homesteads are found alongside the Indian art work of the past" (National Parks Service 2017).

"Dominating the landscape and history of the county are the Uinta Mountains, the only major east-west mountain range in North America. The Uinta Mountains are of rather recent origin, however; much of the exposed rock in the Uintas is of great antiquity—some being Precambrian metamorphic rock well over one billion years old. Some of this rock has been broken and uplifted—faulted and folded in geologic terms—in the relatively recent past, after having been buried by increasing layers of sedimentation for hundreds of millions of years" (Johnson et al. 1998).

The National Historic Preservation Act (1966) created the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation Offices (SHPO). The National Register of Historic Places, managed by the National Park Service, is the nation's official list of buildings, districts, sites, structures, and objects worthy of preservation, and are officially designated "historic properties", either archaeological or historic (National Parks Service n.d.). The State Historic Preservation Office (SHPO) and Officer was created in order to coordinate a statewide inventory of historic properties, nominate properties to the National Register, manage the statewide preservation plan, and educate and consult locals (Utah Department of Heritage & Arts 2016).

The National Register of Historic Places has listed 5 properties and districts on the National Register in the county including the Manila Petroglyphs, and historic ranches (National Register of Historic Places n.d).

The Utah Antiquities Act (UCA 9-8-404 et seq.) protects significant resources and applies to all resources that are on or eligible for inclusion in the State Register.

Building codes that meet seismic standards are controlled by the
County, and in some places the individual municipalities.

Geological

Geologic resources include fossils (paleontological resources) that are defined as the remains, traces, or imprints of ancient organisms preserved in or on the earth's crust, providing information about the history of life on earth.

Geology is another important part of planning because of the area's unique geologic features and sights, as well as to identify potential development hazards, including faults, landslides/rockfall, soil liquefaction potential, and other problem soils.

Until better data is available, the County supports the geologic map of the Dutch John 30' x 60' quadrangle, Daggett and Uintah Counties, Utah, Moffat County, Colorado, and Sweetwater County, Wyoming. Utah Geological Survey OFR 491DM, 2006 (CD).

Seismicity

"Utah straddles the boundary between the extending Basin and Range Province to the west and the relatively more stable Rocky Mountains and Colorado Plateau to the east. This boundary coincides with an area of earthquake activity called the Intermountain Seismic Belt (ISB). Utah's longest and most active fault, the Wasatch fault, lies within the ISB. Unfortunately, the heavily populated Wasatch Front (Ogden – Salt Lake City – Provo urban corridor) and the rapidly growing St. George and Cedar City areas are also within the ISB, putting most of Utah's residents at risk" (Utah Seismic Safety Commission 2008).

While Daggett County is not in the Intermountain Seismic Belt, it is still susceptible to seismic hazards such as ground shaking and liquefaction.

Mineral or energy development could be correlated to seismic activity. The spike in high-pressure fluid injection is being researched by the USGS Earthquake Hazards Program to determine if the phenomena is natural, or human-caused.

Archeological

There are several archeologically-significant areas in Daggett County. One example is that "…in the spring and summer of 2002, while conducting a field survey of paleontological resources, Utah Geological Survey paleontologists discovered a significant dinosaur tracksite at Flaming Gorge National Recreation Area.

Because of the details preserved in the sauropod and pterosaur tracks at the Flaming Gorge site, they are a very important resource to future researchers studying dinosaur behavior.

Efforts to preserve and protect the Flaming Gorge Reservoir tracksite from shoreline erosion and other environmental impacts continue. Several of the tracks have been removed and are now on display at the Utah Field House of Natural History State Park Museum in Vernal, Utah." (Utah Geological Survey 2017).

"Laws are in place to make sure that federal and state projects don't carelessly destroy cultural resources… State and federal agencies that undertake projects must "take into account" how their project activities will affect historic and archaeological resources. Common projects include construction, rehabilitation, demolition, licensing, permitting, or transfer of public lands… The State Historic Preservation Office (SHPO) provides guidance to agencies and governments who are affected by these laws" (Utah Division of State History 2016).

The Utah Antiquities Act (UCA 9-8-404 et seq.) protects significant paleontological resources and applies to all paleontological resources that are on or eligible for inclusion in the State Paleontological Register.

Findings:

The preservation of historic properties and cultural landscapes has the potential to add economic value to an economy by balancing the benefits of preservation and development. A county that is a certified local government (CLG) with a historic preservation committee can apply for federal grants and gain the tools and resources needed to integrate historic buildings into the community's social and economic fabric.

The value of cultural, historical, geological and paleontological resources is difficult to quantify. However, there is significant value to each resource for its contribution to the shaping of our current civilization, culture, economy, and lifestyle.

Earthquakes in the Wasatch Front region, along with geologic hazards, will impact the people, economy, and infrastructure of Daggett County. Roads, pipelines, power lines, water resources, telecommunications, and food systems could all be disrupted in the event of a natural disaster in Utah, southern Wyoming, or western Colorado.

Though unmeasured in the economy, the value brought to Daggett County by paleontological research and tourism is important.

Cultural, historical, geological, and paleontological resources are often connected with tourism and recreation. Historic buildings and districts provide character, a sense of stability, and a unique marketing angle for businesses; thus, community planners can draw upon local historic resources to stimulate economic development.

A study by the Utah Heritage Foundation found that, "Utah benefited by $717,811,000 in direct and indirect spending by visitors to Utah heritage sites and special events, and $35,455,268 in investment that stayed in Utah rather then sent to Washington, D.C. because of projects that utilized the Federal Rehabilitation Tax Credit" (Utah Heritage Foundation 2013).

Historic preservation in Utah is not about putting a fence around monuments. The historic resources of Utah are part of the daily lives of its citizens. However, the historic resources of Utah are also providing a broad, significant contribution to the economic health of this state (Utah Heritage Foundation 2013).

Custom and Culture:

The custom and culture of Daggett County is to respect all cultures and preserve or honor significant historical stories, figures, objects, structures, or events. It is the custom of the County and its residents to rely on the land and geology for fuel, fiber, food, and minerals. Livestock grazing, the resulting lifestyles and imprint on the landscapes of the west are some of the oldest enduring and economically important cultural and heritage resources in the west, and must be preserved and perpetuated.

Daggett County remains one of the last undeveloped and scenic frontiers in the west. It is the smallest in population and income of all the counties in Utah, though within the County lays this vast landscape of beauty and history. With around 2 million visitors a year coming to take in the rich amenities and "sense of place," the County encourages continual long range planning practices to secure the preservation of this vast landscape.

Supporting Policies and Guidelines:

Position statements on cultural and heritage resources (section 8.5).

Position statements on paleontology, archeology and geology (section 8.5).

Objectives:

1. Preserve the cultural, historical, and paleontological heritage of Daggett County and its surrounding counties.

2. Support the protection, study, and excavation of unique cultural and historical resources that occur within Daggett County, including the responsible stewardship of these resources through balancing resource protection with visitor values.
3. Provide for the protection of cultural, historical, and paleontological resources through management decisions that are based on the quality and significance of each individual resource.
4. Allow for public education, visitation opportunities, and site protection for cultural, historical, and paleontological resources (where appropriate).
5. Preserve and perpetuate the heritage and culture of Daggett County for both the Native American community and other communities.
6. Mitigate to the furthest extent possible all adverse effects to cultural, historical, and paleontological resources.

Related Resources and Uses:

-Recreation and Tourism
-Land Use
-Land Access
-Energy
-Law Enforcement
-Mining
-Mineral Resources
-Air Quality
-Water Quality & Hydrology

Ditches and Canals

A ditch or canal is a man-made depression created to divert water to a beneficial use.

Findings:

Water diversions and infrastructure are an essential component of agricultural production, and may also be relied upon for urban landscape watering and gardens.

The shift from crop irrigation to landscape irrigation can help water rights holder maintain beneficial use and avoid forfeiture of water rights.

Canal and irrigation companies are outside of Daggett County's jurisdiction but are influenced by private shareholders. Canal safety plans are protected by law and held private by the irrigation companies. The canals generally are maintained by individual canal companies and a good amount of drainage water has unrestricted access to dump into canals.

As of 2017, the largest canal companies operating within Daggett County include:

PEOPLES CANAL COMPANY
Controversies due to the price of water shares lead landowners to split from the Sheep Creek Canal Company and form the Peoples Canal Company. Construction of People's canal began in 1899, the same year the Company was incorporated and filed for appropriated water rights covering 2300 acres. The canal system was completed in 1902 and with delivery beginning in 1903. The water rights are a direct flow right diverted from Henry's Fork in Wyoming. However, the majority of acreage serviced by Peoples' is in Daggett County.

INTERSTATE IRRIGATION AND RESERVOIR COMPANY

The Interstate Irrigation & Reservoir Company was incorporated in Utah in 1916 with appropriated water rights dating 1926. The Company owns stored water rights in the Beaver Meadow Reservoir, completed in 1922, and Island Lake. Interstate's water rights originate in Summit County, the canal system runs through Daggett County and primarily services acreage in Sweetwater County, Wyoming.

GREENDALE CANAL (Greendale Water Company)
The Greendale canal was developed in the early 1900's to provide irrigation water to homesteaders in the Greendale, Utah area with water rights dating back to 1917 from multiple surface water sources.

SHEEP CREEK IRRIGATION COMPANY
Since the 1870's when Daggett County first saw an influx of families, residents been relying on irrigation to cultivate crops and sustain their lives and lifestyles. The Sheep Creek Irrigation Company (SCIC) was established in 1899 to deliver irrigation water to users along the north slope of the eastern Uinta Mountains. The SCIC system consists of 22 miles of mountain canals and provides irrigation for approximately 11,400 acres of agricultural land. (Bureau of Reclamation 2013).

Economic Considerations:

Without ditches and canals Daggett County would have very little agriculture.

Many organizations holding water rights operate on finite budgets for which regular available funding is limited. These funds typically cover only basic maintenance and intermittent minor upgrades. Occasionally, such organizations can apply for and receive funding to accommodate more extensive upgrades. Funding sources are available for water delivery systems to pay for post-break repairs, maintenance, or the capital upgrades that are necessary to preserve public safety.

Custom and Culture:

To sustain early farmers and settlers, canals and ditches were constructed throughout Utah making agriculture possible despite the semi-arid climate. Subsequent development of agriculture brought further expansion of ditches and canals. Traditionally, irrigation water has been distributed via a network of canals and ditches from rivers and streams; but with time and circumstances dictating, many have been piped. Additionally, because of the extensive conversion of agricultural lands to urban development, some irrigation water is now distributed through secondary irrigation supply lines that parallel the municipal culinary water supply allowing people to irrigate residential lawns using water previously allocated to farming.

The Desert Land Act of 1877 allowed settlers to purchase up to 640 acres of land for $1.25 per acre, provided that some irrigation structures were developed.

In 1890, Adolph Jessen noticed the agricultural possibilities of Dry Valley (now known as Lucerne Valley). He went on to create the Sheep Creek Irrigation Company, creating the 14.5-mile canal, which brought water to nearly 2,000 acres of farm land and residences (Johnson et al. 1998).

The use, upgrade, and maintenance of Utah's network of canals, ditches, and dams continues today.

Supporting Policies and Guidelines:

Position statements on water resources (section 8.5).

Objectives:

1. Continue to allow access, and increase access to public lands for canals and ditches and agricultural development in a manner that 1) satisfies local needs and provides for economical and environmentally sound water conveyance practices; and 2) is consistent with, and complementary to, Daggett County's lifestyle, culture, and economy.
2. Support special service districts and canal companies in maintaining and obtaining access through public lands for necessary water conveyance needs.
3. Improve the protection and assurance of all the rights and easements of available water sources.

Related Resources and Uses:

-Land Use
-Livestock and Grazing
-Irrigation
-Agriculture
-Water Rights
-Water Quality & Hydrology
-Wetlands
-Riparian Areas
-Fisheries
-Recreation and Tourism
-Wild & Scenic Rivers
-Wildlife
-Fire Management
-Threatened, Sensitive & Endangered Species

Energy

Energy is defined as renewable or nonrenewable resources used to obtain energy.

Findings:

Overview

"The unique geologic history, geography, and climate of Utah have resulted in an abundance of nonrenewable and renewable energy resources. Nonrenewable energy resources include fossil fuels, such as oil, coal, and natural gas, as well as naturally occurring elements, such as uranium. Renewable energy resources are those that are replenished by natural processes and include geothermal, solar, and wind energy" (Utah State University 2009).

Daggett County is included in the Uintah Basin Energy Zone, which was created in 2015 to maximize efficient and responsible development of energy and mineral resources. Utah State Legislature, Title 63J Chapter 8 states, "The state finds that the lands comprising the Uintah Basin Energy Zone contain abundant, world-class deposits of energy and mineral resources, including oil, natural gas, oil shale, oil sands, gilsonite, coal, phosphate, gold, uranium, and copper, as well as areas with high wind and solar energy potential; and the highest management priority for all lands within the Uintah Basin Energy Zone is responsible management and development of existing energy and mineral resources in order to provide long-term domestic energy and supplies for Utah and the United States."

Natural Gas

The Clay Basin Gas Field produces natural gas inside Daggett County, and also hosts the Questar Corporation's natural gas storage facility. This facility injects natural gas into depleted underground formations in the summer, and retrieves the gas in winter months for load balancing purposes across their system. Questar pays annual storage fees to the landowners for the right to store gas in the unit. There is also some conventional natural gas production from the unit (Puget Sound Energy 2013).

The most recent statistics from the Division of Oil, Gas, and Mining indicate that in 2016, Daggett County had the eighth highest amount of natural gas production in the state, at 1,138,000+ MCF. The County has the eighth largest cumulative lifetime production amount, compared to other counties at 188,108,000+ MCF (Utah Division of Oil, Gas, and Mining 2017).

"In 2012, Utah ranked as the 10th largest onshore producer of natural gas in the country. In 2012, Utah's natural gas was mostly used for home heating (nearly 33%) and by the electric utility sector (nearly 26%). Natural gas makes up approximately 44% of Utah's total produced energy resources. Natural gas also accounts for 25% of the energy consumed by Utahns. In 2012 there were estimated to be over 9,322 jobs in Utah's oil and gas industries, including direct and related support jobs of extraction, wells operations, distribution, transportation, refining, construction and manufacturing (this figure does not include induced jobs in electricity generation and other industries that exist because of natural gas production)" (Boden et al. 2014).

"Natural gas made the second-largest contribution to the value of fuel commodities produced in Utah during 2014, with an estimated value of $2.4 billion (including natural gas liquids), a $245 million (12%) increase from 2013" (Boden et al. 2014).

"Employment directly related to energy produces earning at a rate almost twice that of other jobs in the state. Energy employment generated $2.853 billion in wages in 2013. The energy sector generated state and local taxes, fees, and royalties of $656 Million in FY2013" (Utah Office of Energy Development 2014).

Oil

"Utah contains three of the 100 largest oil fields in the United States and five petroleum refineries. Currently, there are 355 million barrels of proven oil reserves in the state. Crude oil production in Utah has seen a substantial resurgence over the past 5 years with the discovery of the Covenant Field in central Utah and increased exploration and drilling in the Uinta Basin. Crude oil production increased to 21.3 million barrels in 2008, up 9.1 percent from 2007 and up 63 percent from 2003. The value of extracted crude oil in Utah for 2007 was more than $1.2 billion" (Utah State University 2009)

Oil production has fluctuated between 2012 and 2016 in Daggett County. In that time, an average of only 578 barrels of fuel was produced, compared to an average of 10.7 million barrels produced by the adjacent Uintah County. The cumulative lifetime production of oil in Daggett County is 368,900+ barrels. (Utah Division of Oil, Gas, and Mining 2017).

Oil Shale & Oil Sands

"Oil shale and tar sands are two natural resources that can be converted into petroleum products. Utah contains some of the largest deposits in the world of both of these materials. It is estimated that the United States reserves of oil shale are 1.6 trillion barrels, with Utah reserves at approximately 499 billion barrels. The United States estimate for measured reserves of tar sands is 22.6 billion barrels, with 14 to

15 billion barrels of measured reserves in Utah... These oil substitutes become more financially-viable resources as the price of traditional oil goes up" (Utah State University 2009).

"The upper Green River Formation in the Uinta Basin of Utah contains one of the largest deposits of oil shale in the world. The oil shale deposit contains an estimated in-place resource of 1.3 trillion bbls (USGS Oil Shale Assessment Team, 2011) and a potentially economic resource of 77 billion bbls (Vanden Berg, 2008). The richest Green River oil shale horizon is the Mahogany zone, where individual beds can yield 80 gallons of oil per ton of rock. The Mahogany zone is 70 to 120 feet thick and is accessible via extensive outcrops along the eastern and southern flanks of the basin" (Boden et al. 2014).

"Utah oil sands, though small compared to Canadian resources, are the largest resource in the United States. Utah oil sand deposits contain 14 to 15 billion bbls of in-place oil, and have an additional inferred resource of 23 to 28 billion bbls. Twenty-four individual deposits exist in the Uinta Basin, mainly around its periphery, and an additional 50 deposits are scattered throughout the southeastern part of the state. Utah's major oil sand deposits individually have aerial extents ranging from 20 to over 250 square miles, as many as 13 pay zones, gross thickness ranging from 10 to more than 1000 feet, and overburden thickness ranging from zero to over 500 feet" (Boden et al. 2014).

"With the current glut of conventional crude oil and the attendant low price, there is less incentive for new drilling or the employment of bitumen extraction and upgrading techniques developed in Canada to move Utah's oil sands toward successful and sustainable development in the near future. Meanwhile, factors such as site accessibility, adequate infrastructure, water availability, environmental concerns, permitting, and the problems associated with the heterogeneity of reservoir sands should continue to be researched to realize economically viable oil sand development in Utah when market conditions improve in the future" (Boden et al. 2014).

Nuclear

"Nuclear power is a source of energy derived from the fission (splitting) of atoms. It accounts for approximately 19 percent of total electricity generated in the United States. Utah neither generates nor imports power from nuclear power plants. By- products of nuclear energy are cleaner than those produced by burning fossil fuels for power (near-zero emissions of carbon dioxide, sulfur oxides, nitrogen oxides, and ash), but it does produce solid waste by-products that must be stored. While these waste products are small compared to the electricity produced, they require specific safety measures" (Utah State University 2009).

Geothermal

"Exploitable geothermal resources come from the transport of heat to the surface through several geological and hydrological processes. Geothermal resources commonly have three components: 1) a heat source, 2) relatively high permeability reservoir rock, and 3) water to transfer the heat. Numerous high temperature resources occur in the Basin and Range Province of the western United States as the result of deep circulation along major faults in a region of high heat flow. Utah has high- temperature resources that are suitable for electricity generation, as well as direct use and heat pump applications, and is one of only four states with geothermal electric power plants" (Utah State University 2009).

Other

The Utah Renewable Energy Zone Task Force (2009) did not identify any areas in Daggett County as prime locations for utility-scale solar or wind generation projects. However, many small-scale utilities such as rooftop solar panels are becoming popular. Wind and solar resource development costs have dropped dramatically in the last several years. In many places, electricity from wind and solar resources is now cost competitive with all other sources of new electricity generation, and many existing sources of generation. Due to advancements in technology, better forecasting, and better controls, wind and solar energy can be economically developed in areas not previously thought possible (Four Corners Wind Resource Center, unpublished report).

Economic Considerations:

"Currently, the output of the energy sector totals $20.9 billion when direct, indirect, and induced impacts are considered. In total, this represents 14.8 percent of the state's gross domestic product. The energy industry directly accounts for 10,673 jobs, and another 29,046 jobs are supported throughout the economy when considering indirect and induced impacts. In total, the energy industry accounts for a total of 39,719 jobs in the State of Utah" (Governor's Office of Energy Development 2014).

Daggett County's contribution to that total is a smaller, but important percentage.

Custom and Culture:

"Natural gas was discovered at Clay Basin in 1927 and has been produced commercially since 1937 when Mountain Fuel Supply Co. connected the field by pipeline to the Salt Lake City market area" (Hansen 1965).

Daggett County has always believed in multiple uses for land and feels that a diverse economy and ecosystem is stronger than one, dominating homogeneous influence.

Supporting Policies and Guidelines:

Position statements on energy and mineral resources (Section 8.5).

Objectives:

1. Ensure federal recognition of the Uintah Basin Energy Zone in Daggett, Uintah, and Duchesne Counties.
2. Maintain federal lands available for oil and gas leasing and development with standard stipulations while considering the impacts to other public land resources and uses.
3. Avoid unnecessary federal rules associated with fracking and master leasing plans.
4. Withhold county support for mineral development provisions within federal land management plans until the appropriate land management plan and environmental impact statement clearly demonstrate the following:
    - That the authorized planning agency has considered and evaluated the mineral and energy potential in all areas of the planning area as if the areas were open to mineral development under standard lease agreements.
    - That a baseline is established from which the effect of management prescriptions can be analyzed and evaluated for its impact on the area's baseline mineral and energy potential.
    - That the development provisions do not unduly restrict access to public lands for energy exploration and development.

- That the authorized planning agency has supported any closure of additional areas to mineral leasing and development or any increase of acres subject to NSO restrictions by adhering to
  - the relevant provisions of the Federal Land Policy and Management Act, 43 United States Code 1701 et seq;
  - other controlling mineral development laws; and
  - the withdrawal and reporting procedures set forth in the Federal Land Policy and Management Act, 43 United States Code 1701 et seq.
- That the authorized planning agency has evaluated whether to repeal any moratorium that may exist on the issuance of additional mining patents and oil and gas leases.

5. Support infrastructure that conveys energy resources such as pipeline development (e.g., pipeline from the Uintah Basin to existing railroads).
6. Encourage technology that would allow for the transport of crude oil.
7. Eliminate or reduce the amount of federal agency approval requirements for development to simplify and encourage investment in the area.
8. Promote renewable energy development, particularly with the potential of hydroelectricity and Flaming Gorge Dam.
9. For generating electricity for sale or for use on-site, support the development of wind and solar energy at large and small scales on public and private lands throughout the county. The county will establish policies, guidelines, and/or goals to support the development of wind and solar energy resources on public and private lands in the county.
10. Support the use of alternative fuel vehicles and fuel stations.

Related Resources and Uses:

-Mining
-Mineral Resources
-Cultural Resources
-Land Access
-Water Quality & Hydrology
-Water Rights
-Air Quality
-Land Use

Fire Management

Fire management is defined as the actions to control, extinguish, use, prevent, or influence fire for the protection or enhancement of resources as it pertains to wildlands.

Findings:

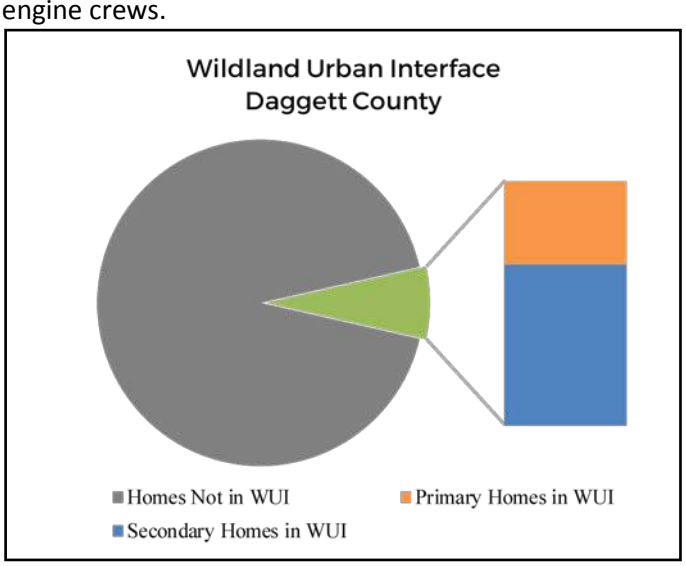
While primarily responsible for structure and accident response, city and town fire departments also provide wildland training and are often the first responders to fires in the urban-interface within incorporated municipalities. These resources are often assigned to structure protection operations.

In less developed areas at lower elevations a key management concern is the spread of cheatgrass that predominantly invades semidesert shrub communities. Cheatgrass has been blamed for much of the reduction of fire return intervals and the occurrence of larger fires (Utah State University 2009).

Response to fire incidents, especially wildland fires, relies on proper oversight, guidance, and *partnership among a variety* of trained professional organizations. Establishing a fire management system is a critical step to the protection of both urban and rural communities. Fire management refers

to the principles and actions to control, extinguish, use, or influence fire for the protection or enhancement of resources as it pertains to wildlands. It involves a multiple-objective approach strategy including ecosystem restoration, community preparedness, and wildfire response (U.S. Forest Service 2016). Response to a wildland fire can involve a basic monitoring status placed on a remote wilderness fire, or involve multiple agencies overseen by an incident-management team encompassing hundreds of firefighters to manage. Numerous personnel are trained to respond to wildfires throughout Utah and the services they provide are dependent upon the role of their organization as assigned during an incident. At a basic level, firefighting resources can be grouped into two broad categories: ground resources and air resources. Often times, both types of resources are dispatched to a fire.

There are two main firefighting groups that fall within the "ground resources" category; they include handcrews and engines. Handcrews are specifically trained to fight wildfires. Wildland engines are specially equipped fire engines, often with all-terrain capabilities, to transport water to firelines. Both handcrews and engine crews are sponsored by federal land management agencies such as the Forest Service, BLM, National Park Service, US Fish and Wildlife Service, and the US Bureau of Indian Affairs. In addition to having access to federal crews, the State of Utah trains and provides both handcrews and engine crews.



In Utah, the state legislature tasked the Utah Division of Forestry, Fire, and State Lands to devise a comprehensive statewide wildland fire prevention, preparedness, and suppression policy, which is now known as SB-56, 2015. Under this plan, a master cooperative wildland fire management and Stafford Act response agreement is signed each year between numerous federal land management agencies and the State of Utah for cooperation during wildland fire incidents that occur throughout the state (Utah Division of Forestry, Fire, & State Lands 2013).

Economic Considerations:

Fire suppression is expensive to taxpayers. In the past 30 years, money spent by federal agencies nationwide on firefighting has increased from $2.5 million in 1985 to well over $2 billion in 2015 (National Interagency Fire Center 2015). With climate change and expected increase in temperatures and drought periods, fires suppression costs are projected to rise. In Utah, fire suppression costs averaged $33.4 million per year during the 10-year period of 2003–2012 (University of Utah, Bureau of Economic and Business Research 2014). One area of major concern is the wildland-urban interface. As development in this interface continues, firefighting costs will increase (Utah Division of Forestry, Fire, & State Lands 2013).

Wildfires come with serious costs; the cost of fire suppression is only a fraction of the true, total costs associated with a wildfire event. Some of the costs associated with wildfire suppression include the direct costs (resources lost and structures burned), rehabilitation costs (post-fire floods and land restoration), indirect costs (lost sales and county taxes), and additional costs (loss of life and damage to air quality). A synthesis of case studies reveals a range of total wildfire costs anywhere from 2 to 30 times greater than the reported suppression costs (Western Forestry Leadership Coalition 2009).

Custom and Culture:

Firefighting and management is, and always has been, important to citizens in Daggett County. Proper fire prevention, management, and mitigation is critical to protecting the health, safety, welfare of the County and its residents. As evidenced in historic photos, people in Daggett County have been training and preparing for structure and wildland fires for decades.

Supporting Policies and Guidelines:

Position statements on timber (Section 8.5).
See also Objective 6.7.1 (Policy 3).

Objectives:

1. Manage forest resources to reduce the risk of catastrophic fires, which cause unacceptable harm to resources and assets valued by society, including ecosystem and community health and resilience. In most cases, fires reach catastrophic levels largely as the result of human intervention, or lack thereof, on the land. Catastrophic wildfires are more intense than natural fires and kill practically all vegetation within the fire perimeter. They can also sterilize soils, resulting in difficult regeneration and depositions of ash and sediments in waterways. Catastrophic wildfires also have a higher probability of threatening private property and public infrastructure, and they can adversely affect public health and safety.
2. Seek opportunities to use and harvest forest products that have been affected by wildfire or pests.

Related Resources and Uses:

-Recreation and Tourism
-Land Use
-Land Access
-Energy
-Law Enforcement
-Air Quality
-Floodplains & River Terraces
-Water Quality & Hydrology
-Wildlife
-Noxious Weeds
-Forest Management

Fisheries

Fisheries are defined as the places where fish breed and live, or where people hunt for fish. The term also includes game and nongame fish species.

Findings:

Overview

Statewide, Utah's current fish and wildlife resource is highly diverse. Approximately 647 vertebrate species inhabit the state; of these, 381 are considered permanent residents, including 78 species of fish (Powell 1994).

Federally Protected Species

Federally protected fish species for the region include humpback chub, Colorado pikeminnow, bonytail chub, and razorback sucker. Rare fish species and those subject to federal listing under the Endangered Species Act (ESA) are referenced more fully in the Threatened, Endangered, and Sensitive Species section.

Sport Fishing

Sport or recreational fishing is an important part of the outdoor recreation industry. The Utah Division of Wildlife Resources (UDWR) is responsible for managing fisheries in Utah with the primary goal of providing quality recreational fishing opportunities (Utah Division of Wildlife Resources n.d.). Assisting the UDWR in decision making and establishing management priorities are five Regional Advisory Councils (RACs) who provide local input on fisheries-related issues.

Rivers, lakes, and reservoirs that provide exceptional angling experiences are given Blue Ribbon Fisheries (BRF) status. There are 14 Blue Ribbon Fisheries in Daggett County within Flaming Gorge Reservoir, and along stretches of the Green River. These fisheries can be a point of promotion to attract recreational anglers (Blue Ribbon Fisheries Advisory Council 2009).

"Flaming Gorge has been rated as providing some of the best fishing in North America. The Green River below the dam is a world-class Blue Rib-bon Fishery. At one seven-mile stretch below the dam there are 11,000 to 15,000 fish per mile. This is a major fly fishing spot. Rainbow and cut-throat trout are very numerous in the reservoir and the river below. Trophy lake trout can be caught there, as well as Kokannee salmon, brown trout, small mouth bass, channel catfish, and burbot" (Daggett Conservation District 2012).

In Utah, sport fish species are usually grouped into 1) cold water species, which typically include whitefish, trout, char, and salmon; and 2) warm water-cool water species, which include sportfish such as bass, pike, walleye, perch, catfish, bluegill, and crappie. In general, sport fishing for these species is not permitted.

UDWR stocks fish in many waters around the state. Utah's system of state fish hatcheries makes it possible to supply more people with a better quality fishing experience involving higher catch rates and/or larger fish specimens than would otherwise be possible given the capacity of our waters to produce fish and the population's demand for fishing opportunities.

Aquatic Invasive Species

Aquatic Invasive Species (AIS), also referred to as Aquatic Nuisance Species, are defined by the UDWR as nonnative species of aquatic plants and animals that cause harm to natural systems and/or human infrastructure. Not all nonnative fish species are considered AIS, such as those that are desirable for sport fishing. These may include nonnative Rainbow Trout, Largemouth Bass, and catfish (Utah Division of Wildlife Resources 2009a).

Invasive mussels in Utah waters have no natural competitors, so once they are established, they spread quickly, colonizing nearly any and all underwater surfaces. They are currently impossible to remove from contaminated waterbodies and are easily spread to other waterbodies. The mussels can clog water transmission and power generation infrastructure, harm water-based recreational equipment, and outcompete both native and nonnative game species for nutrients. All these impacts can have profound impacts on sportfish populations (Utah Division of Wildlife Resources 2009).

Invasive quagga and zebra mussels are a major threat to the quality of life in the county. They are small, clam-like creatures that reproduce rap-idly and deplete nutrients in the water. As such, they jeopardize power and water infrastructures, damage ecosystems, and destroy recreation (Daggett Conservation District 2012).

Preventing the spread of AIS is currently the most effective management action. The UDWR has a statewide system of boat cleaning/decontamination stations, inspection check-points, and angler education efforts.

The UDWR is responsible for managing fisheries in Utah. Fish habitats (that is the state's streams, rivers, lakes, ponds, and reservoirs) are managed by the underlying landowner, which can include state and federal agencies (Utah Division of Wildlife Resources n.d.).

Economic Considerations:

"Recreational fishing provides a significant economic impact to the Utah economy and economic benefit to anglers" (Kim and Jakus 2013).

"Economic impacts or contributions are based on anglers' expenditures associated with the fishing trips. Expenditures affect the local and regional economy through the interrelationships among different sectors of the economy. Input-output (IO) analysis of expenditure patterns traces the effects 'upstream' and 'downstream' through the economy, resulting in the multiplier effects. The angler survey, conducted in the months of March, April and May of 2012, revealed that a typical angler spent $84 per trip on a fishing trip in Utah in 2011. Average expenditure to visit a BRF was estimated to be $90 per trip" (Kim and Jakus 2013).

Fishing also provides economic benefits and employment opportunities for local residents through the operation of outfitter and guide businesses and destination hunting and fishing resorts.

Fishing of over 78 species in Utah represents a significant sector of Utah's tourism economy. Almost $400 million was spent in association with fishing, hunting, and wildlife appreciation activities in 1985 (Powell 1994).

Custom and Culture:

Recreational fishing has been part of the local custom and culture for more than one hundred years. Individual stories as related below are representative of the regional outdoor pastime: fishing.
Hunting and fishing may be viewed as recreational in today's society, but in the early days of settlement along the Green River they were also necessities of survival. [Early] settlers found fish plentiful in the Green River, especially "large white fish," and early communities even made sport of annual seining parties along the river.

"The Central Utah Project and other reclamation projects created many reservoirs in Utah. These flatwater areas provide for a variety of water-related recreation opportunities including fishing. Most reservoir fisheries are heavily used and not able to sustain themselves through natural recruitment, requiring management programs dependent on stocking hatchery-reared fish. Fish stocking demands in

Utah for reclamation projects have been met in the past through both State and Federal hatcheries" (Utah Reclamation Mitigation and Conservation Commission n.d.).

Objectives:

1. Maintain, enhance, and expand sport fishing opportunities.
2. Protect and preserve water quality and fish habitat while balancing the needs of other water users, including those holding water rights.
3. Enhance public access to fishing opportunities.
4. Support all measures designed to prevent the spread of invasive species or diseases that negatively affect fish populations.
5. Support economic development associated with fishing, including private businesses and facilities.

Related Resources and Uses:

-Ditches and Canals
-Irrigation
-Floodplains & River Terraces
-Riparian Areas
-Water Quality & Hydrology
-Water Rights
-Wetlands
-Wild & Scenic Rivers
-Wildlife
-Recreation and Tourism

Floodplains and River Terraces

A floodplain is the low-lying area near a river, stream, or drainage which floods when the water level reaches flood stage. A river terrace is the bench or step that extends along the side of a valley and represents a former floodplain.

Findings:

Rivers are dynamic systems. River channels can migrate laterally as a result of bank erosion and deposition, and vertically as a result of bed aggradation or degradation. Floodplains, terraces, and other features are formed by these processes, and are therefore part of the river system.

When a river channel reaches its maximum capacity, often during times of heavy rain or snow melt, water overflows the river's stream-banks and floods into nearby areas that would otherwise remain dry land. This is especially true when water is delivered at a rate faster than the associated soils can absorb. Floods also occur when a bank or dam gives way and large amounts of water are released. Under most circumstances, flooding is a natural process. Floodplains support rich ecosystems, in quantity and biodiversity. Nevertheless, floods can cause severe human impacts and therefore must be among resource planning considerations. Worldwide, floods are the leading cause of natural disaster deaths.

Flooding most often occurs from two distinct event types: (1) spring runoff from melting snowpack at high elevations (both local and regional), and (2) summer rainstorms (Hylland and Mulvey 2003). While either event can trigger flooding, the dynamics of each are different. Snowmelt is a relatively predictable occurrence dependent on the amounts of winter snowpack and rising spring temperatures. Snowpack melting in spring contributes to some localized flooding, but more commonly flooding happens along the region's larger rivers. In contrast, summer cloudburst events cause sporadic flooding events on

otherwise dry washes. Both kinds of events can have impacts on the communities within the area (Wasatch Front Regional Council 2003).

At the federal level, the Federal Emergency Management Agency (FEMA) provides flood data that classifies areas based on their different flood hazards through the National Flood Hazard Layer (NFHL) and National Flood Insurance Program (NFIP). This enables elected officials, emergency responders, and the public to be informed and to reduce, or avoid altogether, impacts from floods, guide development, and reduce risk of floods.

Best floodplain and river terrace management practices typically focus on avoiding structures and other development within these dynamic and sensitive areas. For flood hazards in these areas, officials often resort to designating setbacks between potential floodplains and the built environment.

Flooding on the Green River is sometimes controlled at the discretion of the dam operators. According to the Automated Geographic Reference Center, there are eight dams within Daggett County.

Economic Considerations:

Higher development costs to mitigate flood risks are the major economic consideration for floodplains. Flood-control costs may be passed on to municipal and county governments during emergencies. Another economic consideration is the cost of floodplain insurance to homeowners. Floods also have the potential to cause severe financial impacts in the form of damages to structures, transportation systems, and other infrastructure.

Custom and Culture:

Preventing floods and mitigating natural disasters has always been a priority for landowners in Daggett County. Neighbors help neighbors when these disasters occur. The custom and culture of the area is to be responsible about structure and infrastructure placement, and respect the inevitable changes in flowing water.

Objectives:

1. Restore floodplain connectivity for threatened and endangered species that rely on these locations in areas outside human habitation while preserving the health and safety of residents.
2. Restore floodplain connectivity for improved flood control in suitable areas.
3. Support Utah Division of Water Rights Dam Safety Program that assesses existing dam condition to prevent dam failure or uncontrolled release of water.

Related Resources and Uses:

-Fire Management
-Livestock and Grazing
-Land Use
-Noxious Weeds
-Fisheries
-Wildlife
-Water Quality & Hydrology
-Wetlands
-Wild & Scenic Rivers
-Ditches and Canals
-Irrigation
-Riparian Areas
-Recreation and Tourism
-Agriculture

Forest Management

Forest management is defined as the actions for the regeneration, use, and conservation of forests.

Findings:

Utah forests are as diverse as the landscape itself. Over 15.1 million acres of forests are administered by federal, state, and local agencies. Another 3 million acres are privately owned (Utah Division of Forestry, Fire & State Lands 2014).

"Forest lands represent a large portion of Daggett County and are a key component of watershed health. Beetles, and the dead trees resulting from their presence, continue to be a major concern for the county. Approximately 55% of Daggett County is part of the Ashley National Forest, which means that over 245,000 acres of Daggett County is managed by the Forest Service. Daggett County residents are concerned about additional land being declared as wilderness and already designated land becoming more restricted" (Daggett Conservation District 2012).

"From an elevational gradient, the lowest species of forested land consists mainly of pinyon pine and juniper. This type of forest encompasses a majority of the landscape. Recently, there have been attacks on pinyon pine from the pinyon engraver beetle. With continued above normal precipitation, the pinyon pine forests are recovering from past drought and should be able to more effectively fight the attack of the pinyon beetle" (Daggett Conservation District 2012).

"Moving higher in elevation, the Douglas-fir is another dominant species found on the landscape. Over the past several years, the Douglas-fir beetle has taken a devastated forests, creating significant mortality rates. Field observations are showing a decrease in beetle populations and attack. This could likely be attributed to the increased precipitation amount the area has received over the past two years" (Daggett Conservation District 2012).

"Other species which can be found at mid-elevations (8,000 to 9,500 feet) are white fir, ponderosa pine, limber pine, and lodgepole pine. These species are not as pronounced, but they still serve as important habitat for wildlife and provide a diversity of tree species within the area" (Daggett Conservation District 2012).

"The highest elevation species found in the area are Englemann spruce and Subalpine fir. Currently, the spruce beetle is moving further north, and some areas of spruce are experiencing high mortality rates" (Daggett Conservation District 2012).

"Quaking aspen can be found from low elevations to high elevations. The health of aspen depends on stand age, disease, and recruitment of aspen and aspen suckers in the understory. Much of the aspen in the western United States is being overrun by the encroachment of an understory conifer. The decrease of aspen is associated with the lack of natural disturbances, like wildfire. Blue spruce is another species which can be found mainly in riparian areas or areas with moist rich soil types" (Daggett Conservation District 2012).

"Management practices (silviculture) can be a significant source of phosphorus and sediments in water bodies. Major wildfires and beetle infestation can lead to increased erosion in the watershed, due to land disturbance and increased lack of ground cover. Forest management practices should include re-vegetating disturbed areas, erosion prevention by timber harvesting activities, stream channel

protection, and riparian area designation. Forest health is an important key to overall watershed health and plays an essential role in the lifestyle and economics of residents and those that use Daggett County for recreational purposes" (Daggett Conservation District 2012).

Several factors have contributed to the decline in forest health including a decline in historic logging, grazing patterns, fire exclusion, and invasive or noxious weeds. Drought conditions can negatively affect forest health causing detrimental changes in vegetative conditions, especially if combined with these other management practices (Utah Division of Forestry, Fire & State Lands 2014).

Proper forest management techniques, such as grazing and selective harvest/thinning projects, create healthier forests that are more resistant to insect damage and less likely to contain fuel loads that can result in catastrophic wildfire.

"About 5.2 million acres, or 25 percent, of northern Utah is forested. Fifty-two percent of this forest area is capable of producing commercial wood products and is classified as timberland. Forty-eight percent is classified as woodland, primarily pinyon-juniper. The predominant forest types on the timberland are aspen, Douglas-fir, lodgepole pine, and spruce- fir. The National Forest System manages 70 percent of the timberland; 23 percent is under private ownership, and 7 percent is under other public ownership (local, State, and other Federal). Thirteen percent of the timberland is withdrawn from commercial timber production and is in a reserved status. Most reserved timberland is found under National Forest System management. The total volume of growing stock on nonreserved timberland in northern Utah is 3.4 billion cubic feet. In order, Douglas- fir, lodgepole pine, aspen, Engelmann spruce, and subalpine fir species account for most of the volume. Net annual growth averages 38.6 million cubic feet after the impact of mortality, which averaged 47.9 million cubic feet annually" (Brown and O'Brien 1997).

The National Forest administers lands within its jurisdiction including the Ashley National Forest. Forestry, Fire, and State Lands manages state lands and forests in Utah, while Utah State University contributes forestry research and the developing best practices for private landowners.

Economic Considerations:

Visitors from around the world, together with Utah locals, enjoy Utah's renowned forests that span from Canyonlands to the alpine zone. While Utah is only 29% forested, these forests have high scenic, recreation, wildlife and other forest use values that make forest health very important (Utah Division of Forestry, Fire & State Lands 2014).

The market for forest products is small in Utah, but it does exist. Forest products may be sold by board feet, by volume, or by piecemeal depending upon the product and the buyer. A professional forester can assist the seller in choosing the correct unit of measure and in determining value of the product.

The non-extractive products and benefits that come from Utah's forests, such as recreation, water quality, wildlife habitat, and aesthetics are valuable. These contribute to the quality of life in Utah and should be considered valuable.

Custom and Culture:

It is the custom and culture of Daggett County to use and manage landscapes and resources, including forests, for multiple uses. Logging has been a part of the custom and culture of the County.

Livestock and grazing in forests has always been part of the tradition of Daggett County. To continue the overall agriculture industry in the region requires the use and good stewardship of forests in Daggett County.

Supporting Policies and Guidelines:

Position statements on timber (Section 8.5).

Objectives:

1. Use active and adaptive forest management to improve forest health and support multiple use and sustained yield with emphasis on employment, forest products, open space, wildlife habitat, forage, recreation, and other social and economic benefits.
2. Manage forest resources to reduce the risk of catastrophic fires, which cause unacceptable harm to resources and assets valued the County, including ecosystem and community health and resilience.
3. Encourage and support the expansion of the local forest product market at sustainable harvest levels.
4. Develop new markets for timber and forestry products that are available for harvest (e.g., use timber products for bracing in nearby coal mines or biofuels industry).
5. When sustainable and based on scientific knowledge and local data, increase grazing to historic levels (allotments, AUMs, or seasonal use) to reduce fuel loads, support local economies, and support rural lifestyles for county residents.
6. Manage forest watersheds for optimal yield without compromising other resources.
7. Seek opportunities to use and harvest forest products that have been affected by wildfire or pests (e.g., beetle).
8. Reduce time required for National Environmental Policy Act processes associated with timber harvests so that economic benefits can be maximized.

Related Resources and Uses:

-Fire Management
-Livestock and Grazing
-Noxious Weeds
-Wildlife
-Wilderness
-Water Quality & Hydrology
-Recreation and Tourism
-Agriculture

Irrigation

Irrigation is the process in which water is supplied to plants at intervals for agriculture.

Findings:

Irrigation is the practice of supplemental application of water to land (beyond that water which is directly received by the land from naturally occurring precipitation) for the purpose of increasing the agricultural output of cropland and to sustain additional vegetation growth throughout the landscape. Much of Utah's agriculture would not be possible if not for irrigation. Utah's arid climate provides

limited and frequently unreliable annual rainfalls. Many of the canals and ditches remain open, but over time many have been lined or piped to improve operational efficiency.

Dams, canals, and pipelines are constructed to take advantage of the topography of each watershed and redistribute water from rivers and streams outward to lower elevation lands, which are more suitable for crop production.

Within each watershed, various entities or individuals have legal claims (i.e., water rights) to use the water for "beneficial use" and are permitted to divert waters from streams into the storage dams, canals, and pipelines. The distribution of water is governed by state law and is based largely on geographic proximity, available supply, and ownership of the water rights.

"In the state's more urban basins, agricultural water is being converted to municipal and industrial (M&I) use with increasing regularity. …. So far, municipal and industrial water supplies have been more than adequate to meet the basin population growth. Consequently, there has not been any pressure from the demand side to convert agricultural water to M&I use. Additionally, the basin's slow population growth has not caused much agricultural land to be converted to municipal, commercial or industrial uses. While current water supplies for the oil shale and tar sands industries are adequate, it is possible that future expansion of those industries will require commercial water suppliers to provide water. Moreover, those future needs may compete with other uses, primarily agriculture, for water that is available in the basin. It may end up that some agricultural water use will be converted to industrial use simply based on competition between water users. These would be market-based transfers between a willing buyer and a willing seller" (Utah Division of Water Resources 2016).

Flaming Gorge Reservoir, constructed by the Bureau of Reclamation in 1964, provides water storage, power generation and recreation. Strawberry, Starvation, Currant Creek, Upper Stillwater, Steinaker, Bottle Hollow and Red Fleet reservoirs are Central Utah Project (CUP) reservoirs that provide storage for municipal, industrial, agricultural and recreational water uses (Utah Division of Water Resources 2016).

To date the development of groundwater resources in the Uintah Basin has been relatively minor. This is due to the following reasons: (1) Existing surface water sources have been adequate to meet the demands imposed for irrigation and (municipal and industrial) needs; (2) the consolidated aquifers, generally have hydraulic properties that preclude large-scale groundwater development; (3) the quality of the groundwater in some parts of the basin is unsuitable for domestic, municipal, or agricultural use; and (4) the economics of drilling and pumping water from deep aquifers is prohibitive (Utah Division of Water Resources 2016).

Irrigation in Daggett County is controlled by irrigation companies and shareholders. "Sheep Creek Irrigation, Peoples Canal, and Interstate are the three irrigation companies that provide water to approximately 11,000 acres in Daggett County" (Daggett Conservation District 2012).

The 1997 Census of Agriculture indicated Daggett County had 11,339 acres in cropland of which 3,979 acres were harvested and 8,182 were irrigated. Irrigation water sources include a number of Uintah Mountain-based streams (USU 2005). More recent data has shown a decline in irrigated cropland. Data from the USDA Farm Service Agency (2016) showed 2,331 acres of irrigated cropland.

Economic Considerations:

Without irrigation the agriculture in Daggett County would be almost nonexistent.

Custom and Culture:

Since the 1870's when Daggett County first saw an influx of families, residents been relying on irrigation to cultivate crops and sustain their lives and lifestyles. "The Sheep Creek Irrigation Company (SCIC) was established in 1899 to deliver irrigation water to users along the north slope of the eastern Uinta Mountains. The SCIC system consists of 22 miles of mountain canals from Tamarack, Jessen, Daggett, and Spirit Lakes, to the Long Park Reservoir, located within the Ashley National Forest. Constructed in 1979, Long Park Reservoir has a storage capacity of 14,000 acre feet and has been recently upgraded to meet U.S. Forest Service standards. The SCIC System consists of the Sheep Creek Canal and six main canal laterals: the Nebeker Lateral, the Antelope Lateral, the South Valley Lateral, the Cedar Hollow Lateral, and the "Wash"/Birch Springs System. There are approximately 110 miles of canals and laterals in the valley that deliver water to individual stockholders. Water from the SCIC system irrigates approximately 11,400 acres of agricultural land" (Bureau of Reclamation 2013).

The use, upgrade, and maintenance of Utah's network of canals, ditches, and dams continues today.

Supporting Policies and Guidelines:

Position statements on Water Resources (Section 8.5).

Objectives:

1. Collect sufficient revenue to keep their systems in good and proper operating condition.
2. Set aside revenue to pay for at least part of costly future improvements and new water developments.
3. Prepare long-term water plans that address how to meet future water needs.
4. Prepare water conservation plans to reduce their future water resource demands.

Related Resources and Uses:

-Land Use
-Agriculture
-Water Quality & Hydrology
-Wilderness
-Water Rights
-Forest Management
-Predator Management
-Noxious Weeds
-Ditches and Canals

Land Access

Land access is defined as access to public and private lands.

Findings:

Overview

The Daggett County land ownership pattern is largely public lands with state land and private parcels within. Concerns arise where users once had access but now do not, or where land owned by an entity is surrounded by or accessible only by crossing land owned by a different entity.

Access to land for recreational, industrial, grazing, commercial and personal uses are all important. Motorized and non-motorized vehicle access, as well as pedestrian and equestrian access is an issue on and between, private, State, and federal lands.

R.S. 2477 Roads

In 1866 the Revised Statute 2477 (commonly known as RS 2477) was enacted by the United States Congress. This revised statute encouraged the development of a highway network to facilitate western settlement. This formerly self-executed statute did not require a record of the roadway. Under the Federal Land Policy and Management Act (FLPMA) RS 2477 was repealed in 1976 subject to "valid existing rights".

"Utah has spent more than a decade negotiating in good faith with the federal government to settle its claims to these roads. Unfortunately, the negotiations were not successful. The United States' position now is that Utah has to prove its title to R.S. 2477 roads in federal court. The federal government refuses to recognize or allow Utah to use any other avenues. In 2012, the Utah Attorney General's Office filed 22 lawsuits in the federal court claiming title to R.S. 2477 rights-of-way. Utah and each county asked the court to rule that the claimed R.S. 2477 rights- of-way are valid because they existed prior to 1976 and have been open to public use and maintained by the counties. Utah must show continuous public use of each claimed right-of-way for a period of at least ten years before October 21, 1976, the effective date of FLPMA. For the rights-of-way claimed within National Parks or National Monuments established before 1976, the state must show ten years of public use before the date of the park or monument creation" (Utah Office of the Attorney General 2014).

"The uncertainty surrounding R.S. 2477 rights-of-way continues today and has implications for a wide range of entities, including Interior and other federal agencies as well as state and local governments who assert title to R.S. 2477 rights-of-way, and those who favor or oppose continued use of these rights-of-way" (Department of Interior 2010).

Best Management Practices (BMPs)

1. Gaining or maintaining access to lands is typically accomplished through right-of-way (ROW) acquisition. The process for obtaining a right-of-way is different for each land owner or management agency as each has unique administrative procedures and objectives.

2. US Bureau of Land Management (BLM): The BLM manages ROWs through resource management plans authorized by the Federal Lands Policy and Management Act (FLPMA) established in 1976 (Department of the Interior 2001). Prior to FLMPA, ROWs on BLM lands were enabled by Revised Statute 2477 (Section 8 of the Mining Act of 1866) and are generally considered to be available for accessing property within and across US Bureau of Land Management (BLM) property, though this is not always the case. The Vernal Field Office manages the BLM land within Daggett County.

3. US Forest Service Roads (USFS): Right of ways on USFS lands are managed through the Forest Planning and National Environmental Policy Act (NEPA) processes.

4. State of Utah School and Institutional Trust Lands Administration (SITLA): SITLA is mandated by state law to maximize financial gain from their properties through sale, lease, or exchange (Utah Administrative Code Title R850). Originally allocated to western states upon statehood by the federal government to

support state institutions like schools and hospitals. Utah was given sections 2, 16, 32, and 36 in each township. The resulting checkerboard pattern of ownership means many SITLA parcels are surrounded by public lands with limited access. Land transfers are a solution to this situation. SITLA has a successful track record of working with the BLM, US Forest Service, and private land holders to enable mutually beneficial consolidations of property. (The US is required to provide access to SITLA parcels under the holding of the Cotter case: State of Utah v. Andrus, 486 F. Supp. 995 (D. Utah 1979)).

5. Private Property: Counties can establish new ROWs through private lands in three ways. First, for developing lands, counties can identify ROWs on the transportation component of the General Plan. With ROW's identified, counties can work with developers to construct ROWs as the land develops over time. Second, counties can work with willing landowners to negotiate a mutually beneficial solution to purchase a public ROW or easement across property. Finally, in cases where landowners do not want a public ROW or easement across their property, counties can use eminent domain to condemn private property. State law enables the right of eminent domain for roadways for public vehicles but not for recreational uses (78B-6-501 (3)(f)).

   The County's role is to acquire and maintain ROWs or easements across property. The County may also acquire and enforce access by participating in planning processes of federal and state agencies and via litigation.

   The land owner or manager generally controls land access. Some outside entities may influence access of lands that they do not control.

Economic Considerations:

Daggett County's economy is closely tied to accessing public lands for resource development and recreation. Physical access via roadways, especially for motorized vehicles, is required for the development and utilization of energy, mineral, recreation areas, or other resources. Of special concern are state inholdings managed by SITLA, and private lands surrounded by BLM properties.

Custom and Culture:

It is the custom and culture of Daggett County to support and protect private property rights, including access to public and private lands. Historically, and today, Daggett County feels strongly that state and federal landscape and amenities should be accessible by multiple modes of transportation, be inclusive to all persons, including those with disabilities and follow relevant accessibility guidelines.

Supporting Policies and Guidelines:

Position statements on public access and transportation (Section 8.5).

See also Objective 6.4.1.

General Goals for the Plan (Section 1.5), community character goals.

Objectives:

The county supports providing opportunities for a range of motorized recreation experiences on public lands while protecting resources and minimizing conflicts among various users. This resource protection should be done by local governments who are better equipped to provide management.

Any fire, military, emergency, or law enforcement vehicle being used for emergency or administrative purposes must continue to be exempt from OHV decisions.

Related Resources and Uses:

-Recreation and Tourism
-Land Use
-Livestock and Grazing
-Energy
-Law Enforcement
-Fire Management

Land Use

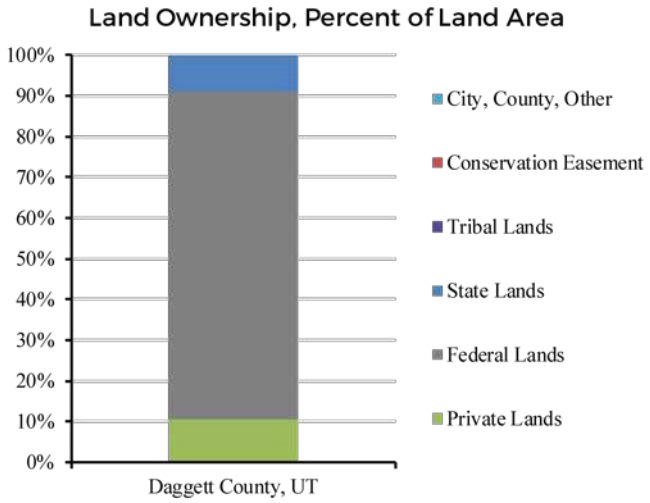
The purpose of this section is to outline the legal frameworks and county's positions associated with resource management planning and public lands issues.

This section of Daggett County's Resource Management Plan is intended to provide a broad outline of the parameters for influence and should not be considered an exhaustive dissertation of all possibilities.

Findings:

Overview

The majority of Daggett County includes vast areas of "public" lands. These lands and the associated resources are managed by federal agencies including the U.S. Forest Service (USFS), Bureau of Land Management (BLM), Bureau of Reclamation (BOR), U.S. Fish and Wildlife Service (FWS), and National Park Service (NPS). Traditionally, the residents of Daggett County have used public lands and resources for economic growth and stability. These local associations with, and dependence on, public lands continues today. Specifically, local use of public lands and resources include, but are not limited to minerals, recreation, oil and gas, timber, water, agriculture, fisheries and wildlife.



"Nearly 90% of the lands in Daggett County are owned and managed by state and federal agencies. The remaining 11% of privately owned land in Daggett County has nearly 44,000 acres (90%) set aside for agricultural purposes. These agricultural producers also rely heavily on federal and state lands for grazing of their livestock. The Ashley National Forest has a combined ownership between the Flaming Gorge National Recreation Area, the Flaming Gorge Ranger District and a small piece of the Vernal Ranger District of 235,299 acres or 54.7% of the lands within Daggett County" (Daggett County 2008).

Due to the dependence of Daggett County on public lands and resources, decisions made by public land management agencies directly impact local interests and the County's economy. Over the last several

decades, Daggett has attempted to improve relationships with federal land managers and participation in agency planning and decision-making processes. These efforts have had mixed results.

The Resource Management Plans (RMPs) developed by the BLM and the USFS Land and Resource Management Plans (LRMPs) are the basis for nearly all natural resource management policy and decision-making activities that affect federal lands. Because the Federal Land Policy and Management Act (FLPMA) mandates that these RMPs are to be consistent with state and local plans "to the maximum extent…consistent with federal law…," it is essential that counties develop their own resource management plans to reflect local perspectives and positions regarding these interests.

Control and Influence

Private Property: Private lands are regulated by land use ordinances and zoning districts, as approved by local and county governments. Zoning districts, and the regulations established within the zoning districts, are authorized by Utah Code §17-27a-505 and municipalities §10-9a-505. Land use ordinance and zoning maps are legislative decisions and are established through planning processes open to public discussion and adopted by county and city councils.

Daggett County: Utah Code §17-27a-401 requires counties to create a general plan that includes findings, objectives, and policy statements for the resources within its boundaries. It also allows Daggett County to "define the county's local customs, local culture, and the components necessary for the county's economic stability."

US Bureau of Land Management (BLM): The Vernal Field Office is located in the northeast corner of Utah and administers lands within Daggett, Duchesne and Uintah Counties, plus a small portion of Grand County. Land use decisions for all BLM lands are made according to mandates defined by the Federal Land Policy and Management Act (FLPMA) of 1976. FLPMA requires the BLM to manage lands under multiple-use philosophy. A component of FLPMA is the requirement for an open and public land use planning process in the development of resource management plans (RMP). Each BLM Field Office must develop an RMP to guide future land use activities on public lands. The RMP defines goals, objectives, and rules for commercial and extractives industries, transportation, recreation, and conservation. To complete an RMP, the BLM follows planning procedures outlined in the National Environmental Policy Act (NEPA).

US Forest Service (USFS): The US Forest Service (USFS) manages land use decisions by developing forest plans under the National Forest Management Act of 1976 (P.L. 94-588). Forest plans provide strategic direction for management of all resources on a National Forest for ten to fifteen years (the current plan for the Ashley National Forest was adopted in 1986). Forest plans require consideration of alternatives and public input under the National Environmental Policy Act (NEPA) process. Forest plans describe the desired conditions and provide guidance for projects. They do not make site-specific decisions or require any specific actions, but all projects conducted on a National Forest must be consistent with the strategic direction in its forest plan.

National Park Service (NPS): The National Park Service prepares a variety of planning and environmental documents to help guide management of park resources and visitor use and activity. Most plans follow planning procedures outlined in the National Environmental Policy Act (NEPA).

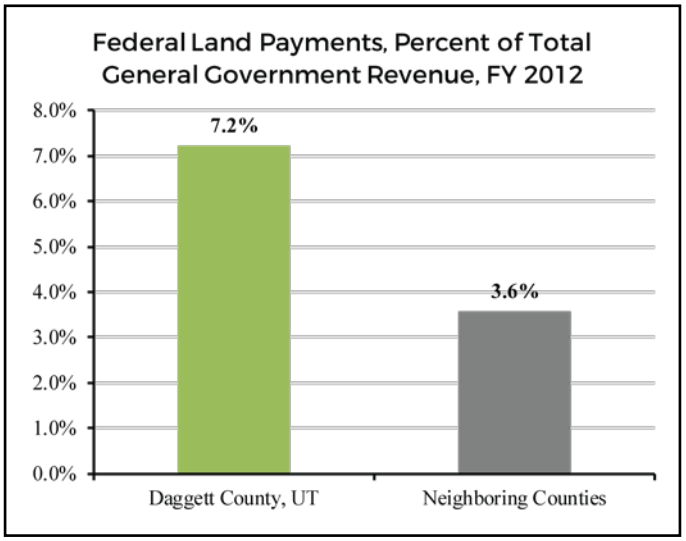
State Institutional Trust Lands Administration (SITLA): Trust lands are parcels of land throughout our state that were granted by Congress to Utah at the time of statehood. Although trust lands support

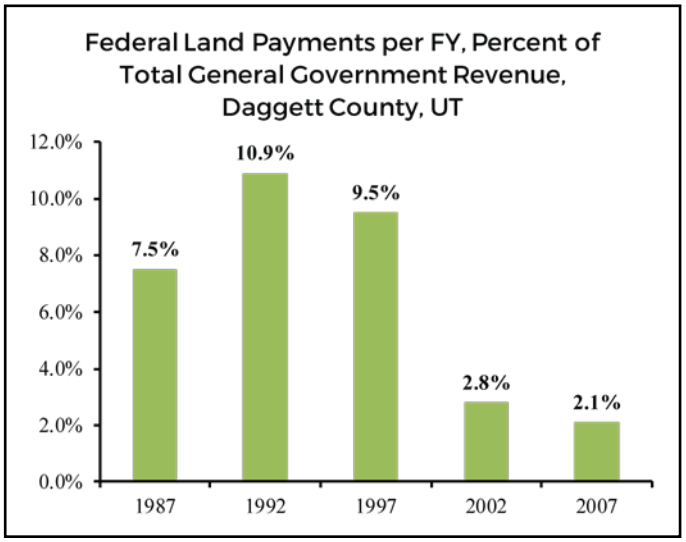
selected public institutions, they are not public lands. Trust lands were allocated specifically to generate revenue to support designated state institutions, including public schools, hospitals, teaching colleges, and universities.

Economic Considerations:

State and local government cannot tax federally owned lands the way they would if the land were privately owned. A number of federal programs exist to compensate county governments for the presence of federal lands. These programs have represented a significant portion of Daggett County's revenue, however, in recent years, there has been a decline in these payments.

The Payment in Lieu of Taxes (PILT) and the Forest Service Revenue sharing (SRS) programs each received a significant increase in federal appropriations in FY 2008 through the Emergency Economic Stabilization Act of 2008. Despite the increased appropriations, SRS was authorized only through FY 2011, PILT only through FY 2012, and federal budget concerns are creating uncertainty for the future of both.





Custom and Culture:

Before the first white settlers arrived in Daggett County in the 1800's, native peoples used the land for hunting, gathering, and possibly, agriculture. The original white settlers farmed and ranched, bringing livestock to the valley for grazing. The land was soon utilized, not only for, agriculture, but for mineral extraction. The discovery of usable coal and extensive iron deposits brought an increase in population, which influenced land development patterns. Today Daggett County still relies on agriculture, mining, and grazing to sustain the residents' economic needs. All of these land uses and more are part of the custom and culture of Daggett County. Multiple uses for lands are more than a tradition, but are a necessity for sustaining growth and community development.

"Daggett County's history is an account of emigration, settlement, and resource development inseparable from the natural landscape. Land management agencies must recognize that developing natural resources is a distinct part of Daggett County's culture, and future sustainability. Daggett County fully recognizes the need to protect and preserve the resources found on agency lands, but feels that

site protection strategies should be carefully considered and balanced with other current and future uses of federal and state lands. Maintaining healthy natural systems is an investment in our future that supports our quality of life, helps to maintain property values, and promotes economic development. Wise stewardship can still allow for resource development while providing for the restoration and maintenance of healthy ecosystems" (Daggett County 2008).

Supporting Policies and Guidelines:

Accomplishing county objectives with regard to public land management agencies (Section 8.4)

Objectives:

1. Support the wise use, conservation and protection of public lands and its resources including well-planned, outcome based management prescriptions. Daggett County acknowledges the need, on occasion, to place strict requirements on the management of some resources to provide needed protection, when it has been determined through scientific and supportable analysis that such needs exist, to protect such resources from irreparable harm.
2. Ensure management decisions are accomplished with full participation of Daggett County and supported by tested and true scientific data. Decisions shall fully analyze and disclose impacts on the area's economy tax base, culture, heritage, and life styles and rights of area residents.
3. Ensure public and private access and rights-of-way for utilities and transportation of people and products on and across public lands. Access must be provided to meet such needs. Minimize impacts of development and land use changes on local governments, infrastructure, and community services.
4. Ensure that adjacent land uses and land use restrictions do not deny private property owners the right of fair use, access to, and enjoyment of their property.
5. Ensure public lands are managed for multiple use, sustained yield, and prevention of natural resource waste. Further, these lands should be managed to prevent loss of resources and private property from catastrophic events and to protect the safety and health of the public.
6. Support national energy needs relative to the nation's increasing dependency on foreign oil, all public lands must remain open to the greatest extent possible for the exploration and production of energy and other energy related products.
7. Ensure that special designations do not influence the use of resources on lands outside those listed in the designation. Daggett County opposes the use of a buffer zone management philosophy that dictates land use practices and influences decisions beyond the scope and boundaries of any public land designation.
8. Support agriculture on private and public lands as part of the local economy, custom, culture, heritage as well as the provision of a secure national food supply.
9. Provide policies, plans, and other documents for governmental agency use to ensure management and planning consistency with Daggett County. To ensure resource management and planning that is consistent with that of Daggett County.
10. Ensure that restrictions placed on any resource are based on analysis of trends, need, and imposed only after a complete analysis.
11. Ensure that lands designated open for various specified uses are available on a timely basis and permits for such use are processed promptly. Extended delays or no action shall not be used as a method to accomplish restrictions or protections. Waivers, modifications or exceptions to restrictions must be provided for when conditions exist or impacts can be mitigated to prevent irreparable damage to the subject resource.

12. Agriculture and grazing lands should continue to produce the food and fiber needed by the citizens of the state and the nation, and the rural character and open landscape of rural Utah should be preserved through a healthy and active agricultural and grazing industry, consistent with private property rights and state fiduciary duties.

Related Resources and Uses:

-Wilderness
-Recreation and Tourism
-Energy
-Land Access
-Wild & Scenic Rivers
-Law Enforcement
-Water Quality & Hydrology
-Threatened, Sensitive & Endangered Species
-Cultural Resources

Law Enforcement

Law enforcement is defined as the designated personnel group who has federal, state, or local authority within a jurisdiction to enforce the law or respond to an emergency.

Findings:

Overview

Law enforcement in Daggett County includes many jurisdictions.

The Daggett County Sheriff's office is based in Manila and provides service to local citizens.

An example of law enforcement coordination involving public lands is livestock theft. The Livestock Inspection Bureau at the Utah Department of Agriculture and Food deals with cases of livestock theft, in close coordination with county sheriff's offices. Cases of livestock theft are eventually prosecuted through the county attorney. Additionally, in situations of disease outbreak, the Livestock Inspection Bureau works with Sheriff's offices to help enforce livestock quarantines (UDAF 2017).

Best Management Practices (BMPs)

In the context of resource management planning, best management practices (BMPs) can address public safety, property protection, and inter-agency coordination policies and recommendations as these relate to public use areas. Potential BMPs may include:

Coordinate interagency law enforcement (civil, wildlife resources, and recreation public use regulations) between the County, cities, Utah Division of Wildlife Resources, BLM, Forest Service, and the Utah Division of State Parks.

Maintain law and order [on public lands] to protect the health and safety of persons using the area.

Control litter, discourage vandalism, and perform search and rescue operations as appropriate.
Notify the county sheriff's office immediately when there is a life-threatening situation, criminal act, project structure failure, resource contamination, natural phenomenon (landslides and fire), cultural resource site(s) disturbance, and/or discovery of human remains.

Designate areas where discharge of firearms, bow and arrow, or air and gas weapons is not appropriate.

Provide emergency communication and coordinate with local law enforcement.

Ensure that appropriate fire management regulations and procedures are in place and enforced in [appropriate areas].

Assess ways to financially support search and rescue operations in the county.

Economic Considerations:

An appropriate level of service for law enforcement is essential for all levels of government to protect the health, safety, and welfare of the County, which will in turn positively impact the local industry. Benefits are direct and indirect.

Annual operating costs for local law enforcement (Daggett County Sheriff's departments) are influenced by public lands law enforcement activities, including coordination activities with state and federal law enforcement agencies. Costs associated with search and rescue operations are increasing in many areas of the state, particularly with increased recreation use of remote lands. Utah counties have the option to charge people who are rescued and/or can receive reimbursement through the state's Search and Rescue Financial Assistance Program.

The Utah Search and Rescue Assistance Card (USARA Card) offers expense-paid rescue to individuals (hunters, hikers, other backcountry enthusiasts) for an annual fee. Money raised by the program will support the State's Search and Rescue Financial Assistance Program. County Search and Rescue teams will receive reimbursement for equipment, training and rentals from the program. Such expenses are often borne by the counties.

Custom and Culture:

Law enforcement has always been important to citizens in Daggett County for the safety, protection, and security it provides. The Town of Manila has no law enforcement of its own and contracts with the County Sheriff's office.

Objectives:

Ensure that the Sheriff and associated deputies are the chief law enforcement officers on public lands.

Related Resources and Uses:

-Recreation and Tourism
-Land Access
-Water Rights
-Land Use
-Fire Management

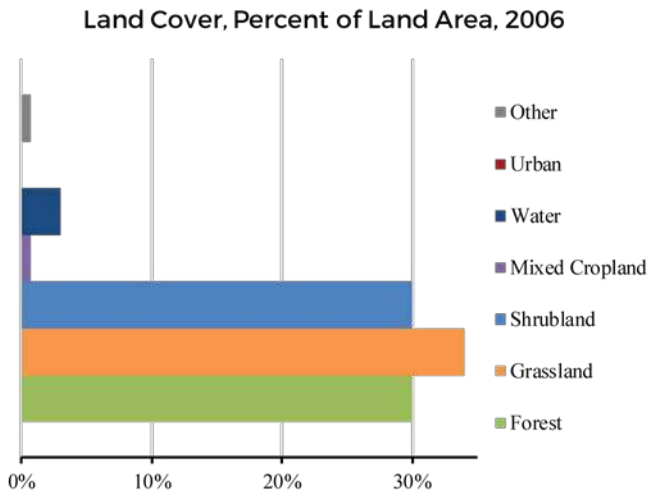
Livestock and Grazing

Livestock: domesticated animals raised in an agricultural setting to create food, fiber, labor, or other products.

Grazing: a method of feeding whereby domestic livestock consumes plant material and then convert it into meat, milk and other products.

Findings:

Livestock and grazing in Daggett County is important for the natural, cultural, social, and economic benefits it provides. Livestock and grazing successfully balances those benefits and continues to be a valuable source of jobs and income locally. In Daggett County, agriculture provides jobs, local tax base, a variety of environmental benefits, scenic beauty, food and fiber for human consumption, and fuels management. The practices of raising livestock and grazing animals is considered part of agriculture; please refer to the agriculture section in this plan for more information.



Animal agriculture in Utah represents the single largest sector of farm income in Utah. At a value of more than $1 billion, 25 of the state's 29 counties report livestock as the dominant agricultural sector (Utah Department of Agriculture and Food n.d.).

"The majority of the livestock operators in the county are dependent upon rangelands for their forage base, and large portions of livestock are grazed on public lands. Numerous wildlife species also use these same public and private lands. This area's agriculture production is based mainly on the rearing of livestock and pasture, hay land, and rangeland to support the livestock industry. Therefore, the use of pastures and rangelands are an important tool used in this area. Pasture and rangeland health is key to long-term watershed health and profitability. Drought years limit available water for irrigation and stock. Inadequate water developments create management challenges that limit livestock distribution. Since becoming a salinity area, funding for improved irrigation systems and pipelines has become available and yields and management have increased" (Daggett Conservation District 2012).

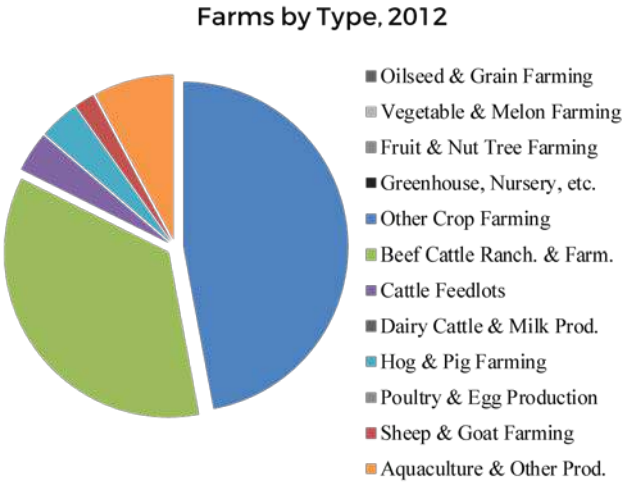
"The *Livestock Grazing in Utah: History and Status* (2008) report states, "Rangelands in Utah are primarily administered by the Bureau of Land Management (BLM) and Forest Service (FS). Data from the BLM indicate that use by domestic livestock has declined more than two-thirds over time. Most of this decline has been associated with the reduction of the sheep industry. Similar data for the FS indicate that declines in the use of FS lands have not been as dramatic as on BLM lands, but usage of FS lands today is about half what it was 60 years ago."

The *Livestock Grazing in Utah: History and Status* (2008) report states, "Every Utah livestock producer identified by the Utah office of the National Agricultural Statistics Service (NASS), as well as out-of-state operators with permits to graze public lands in Utah, were sent a survey that was designed to obtain information not available elsewhere. Analyses of these data indicate the following:

1. The number of animals owned by permittees is much larger than those owned by non-permittees.
2. Most livestock operations have been owned by the same family for many years (commonly more than 50 years), and a large portion plan to have a family member operate the ranch in the future.

This was especially true of permittee ranches.

3. A large portion of livestock producer sales are made to local firms, but an even larger percentage of their purchases are from local firms. As a result, firms in communities where livestock production is a large portion of the area's economic activity are intimately concerned with the health of the livestock industry.



4. Pasture is the primary source of feed for non-permittee livestock operators when they are not being fed hay (winter), while forage from public lands is the most important source of feed for permittee operators. Pasturelands are an important source of feed for all operators, but use of federal lands allows permittees to reduce their dependency on hay as a source of feed.
5. The market for grazing permits is poorly understood and not well defined. As a result, little is known about the economic demand for grazing permits.
6. Actual use of permits was generally less than permitted use in 2006, but this is not unusual. Many permittees have and continue to take voluntary non-use of federal lands as a result of reduced forage availability (primarily associated with drought).
7. Lands administered by the BLM provide the largest percentage of grazed forage by those having permits to graze federal or state administered lands. However, the percentage varies in the regions outlined in the study.
8. The most critical period of use of public lands for most permittees was during the summer.

The amount of federally permitted animal unit months (AUMs) in Utah declined four fold between 1940 and 2005. On BLM land, 2,749,000 AUMs were available in 1940 but were reduced to fewer than 675,000 AUMs in 2009. On U.S. Forest Service land, the AUMs available decreased from 2.7 million in 1940 to 614,000 in 2008 (UDAF 2016). In response to these declines, 2016 House Bill 145 – the Rangeland Improvement Act was passed, and the Utah Grazing Improvement Program was established. The goals of the act are to strengthen Utah's livestock industry, improve rural economies, and enhance the environment.

In large part, Daggett County private property owners and farm operators control this resource when occurring on private property. Where grazing takes place on federal lands, federal land managers are responsible for the many regulations and restrictions.

Economic Considerations:

"Ranching is the most common economic activity in Daggett County. Since settlement, the local economy has been dependent on livestock production. Cattle is the main livestock raised, with some

horses that are used on ranches. Sheep numbers have declined dramatically to farm flocks" (Daggett Conservation District 2012).

Statistics from the USDA report that Daggett County has seen a 6% increase in the number of farms and a 36% increase in the market value of products sold between 2007 and 2012 (USDA 2007, 2012). Daggett County has seen a marked increase (267%) in government payments between 2007 and 2012, and the average per farm receiving payments has also dramatically increased (269%) in the same time period (USDA 2012).

In 2012, the value of agricultural products in Daggett County totaled over $2.3 million, with 67% attributed to livestock sales, and 34% to crop sales (USDA 2012).

According to the *Utah Agriculture Sustainability Task Force* (UDAF 2012), "The state of Utah ranks 37th in the nation in agricultural receipts, with over $1.5 billion in cash receipts from farms and ranches:

- cattle ($319 million)
- dairy products ($301 million)
- hay ($261 million)
- hogs ($168 million)
- poultry/eggs ($140 million)
- sheep ($18 million)

"Agricultural sales account for about $1.5 billion annually. Food growers, processors, and other agriculture related businesses employ more than 66,000 people and contribute approximately 14 percent to the State's economy. Grocers are not included in these figures" (UDAF 2012).

Rural Utah Economic Survival -- Federal Land Grazing (1991) explains that in 1991 the primary and secondary values of grazing per AUM and total for federal lands were estimated to be $59,946,877. "An annual value of about $60 million in economic activity should be important to more Utahns than the livestock industry. There is a real opportunity cost of shifting federal lands out of grazing to other uses" (Nielsen 1991). However, that only considers the products of the livestock industry up to weaning time.

The Livestock Grazing in Utah: History and Status (Godfrey 2008) report explains, "...livestock production is essentially synonymous with agricultural production in Utah: Utah agriculture is dominated by livestock production." As in the State of Utah, livestock and grazing is important to the agricultural production in Daggett County.

According to the USDA National Agricultural Statistics Service, the top livestock inventory items in Daggett County are cattle and calves, followed by sheep and lambs. The market value of livestock sales in the County was just over $3.3 million in 2014, accounting for 84% of all agricultural products sold (USDA 2014).

Custom and Culture:

Since the 1880's when Daggett County first saw an influx of settlers, people have been raising cattle, sheep, and horses for food, fiber, labor, and recreation. Two Century Farms have been designated in the county for their historical significance. The County considers agriculture to be part of its history, custom, and culture. This tradition is still practiced and celebrated locally.

The Livestock Grazing in Utah: History and Status (2008) report states, "Livestock have been commercially grazed on lands in Utah for more than 150 years. The earliest record of grazing was by a herd of cattle owned by Miles Goodyear in the early 1840s. Native Americans probably grazed sheep and horses before that time. Grazing of lands by cattle and sheep in Utah increased rapidly after 1847, following the arrival of the pioneers in the Salt Lake Valley."

"Henry's Fork was the first area of Daggett County utilized for ranching. The Henry's Fork River skirts the northern edge of the Utah and Wyoming border before emptying into the Green River at Flaming Gorge. The river is fed by many small tributaries that have their headwaters in the high Uinta Mountains, currently on national forest land. Throughout the nineteenth century, small ranching operations ran their cattle throughout the Henry's Fork drainage and into the northern benches of the Uintas (Shamo et al. 2012).

While Daggett County attracted people of all stripes, ranching was the activity that tied all of them together. Henry's Fork and Brown's Park, portions of which are now part of the Ashley National Forest, were well-suited for small family-owned operations and large commercial operations, cattlemen and sheepmen, legitimate businessmen and outlaws. Though conflicts inevitably arose, each group was able to carve a small niche on the open range. From their small towns and homesteads, these ranchers of all types utilized the area in and around the Ashley National Forest (Shamo et al. 2012).

Supporting Policies and Guidelines:

Position statements on forage allocation and livestock grazing (section 8.5).

Objectives:

1. Maintain cattle and sheep grazing on BLM, U.S. Forest Service, State Lands, and SITLA lands at historic levels.
2. Maintain cattle and sheep grazing on BLM, U.S. Forest Service, State Lands, and SITLA lands at historic seasons of use.
3. Avoid the reduction of grazing to support wildlife, especially non-native species.
4. Cooperate with U.S. Forest Service to address the transmission of disease from domestic sheep to wild sheep.

Related Resources and Uses:

-Land Use
-Agriculture
-Water Quality & Hydrology
-Wilderness
-Water Rights
-Forest Management
-Predator Management
-Noxious Weeds
-Wildlife
-Threatened, Sensitive & Endangered Species

Mineral Resources

Mineral resources are defined as natural resources in the form of minerals (solid inorganic substances).

Findings:

Mineral resources are deposits or occurrences of inorganic materials with intrinsic economic value (such as ore, aggregate, oil, and gas) that may be extracted from the earth's crust. Mineral resources are regulated and managed based on type, and are grouped into three categories: locatable, leasable, and saleable. The primary minerals that are being withdrawn include phosphate and oil.

"The Diamond Breaks Wilderness Study Area consists of 36,240 acres in north-western-most Colorado and northeastern most Utah. The study area has inferred subeconomic resources of sand, gravel, and common variety rock. The potential for undiscovered resources of gold, uranium, copper, lead, zinc, or other metals, tuff (pumicite), and oil and gas is rated as low. There is no resource potential for coal, manganese, phosphate, clay and shale, limestone, and gypsum" (Connor et. al 1988).

"Gilsonite, a lightweight, glossy black, bituminous asphaltite, is the primary hydrocarbon mined in Utah. It has been mined commercially only in northeastern Utah, where it occurs south of Vernal and Roosevelt in parallel vertical veins that cut across the Uinta Basin. It is believed to be a solid residue of petroleum, and was initially named uintaite in 1885 by W.P. Blako. The mineral was later named in honor of Samuel H. Gilson, a Salt Laker who brought it into prominence for commercial uses such as in paints and varnishes, and in other building products" (Powell 1994).

Locatable Minerals

This category includes high-value minerals such as gold, silver, and copper that are subject to the Mining Law of 1872 as amended by 30 USC 2. Under the Mining Law, mining claims can be filed for these minerals. The category also includes certain industrial minerals such as gypsum, chemical grade limestone, and chemical grade silica sand. Uncommon varieties of mineral materials such as pozzolan, pumice, decorative rock, and cinders may also be regulated as locatable minerals if demonstrated to have unique market value.

Leasable Minerals

This category includes gas, oil, oil shale, coal, oil sands, phosphate, and geothermal resources, and are subject to the Mineral Leasing Act of 1920, as amended and supplemented (30 USC 181, et. seq.), the Mineral Leasing Act for Acquired Lands as amended (30 USC 351-359), and the Geothermal Steam Act of 1970 (30 USC 1001-1025).

Saleable Minerals

This category includes more common mineral resources including sand, stone, gravel, pumice, clay, and petrified wood. Regulation of these minerals on public lands is authorized by 30 USC 601. State and private lands are regulated by state, county, and local jurisdiction and land use codes.

The same report gives similar findings for phosphate. "There is high and moderate phosphate occurrence potential within the Planning Area. There are established, current economic operations for phosphate in the Planning Area. Phosphate mining on private land is anticipated to continue over the next 15 years. There is some potential for exploration on Federal lands over the next 15 years" (BLM 2002).

Economic Considerations:

"Bituminous coal crops out in the Frontier Formation in the Flaming Gorge quadrangle [...] Coal deposits of the area seem to lack any potential for production in the foreseeable future. Despite apparently good quality, individual beds are too thin to be mined profitably even under favorable economic and

marketing conditions. Surface outcrops of coal near the mouth of Spring Creek [are] inundated by highwater storage when Flaming Gorge Reservoir is filled" (Hansen 1965).

All mineral resources have a large impact on our economy. State and Federal Government have control over the majority of these minerals, so how they manage them can affect the economy.

Custom and Culture:

The State of Utah has primacy on regulation and reclamation of mining activities on all lands within the state, and the Utah Legislature assigned responsibility for administration of mining to the Utah Division of Oil, Gas, and Mining (DOGM).

Supporting Policies and Guidelines:

Position statements on energy and mineral resources (section 8.5).

Objectives:

Continue to allow access, and increase access to public lands for mining and mineral resource development in a manner that 1) satisfies local and national needs and provides for economical and environmentally sound exploration, extraction, and reclamation practices; and 2) is consistent with, and complementary to, the Uintah Basin's lifestyle, character, and economy.

Related Resources and Uses:

-Water Rights
-Land Use
-Air Quality
-Water Quality & Hydrology
-Energy
-Mining
-Cultural Resources
-Land Access

Mining

Mining is defined as the process or industry of extracting minerals or other geological materials from a mine or other extractive process.

Findings:

Mineral resources are deposits or occurrences of inorganic materials with intrinsic economic value. Mining of these minerals on public lands is authorized by 30 USC 601. State and private lands are regulated by state, county, and local jurisdiction and land use codes.

The Utah Legislature has assigned the Utah Division of Oil, Gas, and Mining (DOGM) responsibility for regulating mineral exploration, development, extraction, and reclamation on "all lands in the state of Utah lawfully subject to its police power. No political subdivision of this state shall enact laws, regulations, or ordinances which are inconsistent with this act." This includes federal, state, and private lands (P. Baker, DOGM, personal communication). These regulations are spelled out by The Mined Land Reclamation Act (1975). The BLM and Forest Service have their own regulations which may vary slightly from those of the state. On public land, mineral surveying and extraction is subject to "dual regulation," meaning both DOGM regulations, and the regulations set by the BLM or Forest Service must be

followed. Utah Code 40-8-2 states that a mining industry is essential to the economic and physical well-being of the state.

The state of Utah, the Forest Service, and the BLM require land reclamation bonds on mining operations. The purpose of these bonds is to create a financial surety that the state or land management agency can use to reclaim the land if the operator is unable or unwilling to do so. Disturbances caused by the mining operation must be rehabilitated to either the original state, or a degree agreed upon by the company and the agency. Mining operations on public land need a bond which may be held by either the federal agency or the state (P. Baker, DOGM, personal communication).

In 2008, the BLM Vernal Field Office released management decisions regarding mining on public lands, including for acreages in Daggett County. "76,208 acres of BLM-administered lands (approximately 30,273 acres in Daggett County and 42,235 acres in Uintah County) will be open to phosphate prospecting, leasing, and development with standard and special stipulations within the phosphate occurrence areas. [For saleable minerals,] 389,788 acres of BLM-administered lands (14,915 acres in Daggett County, 38,612 acres in Duchesne County, and 336,762 acres in Uintah County) will be available for mineral material disposal with standard and special stipulations" (BLM 2008).

The hard rock mineral, coal, and industrial mineral assets of SITLA are managed by the Administration's mining group. Revenue is generated primarily through rents and production royalties. Crushed stone aggregate and tar sands are the main mineral assets SITLA manages in Daggett County. Information about oil and gas development can be found in the Energy, and Mineral Resources sections.

Economic Considerations:

In 2015 mining contributed just over $3 billion directly to the gross domestic product (GDP) of Utah, making up about 2.3% of the state's total GDP (National Mining Association 2016).

In 2014, Utah produced 1.8% of the coal in the United States, 30% of that production was shipped out of the state (U.S. Energy Information Administration 2016). Employment in mining especially has changed in recent year; as of March 2016, 9,500 miners are employed in Utah, this is down 12.8% from March 2015 (Department of Workforce Services 2016).

According to the County General Plan (2008), Natural Resources and Mining made up 6% of total employment in Daggett.

Custom and Culture:

"Utah contains a remarkable variety of energy and mineral resources. The development of these resources for over 165 years has been important to Utah and the United States. Mining plays a vital role in Utah's economy and is the oldest nonagricultural industry in the state, employing thousands directly in mining, processing, and transportation, and indirectly in supporting occupations. The recorded mining history of Utah began in 1847. Soon after their arrival, Latter-day Saint pioneers began developing mineral resources. Their early efforts included recovering salt from Great Salt Lake, coal mining (near the communities of Coalville, Wales, and Cedar City), quarrying building stone, and production of clay and lime products" (Boden et al. 2014).

"Other hydrocarbons found in eastern Utah which were sometimes mined on a small scale included kerogen (in the oil shales of the Green River formation), bituminous sandstone, wurlitzite ("elaterite" or mineral rubber), bituminous limestones, ozokerite (mineral wax), nigrite, and tabbyite" (Powell 1994).

Approximately 79% of residents in the Uintah Basin believe that federal land managers should either maintain, moderately increase, or substantially increase the extent to which mineral exploration and extraction activities occur on Utah's public lands (Krannich 2012).

Objectives:

Continue to allow access, and increase access to public lands for mining and mineral resource development in a manner that

1. satisfies local and national needs and provides for economical and environmentally sound exploration, extraction, and reclamation practices; and
2. is consistent with, and complementary to, Daggett County's lifestyle, character, and economy.

Related Resources and Uses:

-Water Rights
-Land Use
-Air Quality
-Water Quality & Hydrology
-Energy
-Mineral Resources
-Cultural Resources
-Land Access

Noxious Weeds

Noxious weeds are plants that are considered harmful to agricultural or horticultural crops, natural habitats or ecosystems, or humans or livestock. Often times they are non-native species, which spread rapidly due to habitat disruption or poor land management.

Findings:

There are many species of exotic and invasive weeds in the Utah. Some species, however, have more potential to be "injurious to public health, crops, livestock, land, or other property" (Utah Administrative Code R89-9). The Utah Noxious Weed Act (2008) defined 28 noxious weed species in three prioritization categories. In 2015 the official State Noxious Weed list was updated to include 54 species and prioritization categories were modified.

"Invasive plants can have a significant impact on an array of ecological facets. Invasive plants have reduced species richness, plant diversity, and community productivity. Wildlife habitat and forage have been degraded; soil erosion and stream sedimentation have increased; soil moisture and nutrient levels have been depleted; and fire regimes have been altered. As cheatgrass has become a common component of sagebrush steppe vegetation communities, the nutritional quality of forage has been reduced, the intensity and frequency of fires have changed, and water cycles have been altered. Although many factors are involved, several native animals, such as sage grouse, may have declined as a result of these changes" (Utah State University 2009).

According to the Noxious Weeds Field Guide of Utah, "Noxious weeds are currently spreading at a rate of more than 4,600 acres per day on federal lands in the United States" (Bellison et al. 2009).

"Attempts to manage and eradicate invasive plant species have been made utilizing various control methods. Historically, mechanical and chemical control techniques were the predominant invasive plant management methods; however, biological and cultural control techniques have been implemented and integrated with other practices. Mechanical control techniques include hand-pulling, hoeing, mowing, tilling, chaining, and bulldozing. Hand-pulling and hoeing are effective in controlling small infestations of shallow-rooted weeds in loose, moist soils. Mowing is commonly used to control invasive range annuals and some perennials; however, the success of mowing is highly dependent on timing. Annuals and some perennials can be suppressed and controlled if mowing occurs before viable seeds form. If not properly timed, mowing can promote the spread of invasive plants by encouraging the spread of seeds and stimulating the production of new stems from vegetative buds. Tilling practices can control annual species, but they rarely provide control of perennial species… More expensive mechanical control techniques, such as chaining and bulldozing, are effective in controlling invasive shrub and tree species. Although these methods require gentler terrain and are becoming increasingly expensive, they are effective in controlling shrubs and trees that do not readily resprout from root systems" (Utah State University 2009).

Cooperative weed management areas (CWMAs) can be an effective resource in the prevention, detection, and suppression of noxious and invasive weeds. Coordinated mechanical, chemical, and biological control over large areas by multiple landowners has proven successful for a variety of weed species. These areas replace jurisdictional boundaries in favor of natural boundaries that facilitate cooperation, coordination, and implementation of effective integrated weed management programs for listed noxious weeds (Utah Weed Control Association 2017). The Green River, and the Green River Basin CWMAs are located in Daggett and its neighboring Sweetwater County.

Priority noxious weeds in Daggett County include black henbane, Canadian thistle, Dalmatian toadflax, dyer's woad, Hoary cress, leafy spurge, Oxeye daisy, perennial pepperweed, Russian knapweed, Russian olive, Scotch thistle, spotted knapweed, Burdock, and Tamarisk (Daggett Conservation District 2012).

"In an attempt to get weed control underway, Daggett has been making efforts to complete mapping for the noxious weeds in the county and then develop a plan to address weed infestations" (Daggett Conservation District 2012).

The USDA is the primary leader involved in preventing the introduction of invasive species, largely through the Animal and Plant Health Instpection Service (APHIS). The Natural Resource Conservation Service (NRCS) also contributes to preventative measures and education on plants that may pose a risk to cropland, rangeland, or wildlands.

The Utah Noxious Weed Act (Utah Administrative Code R89-9) requires landowners and Daggett County to control state-listed noxious weed species on their lands. The act stipulates that each county and municipality in Utah must adopt a noxious weed management plan for its jurisdiction and identify the plant species in its area that it considers noxious weeds. In addition, if landowners and managers fail to control weeds on their property, Daggett County or municipality may legally enter the property, control weeds, and charge the landowner for the cost of control work.

Economic Considerations:

"The invasion of non-native plant species not only produces various ecological modifications, but also results in substantial socioeconomic impacts, particularly to the livestock industry and land management agencies responsible for fire suppression. Invasive plant species cause more economic loss on rangeland than all other pests combined. Invasive plants reduce the carrying capacity for livestock by lowering the

forage yield. Consequently, the costs of managing and producing livestock increase" (Utah State University 2009).

"The importance of herbicides in modern weed management is underscored by estimates that losses in the agricultural sector would increase about 500% from $4.1 billion to $20 billion per year without the use of herbicides" (Whitesides 2004).

"The implementation of one control method is rarely effective in achieving the desired results for curtailing the spread of invasive plants. Successful long-term and cost effective management programs should integrate a variety of mechanical, chemical, biological, and cultural control techniques. Integrated management involves the deliberate selection, combination, and implementation of effective invasive plant management strategies with due consideration of economic, ecological, and sociological consequences… Presently, there are several examples of integrated strategies used to manage invasive plants and improve rangeland communities. Much attention has been focused on the integration of targeted or prescription grazing with other control methods, as the incorporation of grazing management is an essential component in successfully addressing invasive plant problems" (Utah State University 2009).

Custom and Culture:

Because ranching and farming is a custom and part of the culture of Daggett County, it is important to maintain ecological integrity in order to support and protect agricultural industries.

Objectives:

1. Reduce or eliminate noxious weed infestations and minimize the establishment of new weed species across jurisdictional boundaries using adaptive management and integrated weed management approaches.
2. Accomplish weed control without adverse human, grazing, and environmental effects.
3. In areas where weeds have been treated, revegetate and restore with desirable native plant species.
4. Manage noxious weeds to enhance wildlife habitat and farmland.

Related Resources and Uses:

-Forest Management
-Fire Management
-Agriculture
-Livestock and Grazing
-Riparian Areas

Predator Management

Predator management is defined as the strategies and practices to control the actions of predators, or bringing into natural ecological balance predator populations, or reduce the number of conflicts with predator animals.

Findings:

One primary focus of predator control in Utah is protecting mule deer from coyotes. In 2012, the State established the Mule Deer Protection Act which pays hunters a bounty fee for coyotes that are harvested. Predators can also be a significant threat to endangered species, and counties often support open hunting and taking by other means of predators as a support to other protection efforts.

In Utah, the primary agent for predator control is the Division of Wildlife Resources. They manage predator populations through hunting permits and reimbursement for livestock damaged by predators.

The DWR predator-control program provides incentives for hunters to remove coyotes. Participants receive $50 for each properly documented coyote that they kill in Utah.

The USDA established a program in 1895 called Wildlife Services (WS) to assist land managers. WS focuses on predator control activities for the protection of livestock. “Currently, WS operational activities include conducting rabies control and eradication efforts, managing invasive species, completing wildlife disease surveillance, reducing the impact of predation on livestock, preventing wildlife strikes at airports, protecting transportation infrastructure, and protecting threatened/ endangered species, rare habitats, and ecosystems” (Animal and Plant Health Inspection Service 2009).

The Animal and Plant Health Inspection Service (APHIS) Wildlife Services (WS) also contributes to livestock resource protection. “WS personnel recommend and conduct wildlife damage management activities to protect many types of resources… WS personnel use an integrated wildlife damage management approach, in response to requests for assistance to protecting agriculture, natural resources, property, and human health & safety” (USDA 2015).

All over the West, crows and ravens have affected sage-grouse populations by finding their nests and preying on their chicks. “Direct effects of nest predation on nesting productivity of birds are widely recognized, and even in high-quality sage-grouse habitat, most sage-grouse nests are lost to predators” (Dinkins et al. 2012). “An effort is underway to remove ravens from the Migratory Bird Treaty Act, which bans harming or killing the birds” (Gurrister 2014).

Economic Considerations:

Losses due to predation can be significant. In 2014 in Utah, 5,200 sheep and 12,100 lambs were killed by predators for a total value loss of nearly $3 million (USDA 2015).

- Coyotes were by far the largest contributor to predation deaths (2,800 sheep and 8,500 lambs), bears were second (1,100 sheep and 1,700 lambs), and mountain lions third (700 sheep and 900 lambs).

Utah cattle are also killed by predators, though not in as many numbers. According to the APHIS (USDA 2011), in Utah, 300 head of cattle and 2,300 calves were killed by predators for a total value loss of $1.1 million

- Coyotes are responsible for the majority of cattle predation, including 58% of calf losses and 44% of cows.
- Bears were responsible for 43% of the cow losses.

The Utah Division of Wildlife is primarily responsible for predator control strategies and enforcement.

Custom and Culture:

When the pioneers arrived in Utah, wildlife represented both benefits and problems. Fish became a significant part of the pioneer diet, particularly when crop failures occurred. At other times, hunting

parties were formed to rid the early settlers of "pest" species. One such hunting company reported the killing of "2 bears, 2 wolverines, 2 wild cats (bobcat), 783 wolves (probably both coyotes and wolves), 400 foxes, 31 mink, 9 eagles, 530 magpies, hawks, owls, and 1626 ravens" (Powell 1994).

One of the principles that drove for the establishment of the Forest Reserve Act of 1891 and Taylor Grazing Act 1934 was to address overgrazing and predator control.

Supporting Policies and Objectives:

Position statements on wildlife (section 8.5).

Position statements on introduced, threatened, endangered, and sensitive species, recovery plans, and experimental populations (section 8.5).

Objectives:

1. Support improved management of predator numbers to restore historic populations of wildlife, especially where habitat is sufficient
2. Support improved wildlife management to protect agriculture profitability and minimize depredation
3. Federal and state agencies must work collaboratively with the County to manage and conserve game species and their habitats in a manner that respects private property rights and state management authority over wildlife resources.
4. No restrictions may be placed on a resource or a resource use to provide for protection or expansion of species classified as predators under state statute.

Related Resources and Uses:

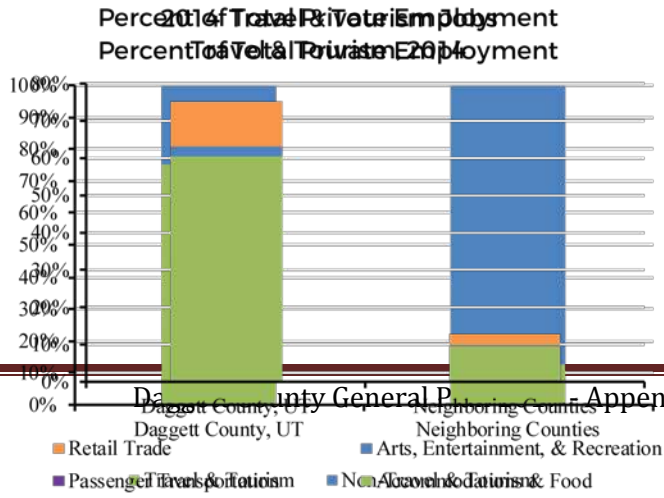
-Agriculture
-Livestock and Grazing
-Threatened, Sensitive & Endangered Species
-Wildlife
-Land Use

Recreation and Tourism

Recreation is an activity done for enjoyment. Tourism is the social, cultural, and economic phenomenon of visiting places for pleasure.

Findings:

"Daggett County, the youngest and least populated county in Utah, had a 57.8% leisure and hospitality share of total private jobs in 2015, ranking 1st statewide. Daggett County shares its borders with Wyoming and Colorado and is best known for Flaming Gorge National Recreation Area, which attracts outdoor enthusiasts from surrounding cities and states. The "A"



Section of the Green River that flows out of Flaming Gorge Dam boasts blue ribbon trout fishing and is a popular daily river stretch for rafts, kayaks, and dories. Boating and fishing on Flaming Gorge Reservoir are also very popular and the county, which includes tracts of the Ashley National Forest, hosts over 700 individual campsites and 27 group sites. Recently, Daggett County has been working with the Utah Office of Outdoor Recreation, Utah State Parks, the U.S. Forest Service and the Bureau of Land Management to develop new trails and to better promote existing trails in and around the county" (Kem C. Gardner Policy Institute 2015).

"The U.S. Forest Service's Ashley National Forest manages over 245,000 acres of land in Daggett County including the Flaming Gorge National Recreation Area. Forest Service managed acreage accounts for nearly 55% of the land in Daggett County. There are plenty of recreational opportunities on the Forest Service lands including: camping, fishing, hiking, biking, rafting, photography and wildlife viewing" (Daggett County 2013).

Economic Considerations:

Total tourism-related tax revenues grew 7.6% from 2014 to 2015. In 2015, taxable sales in the leisure and hospitality sector decreased 1.3%. Food service sales decreased 14.5% in 2015. In 2015, leisure and hospitality jobs increased 2.5%. Since 2011, leisure and hospitality jobs have increased every summer and decreased every winter, creating a larger gap between the tourist season (summer) and off-season (winter) (Kem C. Gardner Policy Institute 2016).

Daggett County can influence recreation by providing adequate recreation infrastructure (showers, campsites, trails, etc) and advertising recreation resources. The County cannot control consumers nor influence competing destinations.

Custom and Culture:

For more than a century citizens and visitors have been taking advantage of the unique landscape in Daggett County for recreation. Locals have always valued multiple-use management strategies as to accommodate as many interests and users as possible.

"Despite the difficulty of access, a fledgling tourism industry began to develop in Daggett County during the 1930s and 1940s. A small fishing resort was opened at Greens Lakes near Greendale, and the Schofield family opened a lodge at Spirit Lake. Manila had a hotel and two gasoline stations to serve the traveling public" (Johnson et al. 1998).

"Flaming Gorge Dam brought new life to the area when it was very much needed. It brought high-speed roads that vastly improved transportation, and it brought new jobs and business opportunities in recreation and tourism" (Johnson et al. 1998).

Supporting Policies and Objectives:

See also Objective 3.3.1
See also Objective 4.4.1
See also Objective 7.3.1

Position statements on recreation and tourism (section 8.5).

Objectives:

1. Support outdoor recreation as part of a balanced plan of economic growth and quality of life.
2. Leverage federal and state recreation areas, parks, and sites as county-based scenic and recreation economic assets.
3. Coordinate Uintah Basin Association of Governments and county recreation economic development efforts and activities with other state, local, and private interests, e.g., destination resorts and private facilities.
4. Cultivate recreation and tourism facility development and maintenance "partnerships" with agencies and special interest groups.
5. Identify and preserve locally important recreation resources for future generations.
6. Support active management of conflicting recreational uses so that multiple users, e.g., motorized and non-motorized user groups, are accommodated to the greatest extent practicable.

Related Resources and Uses:

-Agriculture
-Livestock and Grazing
-Threatened, Sensitive & Endangered Species
-Wildlife
-Land Use

Riparian Areas

A riparian zone is the interface between land and a stream or river.

Findings:

Riparian zones are important in ecology, environmental management, and civil engineering because of their role in soil conservation, their habitat biodiversity, and the influence they have on fauna and aquatic ecosystems, including grasslands, woodlands, wetlands, or even non-vegetative areas.

According to the *Utah Wildlife Action Plan (2015)*, "riparian areas are the richest habitat type in terms of species diversity and wildlife abundance". These areas provide habitat to a range of wildlife including amphibians, birds, mammals, fish, and insects. Riparian areas also play a significant role in the erosion processes by slowing water, trapping sediment, and stabilizing banks. Finally, riparian areas provide quality forage for livestock and are valued within grazing allotments.

The Green River represents a major water resource in Daggett County. The adjacent riparian lands must be managed to best balance the interests of residents and the environment.

Riparian areas should be managed to protect vegetation characteristics. Conservation efforts include preserving existing riparian areas as well as restoring damaged ones. Preservation should also include the dedication of sufficient water and groundwater to support vegetation. Limiting the removal of water from the system is essential in maintaining the integrity of the riparian area. Restoration efforts must consider factors like hydrology, floodplain, and adjacent land use. Restoration design of riparian areas

should follow a protocol that accounts for stream hydrology, soil characteristics, vegetation, adjacent land use, recreation, and other influences. Stream or river modifications may require permits.

Federal agencies manage riparian areas and floodplains under Executive Orders 11988 and 11990, Sections 303 and 404 of the Clean Water Act, and also the Endangered Species Act. Riparian areas are also managed under individual resource management plans and other agency policies and guidelines, such as the US Bureau of Land Management's Riparian Area Management Policy.

The Utah Comprehensive Wildlife Conservation Strategy prioritizes habitat categories based on several habitat criteria important to the species of greatest conservation need. The top key habitat statewide is Lowland Riparian (characterized by riparian areas <5,500 ft elevation; principal vegetation: Fremont cottonwood and willow), while the third most key habitat is Mountain Riparian (characterized by riparian areas >5,500 ft elevation; principal vegetation: narrowleaf cottonwood, willow, alder, birch and dogwood) (Sutter et al. 2005).

The Utah Division of Water Rights processes stream alteration permits in conjunction with the US Army Corps of Engineers.

Economic Considerations:

It is difficult to quantify the economic benefits of riparian areas. They are intertwined with nonmarket ecosystems and services like clean water, wildlife habitat, recreation, and tourism. Pre- or post-water treatment methods that utilize passive bioengineering techniques, including riparian area management, can significantly reduce water treatment costs, thereby avoiding some of the costs associated with engineered water treatment plants, which are extremely expensive.

Custom and Culture:

Fishing, hunting, canoeing, boating, ice skating, and other recreational activities done on water and in riparian areas have long been a tradition in Daggett County. Cutting and selling ice was a historical industry utilizing the Green River and other waterbodies. Today, electricity generated by hydropower contributes to the energy supply and economy of the region. Even the building of bridges is and has been a celebrated event, as documented in historical photos and recent ribbon cuttings.

Supporting Policies and Objectives:

Position statements on water resources (section 8.5).

Objectives:

1. Inventory and map riparian areas so that appropriate measures can be taken to protect or avoid impacts to them, when possible.
2. Conserve and protect riparian areas through application of best management practices.
3. Support the establishment of riparian buffer areas, which not only protect riparian plant and animal species but also protect aquatic systems and water quality associated with them.
4. Participate in state and local riparian planning opportunities, e.g., Duchesne River Watershed Restoration Plan, as a way to prioritize water quality enhancement and water resource protection projects, and identify funding sources.
5. Support the treatment of invasive species, e.g., Phragmites, tamarisk, and Russian olive, which can degrade habitat value and impact groundwater levels.

6. Use naturalized flow management regimes from dams or other impoundments to enhance aquatic and riparian habitat along waterways, where appropriate, and not in conflict with human habitation.
7. Increase cover and extent of native riparian vegetation

Related Resources and Uses:

-Livestock and Grazing
-Wild & Scenic Rivers
-Ditches and Canals
-Irrigation
-Agriculture
-Water Rights
-Water Quality & Hydrology
-Wetlands
-Floodplains & River Terraces
-Wildlife
-Noxious Weeds
-Fisheries
-Recreation and Tourism
-Fire Management
-Land Use

Threatened, Endangered & Sensitive Species

This resource is defined as species of plants, animals, and other living organisms which are, to some degree, threatened by extinction.

Findings:

The Endangered Species Act (ESA) directs all federal agencies to work to conserve endangered and threatened species and to use their authorities to further the purposes of the ESA. Animal or plant species are classified as endangered, threatened, or candidate species.

The Western Association of Fish and Wildlife Agencies consider nearly half of the lands in Daggett to be of the "most crucial" habitat for terrestrial and aquatic species (Western Association of Fish and Wildlife Agencies 2015).

The State of Utah maintains its own sensitive species list, pursuant to Utah Administrative Code R657-48. By rule, wildlife and plant species that are federally listed candidates for federal listing, or for which a conservation agreement is in place, automatically qualify for the list. The additional species on the Utah sensitive species list—wildlife and plant species of concern—are those species for which there is credible scientific evidence to substantiate a threat to continued population viability. It is anticipated that wildlife and plant species of concern designations will act as an "early warning" system to identify species for which conservation actions are needed. Species on the State of Utah sensitive species list are not protected by any special state regulations.

The BLM, and the USFS both maintain their own lists of species for the lands they administer, using their own criteria. These agencies have their own policies and objectives for managing wildlife populations.

In 1997, as part of the state water tax, the Utah Legislature created the Endangered Species Mitigation Fund (ESMF) which significantly expanded the funding base for conservation of wildlife and plant species which are designated as Utah Sensitive Species or are ESA-listed. "The fund makes it possible for Utah land and water developers to continue responsible economic growth and development throughout the state while providing for the needs of various wildlife species. Through innovative, cooperative partnerships funded by the ESMF, state wildlife managers are working to create conservation and habitat agreements aimed at down-listing existing threatened and endangered species and avoiding the listing of other sensitive species. The ESMF provides a stable, nonlapsing revenue base which addresses

the needs of Utah communities, local government and citizens who have struggled financially to comply with the requirements of federal law" (Utah Division of Water Resources 2016).

"White-tailed prairie dogs are widely distributed and abundant within their range in Utah. Occupancy has remained relatively stable since 2008 survey efforts. White-tailed prairie dogs are found in eastern Utah, northwestern Colorado, Wyoming, and a small area in southern Montana. Though the species' current range is similar to its historic range, there is evidence that the species abundance has declined as a result of control efforts and plague. In Utah active colonies are found in Rich, Summit, Daggett, Uintah, Duchesne, Carbon, Emery, and Grand Counties with 473,843 ha considered suitable for prairie dogs" (UDWR 2015).

"Under the Endangered Species Act, the U.S. Fish and Wildlife Service is required to identify species of plants and animals that are endangered of becoming extinct or threatened by their potential for becoming endangered... BLM is required to manage habitats for such species in a manner that would promote their recovery" (U.S. Fish & Wildlife Service 2015).

Economic Considerations:

Much of the funding for conservation activities comes from hunter and angler license fees and habitat stamps, as well as federal excise taxes on shooting, boating, and fishing equipment. These sources may indirectly benefit some "non-game" species, but in general funding is harder to come by for these species.

The ESA prohibits consideration of economic impacts when determining whether to list a species, but it does require consideration of economic impacts when designating critical habitat.

In 2013 the USFWS and the National Marine Fisheries Service issued a final rule regarding how and when agencies evaluate the economic impacts of critical habitat designation.

Designated Species and Habitats:

The following are federally listed threatened and endangered species that exist inside of Daggett County, as of March 2017:

Birds

- Yellow-billed cuckoo (Coccyzus americanus)

Fish

- Humpback chub (Gila cypha)
- Bonytail chub (Gila elegans)
- Colorado pikeminnow (Ptychocheilus lucius)
- Razorback sucker (Xyrauchen texanus)

Plants

- Ute ladies'-tresses (Spiranthes diluvialis)

Mammals

- Canada lynx (Lynx canadensis)
- Black-footed ferret (Mustela nigripes)

Other sensitive species identified by the State of Utah, BLM, or USFS, are not listed here.

"Utah is home to at least 600 rare vascular native plant species (and subspecies/varieties) including some 25 species that are federally listed as endangered or threatened under the Endangered Species

Act of 1973. The 600 taxa represent almost 19% of our currently known flora. Of those, some 180 or almost 6% have been ranked by our rare plant committee as of "extremely high" or "high" concern. Many of these are highly restricted endemics (Utah has 475 endemics, i.e. geographically restricted, with 420 of those only occurring in Utah). Only a handful of states (Hawaii, California, Arizona, Florida, Texas and Oregon) are believed to have as many or more rare plant species as Utah. And this number is growing, since every year new species are still being discovered or recognized" (Utah Native Plant Society n.d.).

Custom and Culture:

Species extinctions in the late 19th century and early 20th century triggered national awareness and response in the form of active wildlife and plant management.

For more than a century, local farmers, ranchers and hunters have managed the lands of Daggett county for long term biological diversity

Supporting Policies and Objectives:

Position statements on introduced, threatened, endangered, and sensitive species, recovery plans, and experimental populations (section 8.5).

Objectives:

1. Avoid listings of species as threatened or endangered or designation of critical habitats under the ESA.
2. Delist special-status species and designated critical habitats that were erroneously listed (e.g., listed based on incorrect data or assumptions) and/or that are no longer threatened and endangered species or sensitive based on criteria established by BLM, USFS, or the State of Utah. Based on their observed local abundance, Daggett County believes that the following species may have been erroneously listed under the ESA:
    - Pariette cactus (Sclerocactus brevispinus)
    - Ute ladies'-tresses (Spiranthes diluvialis)
3. Reduce the impacts of endangered and sensitive species listing (which typically include land use restrictions) on private lands and of multiple-use management of public lands.
4. Avoid special management of lands and associated land use restrictions associated with reintroduction of large predators that are listed as threatened or endangered (e.g., gray wolf (Canis lupis), grizzly bear (Ursus arctos), and Canada lynx (Lynx canadensis).
5. Minimize the land use restrictions associated with any reintroduction of large predators that are listed as threatened or endangered.
6. Ensure federal agencies accurately inventory threatened, endangered, and sensitive species across all state, and federal lands.

Related Resources and Uses:

-Wildlife
-Land Use
-Fisheries
-Livestock and Grazing
-Noxious Weeds
-Fire Management

Water Quality and Hydrology

Water quality is the condition of water based on biological, chemical, and physical properties. Hydrology is the science of the distribution, effects, and properties of water.

Findings:

Hydrology

The hydrologic cycle describes movement of water on earth. Some of the processes by which water moves include: precipitation, infiltration (soil moisture and groundwater), and streamflow. In order to account for the distribution of water within a specific area, it is necessary to consider these processes. The watershed is one measure used to quantify and analyze water and its effects at a specific location. A watershed, or drainage basin, is an area of land in which all water within drains to the same outlet. Watersheds are home to a variety of plant life including: bacteria, grasses, forbs, shrubs, and trees. Additionally, the watershed ecosystems in Utah support protozoa, invertebrates, amphibians, reptiles, fish, birds and mammals.

The basin experiences four distinct seasons with a major portion of the precipitation occurring as snow in the mountain regions during the winter months and producing high runoff during the spring snowmelt period. The basin receives an average 15.6 inches of precipitation annually (Utah Division of Water Resources 2016). Seasonal melting of mountain snowpack produces runoff flows that recharge groundwater aquifers and refill reservoirs. Water flows also support sediment transport, channel maintenance, and riparian vegetation. Spring rain contributes minimally to reservoir storage but does play a role in determining the timing of reservoir water use. Low flows or dry conditions generally occur in the late summer which can result in many water quality issues.

“The Uintah Basin is divided into two primary drainages — the north slope and the south slope of the Uinta Mountains. The north slope is bounded by the Uinta Mountains to the south, the Wyoming border to the north, the Colorado border to the east, and the Bear River Basin to the west. . . The north slope of the Uinta Mountains has many small streams, such as Blacks Fork, Smiths Fork, Henrys Fork, Beaver Creek(s), Burnt Fork, [Birch Creek] and Sheep Creek. These streams flow north into Wyoming on the way to the Green River. Some of this water is used for irrigation and municipal and industrial purposes in Wyoming and Utah” (Utah Division of Water Resources 2016).

As water enters and flows through a watershed, a fraction of the water infiltrates into the ground and recharges underground aquifers. Groundwater from wells is also a critical resource for culinary and agricultural water supplies. “Many creeks flow down to the Green River, and their drainages have been magnets for human activity. The valley of Henrys Fork, the Lucerne Valley, and Browns Park have historically been the important local areas of human settlement” (Johnson et al. 1996)

The Uintah mountain range receives slightly more than the statewide average of 13 inches. Much of this rainfall is captured inside the Flaming Gorge Reservoir. While much of the water is stored, a significant amount is released to satisfy water needs downstream.

Water Quality

“The two main issues that adversely affect the water quality in Daggett County are salinity and sediment. With the inclusion of Daggett to the salinity control programs, progress has begun to be made in these areas. Pipelines and sprinkler systems are being used to improve water quality and quantity” (Daggett Conservation District 2012).

"In recent decades more attention has been given to minimizing negative impacts while putting water to beneficial use. Considerable effort and expense has been made mitigating past mistakes and repairing damaged ecosystems. In many instances it has been found that working in this manner is more beneficial in the long run. More than ever, today's water planners and managers are aware of the potential impacts water development can have and are working to create plans and strategies that minimize impacts" (Utah Division of Water Resources 2016).

In Utah, water quality is regulated by the state based on the source of pollutants entering waterways, defined as either "point source" or "nonpoint source" pollution. Point sources (PS) discharge pollutants directly into a waterbody, usually through pipes or ditches originating from industries or waste treatment plants. Nonpoint sources (NPS) are pollution sources that do not originate from distinct locations and tend to vary in time and space. Nonpoint source pollution occurs when runoff from rainfall or snowmelt pick up pollutants from the human and natural landscape and transport them indirectly to a waterbody.

Water quality characteristics include:

- Conductivity
- Dissolved oxygen
- Nutrients
- pH
- Suspended solids
- Water temperature
- Turbidity

Point source pollutants are highly regulated under the Clean Water Act of 1972 and Water Quality Act of 1987 through the issuance of permits and possible fines if permit requirements are not met. The United State Environmental Protection Agency (EPA) issues discharge permits within the National Pollutant Discharge Elimination System (NPDES). In Utah, the State of Utah was granted primacy by EPA to manage the NPDES permitting program as the Utah Pollution Discharge and Elimination System (UPDES) and is operated by the Utah Department of Environmental Quality (DEQ) Division of Water Quality (DWQ).

Browne Lake is located in the southern portion of the Upper Green-Flaming Gorge Reservoir watershed (HUC 14040106) in the Uinta Mountains of northeastern Utah (Figure 1-1). The lake has been placed on Utah's 2000 303(d) list for total phosphorus and dissolved oxygen impairments (Utah Division of Water Quality 2003).

Economic Considerations:

In 2011, recreational fishing in Utah's lakes, streams, and rivers brought in $259 million. This includes the cost of equipment and multipliers like lodging, retail purchases, and dining in restaurants. Fishing relies on good water quality and hydrology (Kim and Jakus 2013). In 2012, a study of outdoor recreation found that $1.2 billion was spent for water related activities in Utah (Southwick Associates 2013). It is more cost effective to protect the water resource at its source and prevent contamination than to treat it in a wastewater treatment plant. "Nationwide, every $1 spent on source water protection saves an average of $27 in wastewater treatment costs" (Utah Division of Water Quality 2013).

Prepare60, a center established by four water conservancy districts in Utah, published a 2014 report illustrating that $17.9 billion spent on water infrastructure maintenance alone enables $5.4 trillion in

ongoing economic activity. An investment in water resources of $15 billion would create 930,000 new jobs, $93 billion in incremental economic output, and $71 billion in additional personal income (Aguero 2014).

Custom and Culture:

For thousands of years the water resources in Daggett County have sustained an abundant fish and wildlife population. Native Americans, as well as more modern immigrants to the basin, relied heavily on these resources for sustenance. Today, the water resources of Daggett County are used for agricultural irrigation, municipal needs, industrial needs, recreational needs as well as the other adjudicated rights as per the Colorado River Compact and the various treaties. This precious resource hats been, and always will be, the lifeblood of Daggett County.

Supporting Policies and Objectives:

Position statements on water quality (section 8.5).

Objectives:

1. Maintain or improve water quality to protect the health and sustainability of county residents and the desirability of Daggett County as a place to visit and recreate.
2. Support ongoing water quality and quantity monitoring to inform water and land management activities that protect surface water and groundwater.
3. Manage lands and watersheds for optimal water yield.
4. Integrate multiple strategies for meeting future water demands not limited to conservation, conversion, water transfers, water development, conjunctive use of surface and ground water, aquifer storage and recovery, secondary irrigation systems, cooperative agreements (arrangements with other water suppliers to share/lease their excess supplies), and water reuse (recycling wastewater effluent).
5. The high quality of Ashely National Forest water should not be impaired.
6. Take an active role in federal, state, and local water resource management processes.

Related Resources and Uses:

-Land Use
-Fire Management
-Wild & Scenic Rivers
-Wetlands
-Water Rights
-Ditches and Canals
-Irrigation
-Livestock and Grazing
-Riparian Areas
-Recreation and Tourism
-Fisheries
-Threatened, Sensitive & Endangered Species
-Agriculture

Water Rights

A water right is a right to the use of water based upon 1) quantity, 2) source, 3) priority date, 4) nature of use, 5) point of diversion and 6) physically putting water to beneficial use (UDWRi definition).

Findings:

Water is a finite, but renewable resource, and because of varying annual supplies of water, its availability is subject to competition between stakeholders. The coordination of demand to supply water

to Daggett County's various interests is expected to always be a complex issue for stakeholders. Water is a resource taken from a dynamic, natural system resulting from a fluctuating cycle. Networks of moving water, above and below ground, extend beyond obvious topographic or political boundaries. Therefore, management and use of water supplies requires coordination between the various jurisdictions of local, state, and federal entities.

"All waters in Utah are public property. A "water right" is a right to divert (remove from its natural source) and beneficially use water. The defining elements of a typical water right will include:

- A defined nature and extent of beneficial use;
- A priority date;
- A defined quantity of water allowed for diversion by flow rate (cfs) and/or by volume (acre-feet);
- A specified point of diversion and source of water;
- A specified place of beneficial use."

  Source: (Utah Division of Water Rights 2011)

"Rights for water diversion and use established prior to 1903 for surface water or prior to 1935 for ground water can be established by filing a "diligence claim" with the Division. Such claims are subject to public notice and judicial review and may be barred by court decree in some areas of the state" (Utah Division of Water Rights 2011).

"All other rights to the use of water in the State of Utah must be established through the appropriation process administered by the Division of Water Rights. The steps to this process for an "Application to Appropriate Water" are as follows:

- An Application to Appropriate Water is filed with the Division.
- The application is advertised and protests may be received and a hearing may be held.
- The State Engineer renders a decision on the application based upon principles established in statute and by prior court decisions.
- If the application is approved, the applicant is allowed a set period of time within which to develop the proposed diversion and use water. When the diversion and use are fully developed, the applicant retains the services of a professional engineer or land surveyor who files "proof" documentation with the Division showing the details of the development.
- Upon verification of acceptably complete proof documentation, the State Engineer issues a Certificate of Appropriation, thus "perfecting" the water right."

  Source: (Utah Division of Water Rights 2011)

"Many areas of the state are administratively "closed" to new appropriations of water. In those areas, new diversions and uses of water are established by the modification of existing water rights. Such modifications are accomplished by the filing of "change applications." These applications are filed and processed in a manner very similar to that described above for Applications to Appropriate Water" (Utah Division of Water Rights 2011).

"Water appropriation issues in specific geographic areas of the state are often administered using policies and guidelines designed to address local conditions. These policies and guidelines are generally developed for all or part of a defined Drainage Basin" (Utah Division of Water Rights 2011).

"The State Engineer has adopted procedures for enforcing water rights violations. Under the new enforcement procedure, an action is initiated by the Division of Water Rights (DWR) after a violation has been observed by an official working in the DWR or another capacity for the state, or after a complaint

is received from a water user, government agency, or other interested party. Private water users can report violations" (Donaldson, F. J. 2007).

Economic Considerations:

Although water rights are the right to use appropriated water within the requirements of a given beneficial use, water rights are classified as "real property" in the State of Utah and are bought and sold much like real estate.

Custom and Culture:

"The Utah pioneers, in the late 1840's, were the first Anglo- Saxons to practice irrigation on an extensive scale in the United States. Being a desert, Utah contained much more cultivable land than could be watered from the incoming mountain streams. The principle was established that those who first made beneficial use of water should be entitled to continued use in preference to those who came later. This fundamental principle was later sanctioned in law, and is known as the Doctrine of Prior Appropriation. This means those holding water rights with the earliest priority dates, and who have continued beneficial use of the water, have the right to water from a certain source before others with water rights having later priority dates" (Utah Division of Water Rights 2011).

"In the early territorial days, rights to the use of public streams of water were acquired by physical diversion and application of water to beneficial use, or by legislative grant. A "county courts" water allocation system was enacted in 1852 and was in effect until 1880 when it was replaced by a statute providing for county water commissioners" (Utah Division of Water Rights 2011).

Immediately upon their arrival, pioneer settlers in Utah began diverting and damming water for agricultural cultivation. Brigham Young declared in 1848 that streams were not to be privately owned and that they belong to all people. Local church leaders, bishops, were responsible for diverting water equitably for the benefit of the community. Bishops often delegated water management to watermasters. Later, municipal and county governments assumed these responsibilities. "In 1852 the territorial legislature delegated control over streams to county governments" (Donaldson, F. J. 2007).

"In this early system, the role of the watermaster was very important. The watermaster delivered water by a system of rotation; water was delivered to a user for a certain length of time according to the user's needs. The watermaster oversaw ditch repairs by requesting labor from water users in proportion to the amount of water supplied to them. The watermaster arbitrated water disputes, but his decision could be appealed to county or municipal authorities" (Donaldson, F. J. 2007).

It is the custom and culture of Daggett County to protect and preserve water rights.

Supporting Policies and Guidelines:

Position statements on water resources (section 8.5).

Objectives:

1. Balance water resource allocation among beneficial uses, e.g., agricultural, recognizing that growing populations will require larger portions of municipal and industrial water and an increased interest in water-based recreation.
2. Ensure that allocation of water resources is administered under applicable Utah laws and Prior Appropriation Doctrine.

3. Integrate multiple strategies for meeting future water demands not limited to conservation, conversion, water transfers, water development, conjunctive use of surface and ground water, aquifer storage and recovery, secondary irrigation systems, cooperative agreements (arrangements with other water suppliers to share/ lease their excess supplies), and water reuse (recycling wastewater effluent).

Related Resources and Uses:

-Water Quality & Hydrology -Ditches and Canals -Irrigation

Wetlands

A wetland is defined as land or areas (such as marshes or swamps) that are covered often intermittently with shallow water or have soil saturated with moisture.

Findings:

Wetlands have been defined in different ways by numerous entities and agencies. However, the US Army Corps of Engineers (Corps) and the US Environmental Protection Agency (EPA) jointly define wetlands as: "Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that do under normal circumstances support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." This definition of wetlands is perhaps the most relevant to local land managers and planners because the Corps and the EPA are the agencies that have legal jurisdiction over wetlands, including those wetlands on private property. Wetlands provide numerous benefits including wildlife habitat, aquifer recharge, and water quality improvements (U.S. Environmental Protection Agency 2015).

According to the Utah Wetland Information Center, 1% of Utah's landscape is wetlands (Utah Geological Survey. n.d.). Wetlands are among the most productive ecosystems in the world, comparable to rainforests (U.S. Environmental Protection Agency 2015). The primary factor that distinguishes wetlands from other land forms or water bodies is the characteristic vegetation of aquatic plants, adapted to the unique hydric soil. Wetlands have the ability to improve water quality by acting as filters. In addition, wetlands can lessen the effects of flooding by containing stormwater and releasing it gradually. Because these critically productive systems are a scarcity in the region, special emphasis is necessary for their management.

Daggett County has 21,393 acres of nationally identified wetlands (US Fish and Wildlife Service 2015).

Best management practices for wetlands include protection of existing wetlands through zoning and other land-use designations, restoration of historic wetlands, proper management of wetlands, creation of new wetlands in appropriate areas.

The Army Corps of Engineers and the EPA have strict guidelines for any activities occurring on or near a wetland. Impacts to wetlands can require permits from federal, state, and local agencies.

Economic Considerations:

Wetlands provide recreational value as well as ecological, social or economic value.

Possibly the most significant economic and social benefit of wetlands is flood control, but wetlands also provide essential functions in filtering water/improving water quality and providing habitat for waterfowl and other wildlife (World Wildlife Fund 2004). Wetlands also recharge aquifers.

From a regulatory standpoint, certain bodies of water and associated wetlands are regulated by the EPA and the US Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act (CWA), even on private property. Activities that involve excavation or placement of fill in jurisdictional waters or wetlands require a permit issued by the Corps and may be reviewed by EPA. The extent of jurisdiction is determined on a project-by-project basis in consultation with the Corps.

Custom and Culture:

Wetlands are important for the ecological and water quality value they add to the environment.

Supporting Policies and Guidelines:

Position statements on water resources (section 8.5).

Objectives:

1. Identify high-priority or ecologically sensitive wetland areas for conservation.
2. Track changes and updates in federal regulations that affect wetland jurisdiction and permitting to avoid overreach by the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers.
3. Support wetland conservation through planning and management.
4. Track changes and updates in federal regulations that affect wetland jurisdiction and permitting to avoid overreach by the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers.

Related Resources and Uses:

-Land Use
-Agriculture
-Wild & Scenic Rivers
-Water Quality & Hydrology
-Water Rights
-Ditches and Canals
-Irrigation
-Livestock and Grazing
-Riparian Areas
-Recreation and Tourism
-Noxious Weeds

Wild and Scenic Rivers

This resource is in reference to the administrative designation created under the National Wild and Scenic Rivers Act of 1968 applied to preserve certain free- flowing rivers that “possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values”.

Findings:

The Wild and Scenic Rivers Act (1968) is notable for preserving the special character of rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection.

Under the Wild and Scenic Rivers Act (1968), rivers are classified as wild, scenic, or recreational:

- *Wild River Areas*: Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
- *Scenic River Areas*: Those rivers or sections of rivers that are free of impoundments, have shorelines or watersheds still largely primitive and shorelines largely undeveloped, but are accessible in places by roads.
- *Recreational River Areas*: Those rivers or sections of rivers that are readily accessible by road or railroad, may have some development along their shorelines, and may have undergone some impoundment or diversion in the past.

Section 5(d)(1) of the Wild and Scenic Rivers Act (1968) directs federal agencies to identify potential additions to the National Wild and Scenic Rivers System through federal agency plans. Under these provisions, federal agencies study the suitability of river sections they manage for designation under the Wild and Scenic Rivers Act. Sections that are determined to be suitable can be managed to preserve their suitability by an agency land management plan while awaiting congressional designation.

Designating river segments as wild, scenic, or recreational would restrict many activities related to the stream and other uses within 0.25 mile of it, and in some cases, these designations could be detrimental to users' ability to develop and manage water resources necessary to meet future growth needs. The ability to obtain approval for water right change applications on, or upstream of, designated streams by existing water users may also be limited. Similarly, federal permits cannot be issued for uses on a stream segment that would be in conflict with the wild and scenic designation.

Designation of wild and scenic rivers may result in non-use, restricted use, or environmental impacts on public and private lands. These restrictions may prohibit future uses that are necessary to continue to assure economic prosperity or may adversely affect the operation, management, and maintenance of existing facilities.

In 2008, the BLM and USFS published recommendations for rivers in Daggett County that would be suitable for scenic designation. The areas consist of 12 miles stretching from the Upper Green River to the state line, and 13 miles from the Flaming Gorge Dam to the Ashley National Forest boundary (BLM 2008 and USFS 2008). These river sections are currently managed to preserve their wild or scenic values while awaiting congressional action.

Wild and Scenic Rivers are designated by Congress or the US Secretary of the Interior. To be eligible for designation, a river must be free-flowing and contain at least one "outstandingly remarkable" value (scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar value). Designated rivers are typically managed by federal agencies, but can also be managed by partnerships of adjacent communities, state governments and the National Park Service allowing communities to protect their own outstanding rivers and river- related resources.

Economic Considerations:

At present the economic implications of Wild and Scenic River designation are not totally understood, nor quantifiable. The tradeoff between increases in recreation and tourism sectors and the potential economic loss of future river development should be considered. An analysis of Wild and Scenic River designation done by Utah State University, made some observations: primary impacts of designation relate to a reduction in the grazing in riparian areas; and other impacts include further regulations on adjacent public and private land uses (Keith J., et al. 2008).

Custom and Culture:

Where citizens of Daggett County are not responsible for the designation or management of Wild and Scenic Rivers, and as there is only a short history (since 1968) of this designation in the US, no custom or culture can be associated with the federal designation "Wild and Scenic Rivers" at this time; however, county residents maintain that rivers in general are an integral element of sustaining and improving the health of the regional economy and ecology. Citizens of Daggett County have always prized rivers for their aesthetic, ecological, recreational, and hydropower value. Managing rivers for multiple uses has historically been, and continues to be, a tradition based on facilitating many users and values.

Existing Policies and Guidelines:

The 2008 Vernal RMP recommended segments of the Upper Green River from Little Hole to the Utah State line to be managed as scenic. Under this management, new water diversions are prohibited which in turn constrains development of the Green River water allocated to the State of Utah when the Flaming Gorge Reservoir was authorized. It also limits changes in points of diversion or use along this segment for existing water rights.

Daggett County opposes the designation and the continued management. BLM has ample authority to protect scenic values under its visual resource management guidelines and to protect the recreation values. The continued management as a scenic river absent congressional approval interferes with state water rights and existing water rights.

Position statements on wild and scenic rivers (section 8.5).

Objectives:

Avoid designating rivers as wild and scenic if the designation would adversely affect the economic interests of the county, including enjoyment of private property rights, mineral extraction, timber harvest, agriculture, water rights, water storage, or water delivery.

Manage rivers and river corridors not designated as wild and scenic by U.S. Congress but deemed suitable based on the multiple-use and sustained-yield management standard prescribed in Federal Land Policy and Management Act of 1976.

Ensure that any designation of rivers as wild and scenic supports the economic interests of the county

Related Resources and Uses:

-Recreation and Tourism
-Land Use
-Livestock and Grazing
-Irrigation
-Ditches and Canals
-Water Rights
-Water Quality & Hydrology
-Wetlands
-Floodplains & River Terraces
-Riparian Areas
-Fisheries
-Wildlife
-Threatened, Sensitive & Endangered Species

Wilderness and Wilderness Study Areas

According to the Wilderness Act of 1964, wilderness is defined "as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which

(1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable;
(2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation;
(3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and
(4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Findings:

Many people use "wilderness" to describe any remote, rugged and undeveloped land. The term "wilderness" is a legal definition created under the Wilderness Act of 1964 applied to specific parcels of public lands with certain characteristics as designated by an Act of Congress. Wilderness designation enables preservation and protection of "Federal lands retaining primeval character and influence" and as such severely limits consumptive, motorized, and mechanized uses. To qualify for wilderness designation, lands must be at least 5,000 acres of contiguous roadless area, or sufficient size as to make practicable its preservation and use in unimpaired condition, primarily natural in character with human impacts substantially unnoticeable, provide opportunities for solitude, and after the first three criteria are met, may contain other supplemental values such as ecological, educational, geological, historical, scenic, or scientific values.

Economic Considerations:

The economic effect of wilderness designation is the subject of ongoing debate. For example, when several proposals were made in the early 1990s to increase acres of wilderness in Utah, a 1992 Government Accountability Office (GAO) study investigated a claim that designating 3.2 million acres of land as wilderness in Utah would cost the state $9.2 billion annually in future earnings. The debate over the economic impact of designating wilderness areas continues in Utah. An unpublished report from Utah State University in 2010 investigated contradictory claims about the economic impact of designating wilderness areas in Utah (Yonk et al. 2010).

Economic considerations of wilderness designation should include:

- Mineral and energy development potential
- Logging and forest products
- Livestock Grazing - grazing is allowed in wilderness areas but must meet wilderness guidelines.
- Private and State land inholdings
- Land transfers
- Motorized recreational uses

Federal wilderness designation is a legislative action by Congress that typically follows a comprehensive National Environmental Policy Act (NEPA) planning process. In general terms, wilderness designation begins with the adoption of agency planning documents.

Custom and Culture:

Part of Daggett County's culture is outdoor oriented with residents recreating in a variety of ways, this includes the use of motorized, mechanized, and all-terrain vehicles where appropriate. Managing lands and providing adequate access for multiple uses has historically been, and continues to be, a tradition based on accommodating persons with disabilities and facilitating a diverse range of local values.

County Ordinance Regarding Wilderness and Related Special Designations:

The impact of wilderness designations is felt the strongest by the residents of the County. For this reason, the county has created specific objectives, policies and guidelines for: national conservation areas (NCAs), wilderness study areas (WSAs), BLM wilderness reinventory areas, Forest Service inventoried roadless conservation areas, citizen wilderness proposals, national monuments, non-WSA lands inventoried for alleged wilderness characteristics, areas of critical environmental concern (ACECs), and any other designation, classification categorization, withdrawal, or similar action that has the purpose or effect of eliminating, restricting, or reducing energy and mineral development, motorized travel and recreation, livestock grazing, active vegetation management, or any other traditional multiple use on public lands.

Standards and Criteria

The BLM and Forest Service land use plans for public lands in Daggett County should produce planning documents consistent with Daggett County's resource management plan to the maximum extent consistent with federal law and FLPMA's purposes, and that reflect the following values:

- Preserve traditional multiple use and sustained yield management on the subject lands to:
    a. Achieve and maintain in perpetuity a high-level annual or regular periodic output of agricultural, mineral, and various other resources from the subject lands;
    b. Support existing transportation, mineral, and grazing rights in the subject lands at the highest reasonably sustainable levels;
    c. Produce and maintain the desired vegetation for watersheds, timber, food, fiber, livestock forage, wildlife forage, and minerals that are necessary to meet present needs and future economic growth and community expansion in Daggett County where the subject lands are situated without permanent impairment of the productivity of the land;
    d. Meet the recreational needs and the personal and business-related transportation needs of the citizens of each county where the subject lands are situated by providing access throughout each such county;
    e. Meet the needs of wildlife, provided that the respective forage needs of wildlife and livestock are balanced according to the provisions of subsection 63J-4-401(6) (m);
    f. Meet the needs of community economic growth and development;
    g. Provide for the protection of existing water rights and the reasonable development of additional water rights, while meeting the habitat needs of fish;
    h. Ensure continued motorized access using existing roads and trails within the County to federal, private and state lands for all purposes including recreation, commerce, and to ensure access to and through Daggett County to Colorado, Wyoming and adjacent Utah Counties; and

i. Provide for reasonable and responsible development of electrical transmission and energy pipeline infrastructure on the subject lands.

- The BLM and Forest Service:
  1. Should not designate, establish, manage, or treat any of the subject lands as an area with management prescriptions that parallel, duplicate, or resemble the management prescriptions established for wilderness areas, roadless areas or wilderness study areas (WSAs), including the nonimpairment standard applicable to WSAs or anything that parallels, duplicates, or resembles that non- impairment standard;
  2. Lack congressional authority to manage federal lands, other than congressionally authorized WSAs, and to manage roadless areas on the National Forests, as if they are or may become wilderness;
  3. Lack authority to designate geographic areas as lands with wilderness characteristics or designate management prescriptions for such areas except the procedures followed when the Forest Service completed its roadless area review in 1980 and Congress released non-wilderness lands in 1984 or when the BLM completed its WSA review in 1991.
  4. Lack authority to manage the subject lands in any manner other than to prevent unnecessary or undue degradation for public lands or to avoid impairment of the lands' productivity for National Forest System lands, unless the agencies use tools expressly identified in their respective organic legislation and do so pursuant to duly adopted regulations and provisions of a resource management plan, which are consistent with the applicable provisions of their respective organic legislation;
  5. Should conduct wilderness characteristics inventories solely for the purpose of information gathering and not to be used as a basis to change land management. Any inventories shall be closely coordinated with inventories for those characteristics conducted by state and local governments, and should reflect a consensus among those governmental agencies about the existence of wilderness characteristics; and
  6. Should consult and coordinate closely with Daggett County at all times.

- Even if the BLM or Forest Service were to properly inventory an area for the presence of wilderness characteristics, including roads and trails, those agencies still lack authority to make or alter project level decisions to avoid impairment of any wilderness characteristics without express congressional authority to do so.
- Managing federal lands for "wilderness characteristics" or "roadless characteristics" without express congressional authorization circumvents the statutory wilderness process and is inconsistent with the multiple-use and sustained-yield management standard that applies to all lands managed by the Bureau of Land Management and U.S. Forest Service that are not congressionally authorized wilderness areas, wilderness study areas or Forest Service wilderness.
- Daggett County's ongoing policy is to oppose new wilderness proposals and proposals to manage land as de-facto wilderness or to protect alleged for wilderness characteristics.
- Daggett County's policy is to oppose any additional evaluation of national forest service lands as "roadless" or "unroaded" beyond the Forest Service's second roadless area review evaluation completed in 1979 and resolved by Congress in 1984 when it released the RARE II areas to multiple use. Daggett County further opposes efforts by agencies to specially manage those areas in a way that:
  1. Closes or declassifies existing roads unless multiple side-by-side roads exist running to the same destination and the State and Daggett County consent to close or declassify the parallel roads;

2. Bars travel on existing roads;
3. Excludes or diminishes traditional multiple-use activities, including grazing and proper forest harvesting;
4. Interferes with the enjoyment and use of existing rights,
5. including water rights, local transportation plan rights,
6. R.S. 2477 rights-of-way, grazing allotment rights, and
7. mining or mineral leasing rights; or
8. Prohibits development of additional roads reasonably necessary to pursue traditional multiple-use activities; or
9. Burdens vegetation management to reduce fuel loads and restore the forest land.

- The American Antiquities Act of 1906, 16 U.S.C. 431-433, is abused and violated both in the spirit and letter of that law, when it is used to designate large areas of land as national monuments. To quote the Antiquities Act itself, the designation is authorized only for "historic landmarks, historic structures, and other objects f historic or scientific interest." The limits of any land parcels reserved as part of those designations "in all cases shall be confined to the smallest area compatible with proper care and management of the objects to be protected." Daggett County finds that this language clearly restricts the President's lawful authority to declare and designate as national monuments only specific and pinpointed historic landmarks, and only specific and pinpointed historic and prehistoric structures, and only specific and pinpointed other specific objects of historic or scientific interest.
- From this language Daggett County finds that national monument designations under the Antiquities Act should not be used as a substitute for valid Congressional action on wilderness or NCA, ACEC and like designations. Rather, Antiquities Act national monuments are intended by law to protect minimal isolated locations with such additional land for facilities, like parking lots, viewing turnouts, buffer areas for fencing and other security, as are minimally necessary to facilitate the public's viewing and appreciation of such sites without destroying them, etc. Though not in Daggett County, it is observed that the size and extent of the Grand Staircase Escalante National Monument in Kane and Garfield Counties is a prime example of a blatant abuse and violation of the Antiquities Act. That designation entirely ignored the Act's language about landmarks, structures and objects and was adopted solely to stop a coal mine with long-term, devastating impacts on the two counties.
- Based on the Presidents' respective designations of national monuments since September 1996, Daggett County opposes the designation of any national monument within the county.

Proposed Designations in Daggett County:

Congressional Wilderness Designations in Daggett County

Congress released all RARE II roadless areas to multiple use in the 1964 Utah Wilderness Act.

Daggett County opposes future wilderness designation for the following areas now managed pursuant to the inventoried roadless area conservation rule, because they fail to meet the standards and criteria stated in the Wilderness Act and because they were designated in violation of statutory authority and applicable procedures.

None of the foregoing areas subject to the roadless rule on the Ashley National Forest in Daggett County meets the standards and criteria for wilderness designation, and all should be released to regular multiple use and sustained yield management.

National Conservation Areas (NCAs) in Daggett County

Daggett County opposes any future NCA designation.

Wilderness Study Area (WSA) Designations in Daggett County

The U.S. Secretary of Interior in 1980 acting pursuant to Section 603 of FLPMA, recommended the following areas of BLM lands in Daggett County to be designated as Wilderness Study Areas (WSAs) until such time as Congress should enact legislation either to designate the WSAs as wilderness or to release the WSAs back to regular multiple use sustained yield management:

- West Cold Spring WSA (3,200 acres)
- Diamond Breaks WSA (3,900 acres)

In November 1980, BLM designated two wilderness study areas (WSAs) in Daggett County, West Cold Spring, which is a small unit managed as part of Colorado BLM Cold Spring WSA, and Diamond Breaks. In 1991, the Interior Secretary recommended that Cold Spring WSA be released for multiple use and that Diamond Breaks WSA, including the Colorado portion (about 31,000 acres) be recommended for wilderness. The recommendation was submitted to Congress by President Bush in 1992 but no further action has occurred to release these areas.

In light of the history of wilderness inventory and evaluation, Daggett County supports the release of all of the WSAs and wilderness suitable areas for management under multiple use and primary uses of grazing, mineral development, rights-of- way, fish and wildlife and recreation.

None of the foregoing WSA areas on public lands in Daggett County meets the standards and criteria for wilderness designation, as they are too small to be managed independently, and all should be released by Congress back into regular multiple use and sustained yield management.

BLM Wilderness Reinventory Areas in Daggett County

In 1996, BLM initiated a second inventory without involving state or local governments or the public and identified other public lands as wilderness suitable, Cold Spring Mountain, expanded Diamond Breaks. Without Daggett County's involvement or approval, the BLM identified the following areas of BLM lands in Daggett County as so-called Wilderness Reinventory Areas and purported to manage some or all of those areas as wilderness:

- Cold Spring Mountain Reinventory area
- Diamond Breaks Expansion Reinventory area

None of the foregoing so-called wilderness reinventory areas on public lands in Daggett County meets the standards and criteria for wilderness designation, and all should be released by Congress back into regular multiple use and sustained yield management.

Forest Service Roadless Area Designations in Daggett County

The Forest Service in the 1970s pursuant to the 1964 Wilderness Act conducted a first evaluation and then by court order a second evaluation, each known as a "Roadless Area Review Evaluation" (RARE I and RARE II), to identify alleged "roadless" areas deemed suitable for proposal to Congress for wilderness designation and management. No RARE areas were identified in Daggett County except a small portion of Mt. Widdoup RARE II area.

In 1998 the Forest Service using only a desk top inventory without any Congressional authority and without Daggett County's involvement or approval, purported to conduct yet another roadless area

inventory by which they identified additional acreage, above and beyond what was identified in the RARE II inventory, as so-called "roadless" and suitable for Congressional wilderness designation. Then by administrative fiat (the so-called Clinton Forest Service Roadless Rule) the Forest Service imposed management restrictions on these so- called inventoried "roadless" areas that took away traditional access and use and seriously impaired the multiple use and sustained yield protections and standards that once applied to these areas.

Unlike previous roadless area evaluations, the Forest Service included areas with existing roads and other man-made structures. The roadless rule classification prevents logging necessary to reduce fuel loads and to restore dead and dying timber. As a result, Daggett County faces a very high risk of wildfire and pollution of its watershed.

The Ashley National Forest identified 10 areas, which are located primarily in Daggett County: Sheep Creek West, Sheep Creek East, Hideout Draw, Bare Top, Mt. Lena, Little Hole, Roadshed, North Slope, Goslin, and Grizzly Ridge. Of these, only the North Slope Area is deemed by the Forest Service to actually qualify for wilderness. None of these areas meets the roadless criteria and the rule was imposed without disclosing or analyzing for public comment on the identified parcels.

- Sheep Creek West (8,464 acres)
- Sheep Creek East (7,080 acres)
- Hideout Draw (5,777 acres)
- Bare Top (13,837 acres)
- Mt. Lena (20,321 acres)
- Little Hole (6,457 acres)
- Roadshed (34,751 acres)
- North Slope (33,066 acres)
- Goslin (11,692 acres)
- Grizzly Ridge (7,678 acres)

None of the foregoing so-called Forest Service roadless areas on public lands in Daggett County meets the standards and criteria for wilderness designation. Therefore, all should be abolished as so-called "roadless areas," all restrictions under any so-called "roadless rule" should be terminated, and those areas should go back into regular multiple use and sustained yield management.

Private Citizen Wilderness Proposals in Daggett County

Without Daggett County's involvement or approval, certain private wilderness advocacy groups over the years have identified and given their names to certain areas of public lands in Daggett County and recommended these areas as suitable for wilderness designation in addition to wilderness areas already designated by Congress. In the 2008 Vernal Resource Management Plan, BLM identified and evaluated six areas, including Mountain Home (7,083 acres), Lower Flaming Gorge (17,810 acres), Dead Horse Pass (6,994 acres), Wild Mountains (527 acres), as well as Diamond Breaks expansion (4,539 acres) and Cold Spring Mountain (8,764 acres), which expands West Cold Spring WSA. The 2008 Vernal RMP adopts de facto wilderness management for Mountain Home, Dead Horse Pass, Diamond Breaks expansion and Cold Spring Mountain over the objections of the County and the State of Utah.

None of the foregoing so-called private citizen wilderness proposals on public lands in Daggett County meets the standards and criteria for Wilderness designation. One area does not meet the minimum size of 5,000 acres and the rest include extensive roads and development.

National Monuments in Daggett County

Daggett County opposes the designation of any national monument.

Non-WSA BLM Lands in Daggett County

As set forth above, the BLM reportedly inventoried non-WSA lands, found them to have alleged wilderness characteristics, and in the latest BLM resource management plan found them to be suitable for wilderness characteristics management:

Daggett County opposes the continued wilderness characteristics management of the following non-WSA BLM lands, because those lands do not meet the standards and criteria for wilderness designation and management as stated above. BLM, moreover, lacks the legal authority to manage public lands to preserve wilderness character outside the WSAs designated in 1980. That authority pursuant to Section 603 of FLPMA expired in October 1991.

None of the non-WSA BLM lands in Daggett being managed for alleged wilderness characteristics meets the standards and criteria for wilderness designation and management under the Wilderness Act of 1964 and all should be re-classified and released for regular multiple use and sustained yield management.

Areas of Critical Environmental Concern (ACECs)

Federal law mandates that the BLM "shall manage the public lands under principles of multiple use and sustained yield, in accordance with land use plans ..., except where a tract of land has been dedicated to specific uses according to any other provisions of law it shall be managed in accordance with such law." 43 U.S.C. 1732(a). See also 43 U.S.C. 1701(a) (7) ("goals and objectives be established by law as guidelines for public land use planning, and that management be on the basis of multiple use and sustained yield unless otherwise specified by law") and 43 U.S.C. 1712(c)(1) (BLM in developing and revising land use plans "shall - use and observe the principles of multiple use and sustained yield set forth in this and other applicable law").

While the BLM must give priority to the designation and protection of ACECs when developing and revising land use plans, 43 U.S.C. 1712(c)(1), still Federal law gives the BLM no authority to designate an ACEC unless it meets the definitional requirements of the Federal Land Policy Management Act of 1976 (FLPMA), 43 U.S.C. 1702(a), which states:

"The term 'areas of critical environmental concern' means areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards"

The strict statutory criteria for specialized ACEC designation must be read in light of the fact that FLPMA already generally mandates protection of all public lands against "unnecessary or undue degradation" and incorporates all of the environmental protection laws.

"In managing the public lands the Secretary [BLM] shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." 43 U.S.C. 1732(b).

FLPMA's "unnecessary and undue degradation" protection standard, coupled with FLPMA's "sustained yield" general management standard, mean that an ACEC special designation is valid only "where special

management attention is required" above and beyond application of those general standards and other protection provided by other federal laws, such as the Threatened and Endangered Species Act, Archeological Resources Protection Act, National Historic Preservation Act or the Clean Water Act. In short the area must require special management attention above and beyond the protection assured under all applicable federal and state laws and regulations.

ACEC special designation is appropriate only if required to prevent not just any damage to relevant values, but damage that is "irreparable." 43 U.S.C. 1702(a). Moreover, the values to be protected must be "important," or significant on a regional or national basis, meaning they possess "qualities of more than just local significance and worth, consequence, meaning, distinctiveness, or cause for concern." 43 CFR 1610.7-2(a)(2).

ACEC special designation is appropriate in areas only "when such areas are developed or used or where no development is required." 43 U.S.C. 1702(a).

In support of the foregoing Federal statutory requirements, Daggett County has adopted the Utah statutory policy regarding ACECs. Pursuant to Utah Code 63J-4-401(8)(c), the County does not support ACEC designation unless it is clearly demonstrated that:

a. All the definitional requirements of 43 U.S.C. 1702(a) are met;
b. The proposed designation and management prescriptions are limited in geographic size and scope to the minimum necessary to specifically protect and prevent irreparable damage to the relevant and important values identified;
c. The proposed area is either already developed or used or no development is required;
d. The proposed area contains relevant and important historic, cultural or scenic values, fish or wildlife resources, or natural processes which are unique or substantially significant on a regional basis;
e. The regionally important values, resources or processes have been analyzed for irreparable damage and the analysis describes the rationale for any special management attention required to protect, or prevent irreparable damage to the values, resources, processes, or hazards;
f. The proposed designation is consistent with the plans and policies of the state and of the county where the proposed designation is located;
g. The proposed designation will not be applied redundantly over existing protections provided by other state and federal laws and regulatory systems, and will not be applied where not needed in addition to those specified by the other state and federal laws;
h. The difference between special management attention required for an ACEC and normal multiple-use management has been identified and justified, and any determination of irreparable damage has been analyzed and justified for short and long-term horizons; and
i. The proposed designation:
    - is not a substitute for a wilderness suitability recommendation;
    - is not a substitute for managing non-WSA areas inventoried for wilderness characteristics; and
    - it is not an excuse or justification to apply de facto wilderness management standards.

The 2008 Vernal RMP established the Red Creek Watershed ACEC and the Browns Park ACEC over the objections of Daggett County.

- Red Creek ACEC (24,475 acres) for high value waters and wildlife habitat; VRM (Visual Resource Management) Class II.

- Browns Park ACEC (18,474 acres) for scenic views, wildlife habitat, and cultural and historic resources; VRM Class II.

Daggett County concludes that both ACECs fail to meet BLM's criteria for an ACEC, because state and federal law fully protects the identified resources. The Red Creek watershed is fully protected under the Clean Water Act as delegated to the State of Utah and the wildlife habitat is not shown to be either nationally or regionally significant. Utah Division of Wildlife Resources has rules and agreements in place with BLM and the Forest Service to protect the habitat. Similarly, the Brown's Park scenic views are protected under visual resource management, and cultural and historic resources are protected under National Historic Preservation Act. The wildlife habitat is not regionally or nationally significant, and the significant habitat is reserved as a wildlife refuge (ACEC Proposals in Daggett County).

To date there are no ACEC public nominations in Daggett County that were not designated in the 2008 Vernal RMP.

Supporting Policies and Guidelines:

Position statements on wilderness and roadless designations (section 8.5).

Objectives:

Wilderness Study Areas

- All existing WSAs in Daggett County, whether set forth in the above findings or otherwise, should be permanently discontinued and released by Congress back into regular multiple use and sustained yield management.

BLM Wilderness Reinventory Areas

- All existing BLM Wilderness Reinventory Areas in Daggett County, whether set forth in the above findings or otherwise, should be permanently discontinued and placed by the BLM back into regular multiple use and sustained yield management.

Forest Service Inventoried Roadless Area Designations

- All existing Forest Service Inventoried Roadless Area Designations in Daggett County, whether set forth in the above findings or otherwise, should be permanently discontinued and placed by the Forest Service back into regular multiple use and sustained yield management

Private Citizen Wilderness Proposals

- All existing private citizen wilderness proposals in Daggett County, whether set forth in the above findings or otherwise, should not be managed by the BLM or Forest Service as if they are or may become wilderness nor for any alleged wilderness characteristics thereon.

ACECs

- BLM should revoke the ACECs based on the fact that neither one meets the need for special management criteria.
- Daggett County concludes that both ACECs fail to meet BLM's criteria for an ACEC, because state and federal law fully protects the identified resources. The Red Creek watershed is fully protected under the Clean Water Act as delegated to the State of Utah and the wildlife habitat is not shown to be either nationally or regionally significant. Utah Division of Wildlife Resources has rules and

agreements in place with BLM and the Forest Service to protect the habitat. Similarly, the Brown's Park scenic views are protected under visual resource management, and cultural and historic resources are protected under National Historic Preservation Act. The wildlife habitat is not regionally or nationally significant, and the significant habitat is reserved as a wildlife refuge.

Non-WSA BLM Lands

Wilderness characteristics management on all existing Non-WSA BLM lands with alleged wilderness characteristics in Daggett County, whether set forth in the above findings or otherwise, should be permanently discontinued and changed back to regular multiple use and sustained yield management.

Related Resources and Uses:

-Recreation and Tourism
-Land Use
-Livestock and Grazing
-Fire Management
-Noxious Weeds
-Water Quality & Hydrology
-Forest Management

Wild or Feral Horses

Findings:

Overview

No wild horse and burro herd areas exist in Daggett County. Free- roaming horses on public lands adversely impact soil, water, wildlife, and vegetative resources and increase the possibility of equine disease among domestic horses. Wild and free-roaming horses rapidly increase in population, cause overgrazing, negatively impact wildlife and livestock, and burden the land managing agency with unnecessary costs. The introduction of wild horses would adversely affect the counties' environment and economy.

Supporting Policies and Guidelines:

Position statements on wildlife (section 8.5).

Related Resources and Uses:

-Threatened, Sensitive & Endangered Species
-Predator Management
-Agriculture
-Livestock and Grazing
-Land Use
-Forest Management

Wildlife

Wildlife is defined as undomesticated animals usually living in a natural environment, including both game and nongame species.

Findings:

Overview

"Populations of many species of wildlife have declined over the past 30 years due to a variety of manmade and natural factors. Unless adequate measures are taken to recover and conserve species populations and habitats, some of these species may become federally listed in the future" (Sutter et al. 2005).

Best management practices for wildlife focus on principles and actions that allow people and wildlife to coexist, and on creating or maintaining healthy wildlife populations and habitat.

Primary control of wildlife management and planning is given to the State of Utah. The Utah Division of Wildlife Resources conducts wildlife studies and issues hunting permits. The federal government issues permits for areas in Daggett County where grazing and wildlife compete for forage.

Species management plans provide guidance and direction for a number of species in Utah. These plans are taken through a public process to gather input from interested constituents and then presented to the Utah Wildlife Board for approval. Species covered by statewide plans include wild turkey, chukar, greater sage-grouse, mule deer, elk, moose, pronghorn, mountain goat, bighorn sheep, Utah prairie dog, beaver, northern river otter, black bear, cougar, and bobcat.

Greater Sage Grouse

For the greater sage-grouse (Centrocercus urophasianus), the Conservation Plan for Greater Sage-grouse in Utah (DWR 2013a) was developed to help eliminate threats facing the greater sage-grouse while balancing the economic and social needs of Utahans through a coordinated program that provides for:

- voluntary programs for private, local government, and School and Institutional Trust Lands Administration lands; and
- cooperative regulatory programs on other state and federally managed lands.

Daggett County is host to tens of thousands of acres of Greater Sage-Grouse Habitat, both in the winter and non-winter seasons (UDWR 2015a).

Deer and Elk

In the case of mule deer (Odocoileus hemionus) and elk (Cervus canadensis nelsoni), in addition to the statewide plans required by state law, herd unit plans also have been developed for each mule deer and elk herd unit across the state. Each of these unit plans have been reviewed and approved by the Utah Wildlife Board. In many cases, herd unit plans have been revised multiple times since their initial development in the mid-1990s. The plans establish target herd-size objectives for each herd unit, which DWR and the Utah Wildlife Board then strive to meet through harvest adjustment and other mechanisms. Habitat needs and other local management considerations are also addressed in these unit plans. Portions of Daggett County are within the South Slope Deer Herd Unit #9 Management Plan (which also includes lands in Summit and Wasatch Counties) (UDWR 2015b).

On a seasonal basis, big-game animals migrate among public, and private lands. These movements create game management issues as a result of damage to private property and consumption of livestock feed by wildlife. To address these issues, the DWR plan seeks to enhance forage production through prescribed fire, pinion-juniper chaining, and conifer thinning and to protect habitat using tools such as conservation easements, conservation agreements, and cooperative wildlife management units. Utah Code 23-21-2.5 (2) states that "When changing any existing right to use the land, the division shall seek to make uses of division- owned land compatible with local government general plans and zoning and land use ordinances."

Pronghorn Antelope

DWR administers a Pronghorn Herd Management Plan, which includes acreage within Daggett County. It is the purpose of this plan to "Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, to include hunting and viewing. Balance the pronghorn population with human needs, such as authorized livestock grazing rights, private land development rights, and local economies. Maintain the population at a level that is within the long term habitat capability" (UDWR 2009).

Bison

No known populations of bison exist in Daggett County (UDWR 2009).

Bighorn Sheep

DWR through its Utah Wildlife Board adopted a Utah Bighorn Sheep Statewide Management Plan on June 4, 2013 (UDWR 2013). This plan is effective for 5 years. The plan notes that bighorn sheep are one of the most sought-after and highly prized big-game animals in North America. Demand for hunting opportunities far exceeds the supply of hunting permits. There is also great demand for bighorn sheep viewing opportunities. Bighorn sheep are an important part of fragile ecosystems in Daggett County. Rocky Mountain bighorn sheep habitat exists in the High Uintas Wilderness. The state management plan calls for augmentation of existing populations to meet management objectives in the Avintaquin Management Unit (UDWR 2013).

One of the key management issues associated with bighorn sheep is the prevention of disease that can result from contact with domestic sheep. There is also the potential for bighorn sheep to compete with domestic sheep for resources.

Economic Considerations:

The US Fish and Wildlife Service found that Utah residents and non-residents spent over $1.5 billion dollars in 2011 in Utah on recreation activities associated with wildlife. (U.S. Fish and Wildlife Service, U.S. Department of Commerce, and U.S. Census Bureau 2011).

Custom and Culture:

In the 1820s and 30s American and French trappers found many beaver and other wildlife in the area that is now Daggett County. Historic overgrazing depleted rangelands and watersheds, and of course wildlife habitat.

The process for determining the balance among competing uses and establishing the best wildlife management policies is described in state law. This process is founded on an open, public dialogue concerning wildlife issues. Five regional advisory councils (RACs) are active across Utah, each consisting

of a dozen or more individuals nominated by various interest groups and selected by the leadership of the Utah Department of Natural Resources. Council members can include citizens, local elected officials, sportsmen, agriculturists, federal land managers, and members of the public at large. The duty of each RAC is to hear input and recommendations, to gather data and evaluate expert testimony, and then to make informed policy recommendations to the Utah Wildlife Board. To fulfill this duty, the RACs hold monthly meetings.

Wildlife watching has grown in popularity in recent years. Additionally, hunting has always been a popular pastime in the area. Daggett is known for excellent hunting grounds for many species.

Supporting Policies and Guidelines:

Position statements on wildlife (section 8.5).
Position statements on mitigation and habitat improvement (section 8.5).

Objectives:

1. Encourage the Utah Watershed Restoration Initiative (WRI) to focus on projects that include private landowner involvement by having county representatives attend meetings of the WRI regional teams, expressing their views, advising the WRI to involve private land owners, and advocating for the kinds of watershed restoration efforts they feel are most important.
2. Maintain healthy populations of mule deer while minimizing negative impacts from winter migration, including vehicle collisions and residential and commercial vegetation damage.
3. Avoid damage caused by wild horses by preventing the introduction of wild horse populations.
4. Support energy development while minimizing loss or fragmentation of habitats and disturbance during sensitive periods.
5. Meet municipal and industrial water needs while preserving traditional agricultural uses and ensuring aquatic habitat to support wildlife.

Related Resources and Uses:

-Threatened, Sensitive & Endangered Species
-Predator Management
-Agriculture
-Livestock and Grazing
-Land Use
-Fisheries
-Forest Management
-Recreation and Tourism

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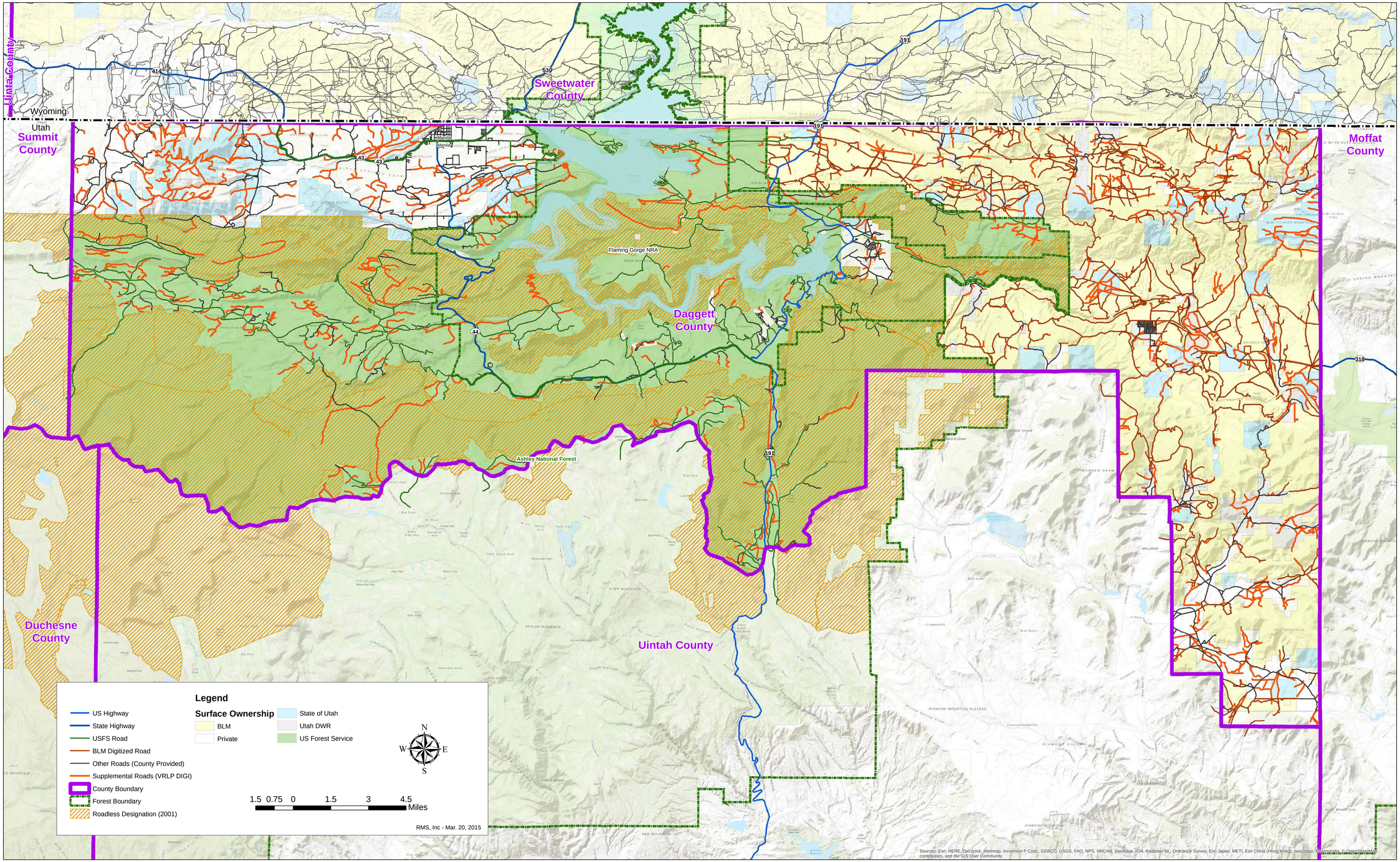
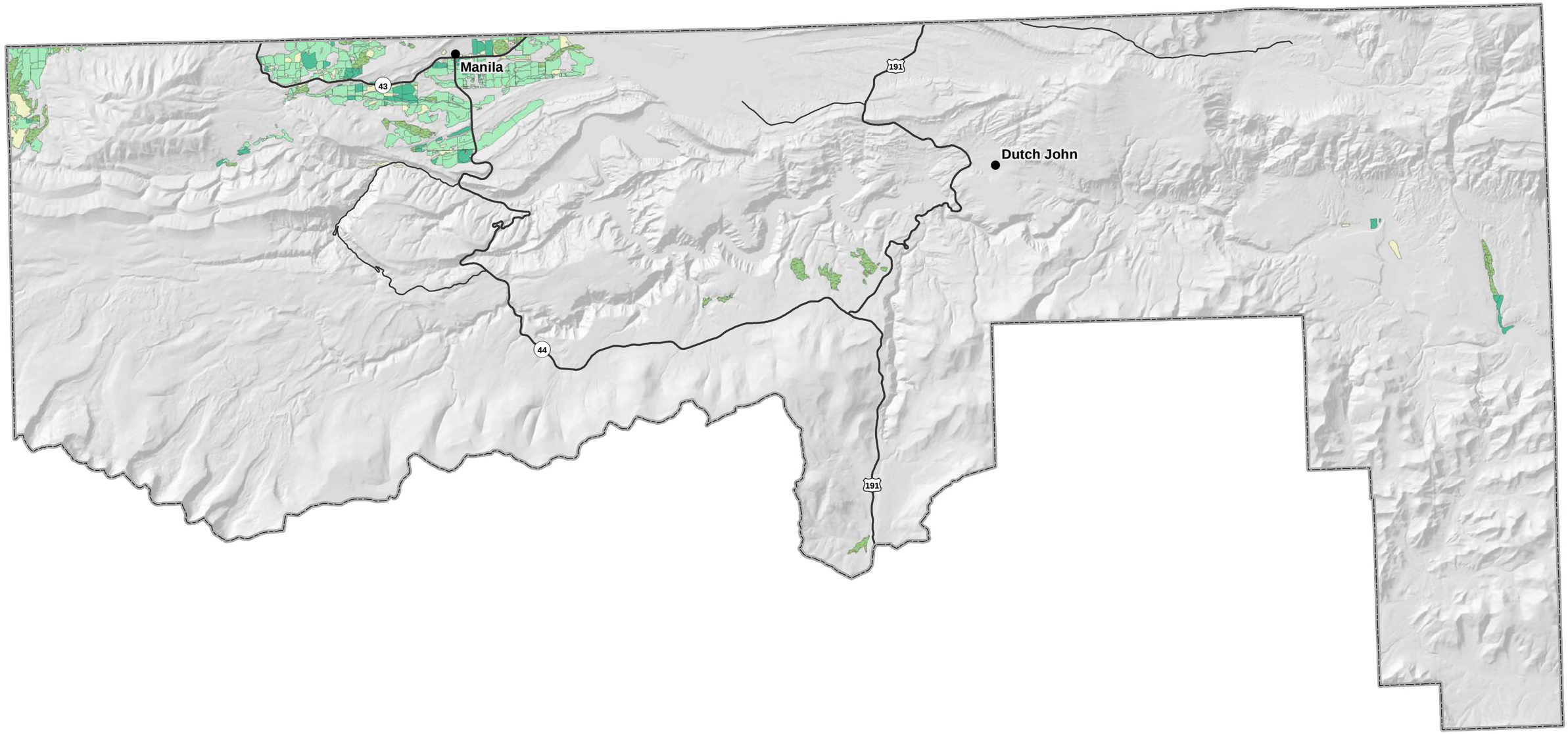
Maps

DAGGETT COUNTY TRANSPORTATION MAP



Daggett County Agriculture

Crop Type



Crop Type
- Alfalfa
- Grass Hay
- Idle
- Pasture

N

0 2 4 Miles

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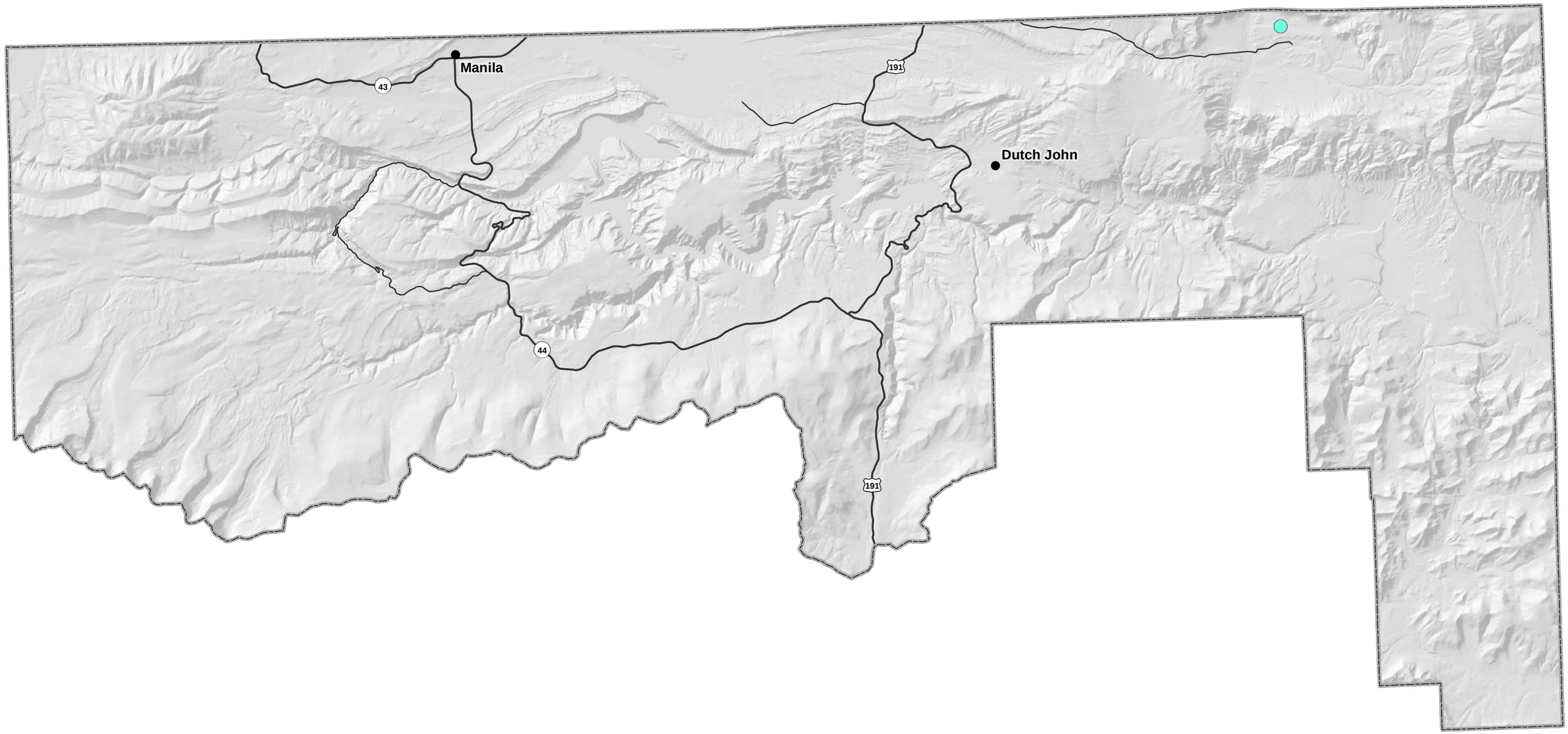
FLAMING GORGE COUNTRY

Daggett County Air Quality

Air Emissions Inventory



Utah Division of Air Quality
Air Emissions Inventory

N

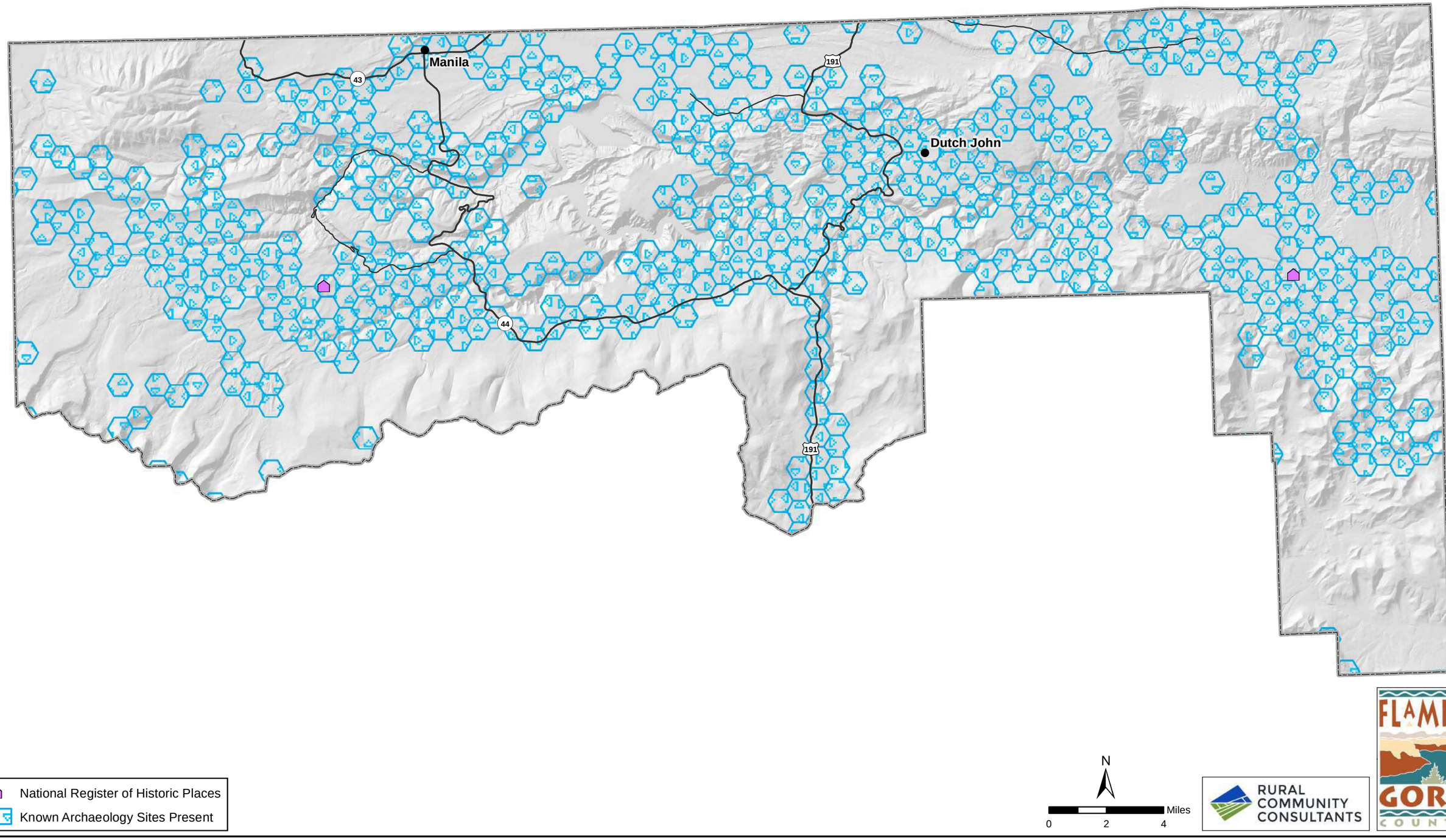
0 2 4 Miles

RURAL COMMUNITY CONSULTANTS

FLAMING GORGE COUNTRY

Daggett County Cultural Resources

Historic Places & Archaeological Sites



National Register of Historic Places

Known Archaeology Sites Present

N

0 2 4 Miles

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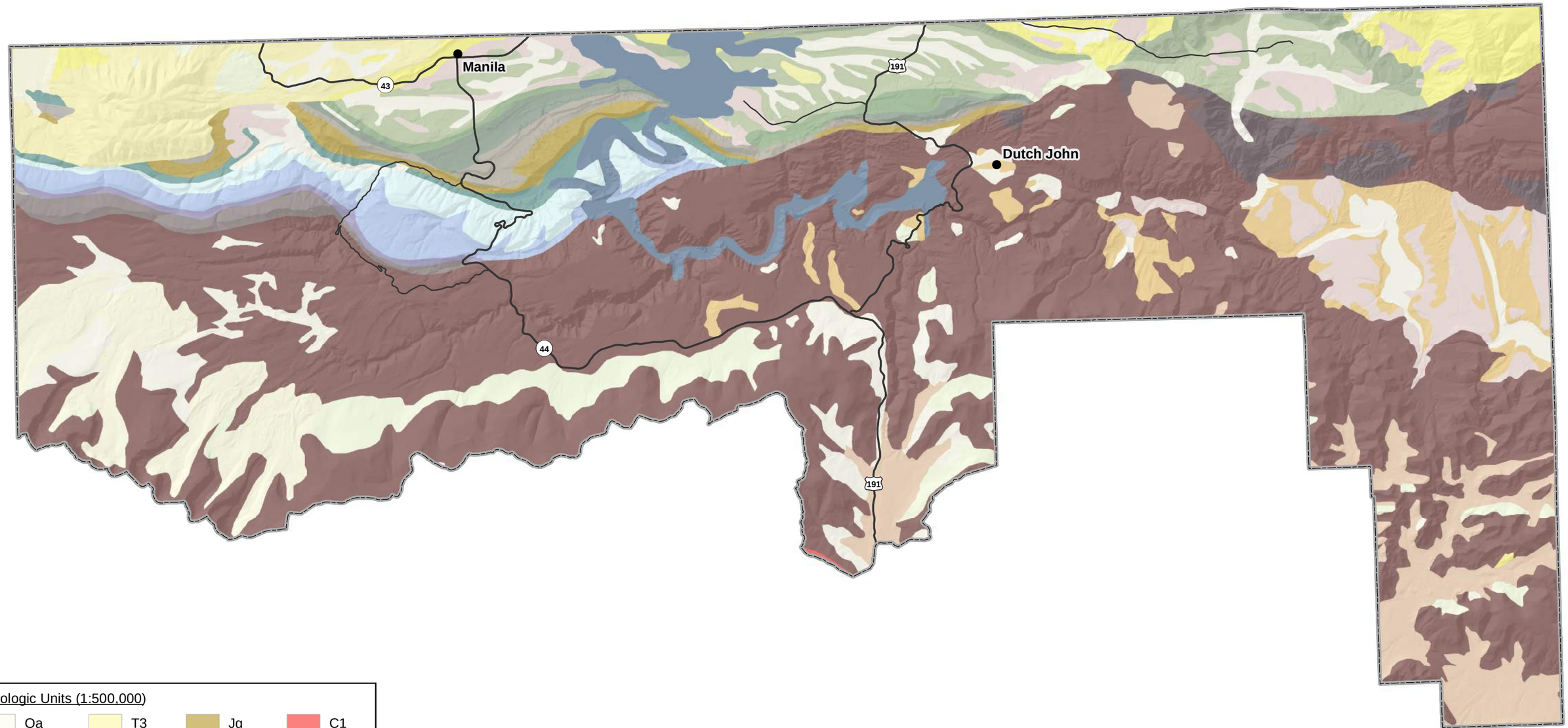
Daggett County Geology

Geologic Units



Geologic Units (1:500,000)

Qa	T3	Jg	C1
Qao	T1	Tr1	PCs
Qe	K3	P2	PCm
Qg	K2	PP	Water
Qls	K1	P	
T5	J2	M2	
T4	J1	M1	

N

0 2 4 Miles

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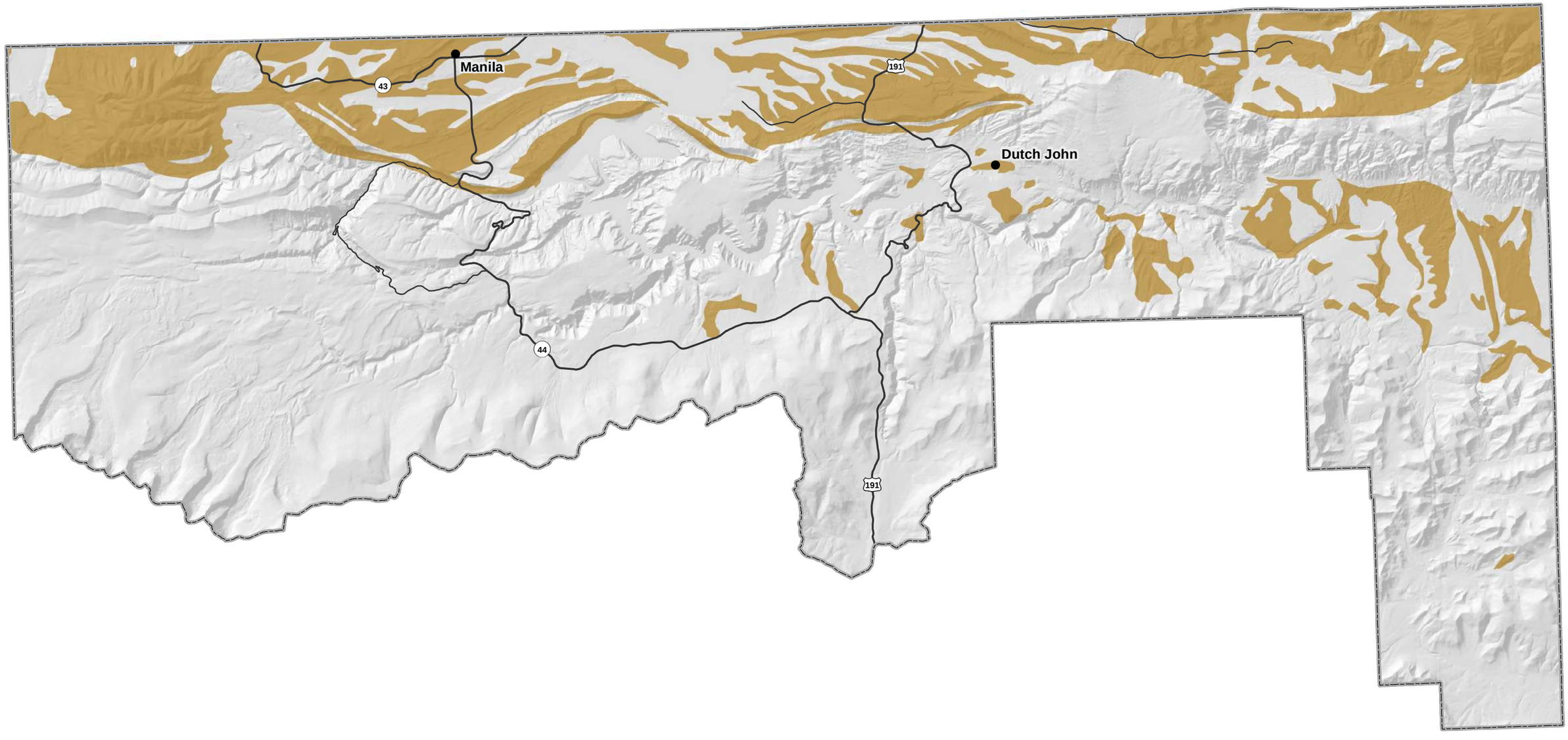
Daggett County Paleontological Resources

Paleontological Sensitivity



Paleontological Sensitivity

N

0 2 4 Miles

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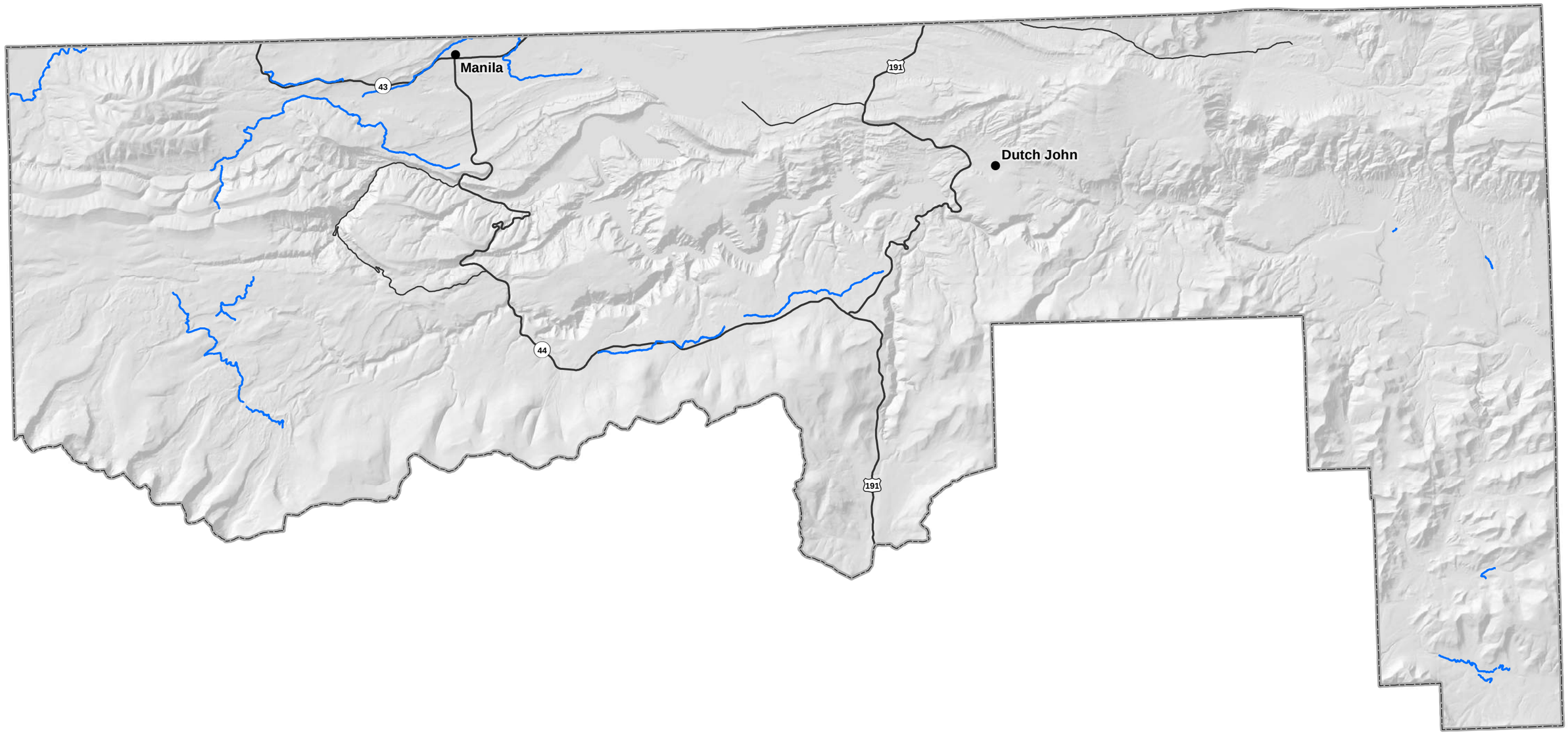
Daggett County Ditches and Canals

Canals



Canals

N

0 2 4 Miles

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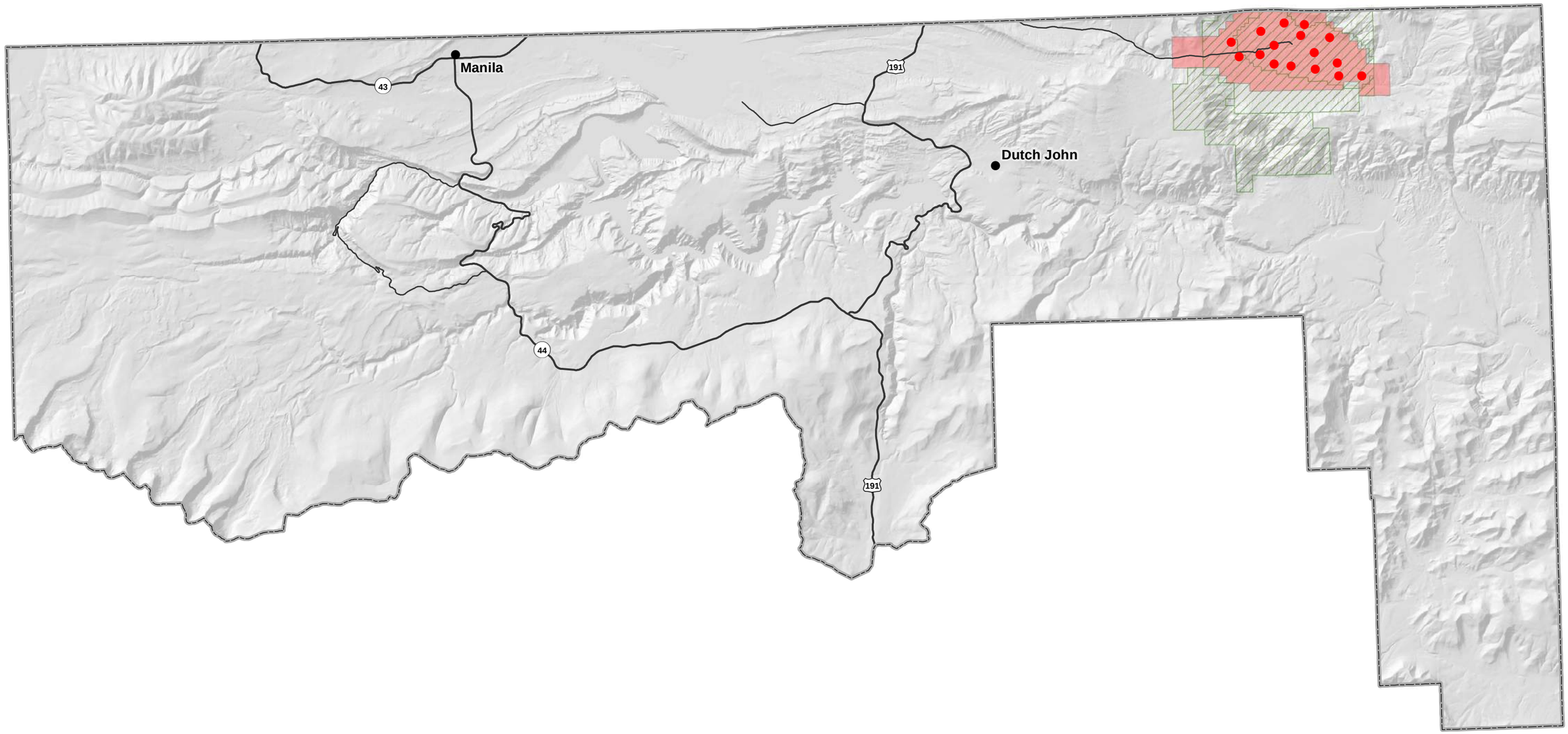
Daggett County Energy

Oil and Gas



Producing Gas Wells
Oil and Gas Units
Oil and Gas Fields

N

0 2 4 Miles

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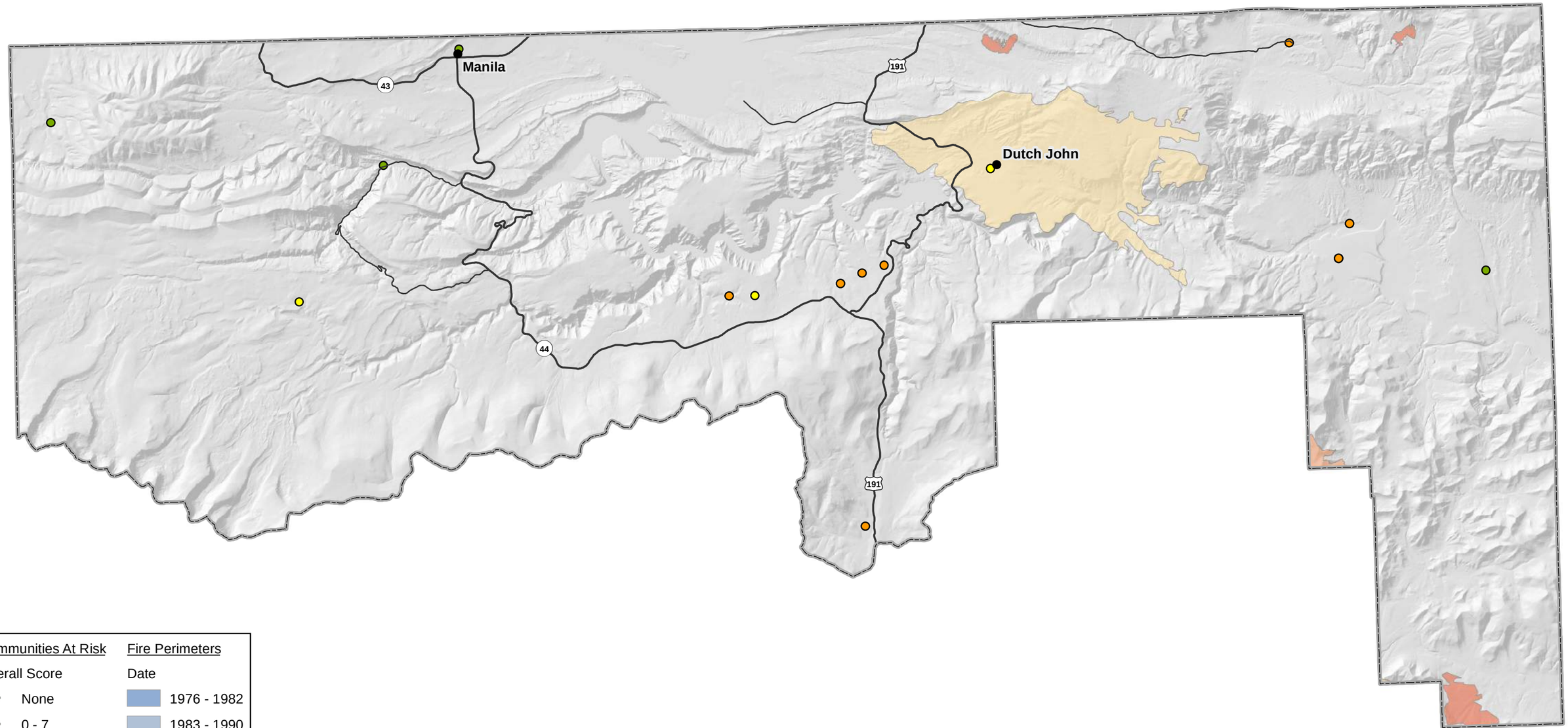
Daggett County Fire Management

Fire Perimeters and Risk Areas



Communities At Risk	Fire Perimeters
Overall Score	Date
None	1976 - 1982
0 - 7	1983 - 1990
7 - 8	1991 - 1995
8 - 10	1996 - 1998
10 -12	1999 - 2002
	2003 - 2005
	2006 - 2009
	2010 - 2015

N

0 2 4 Miles

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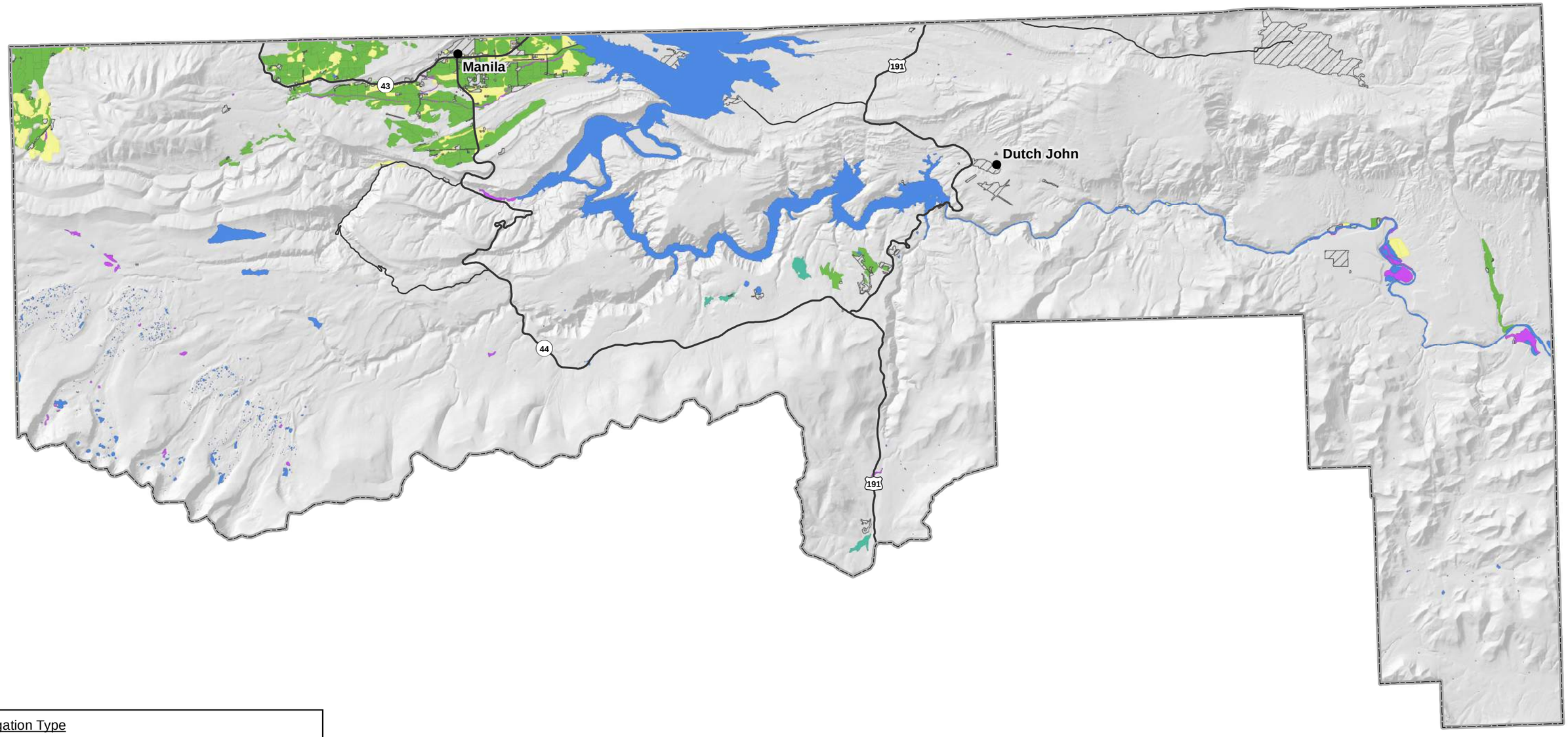
Daggett County Irrigation

Irrigation Type



Irrigation Type

- Irrigated Agricultural Lands
- Non-irrigated Agricultural Lands
- Non-agricultural Wetland or Other Riparian Area
- Naturally Irrigated Agricultural Land
- Urban
- Open Water

N

0 2 4 Miles

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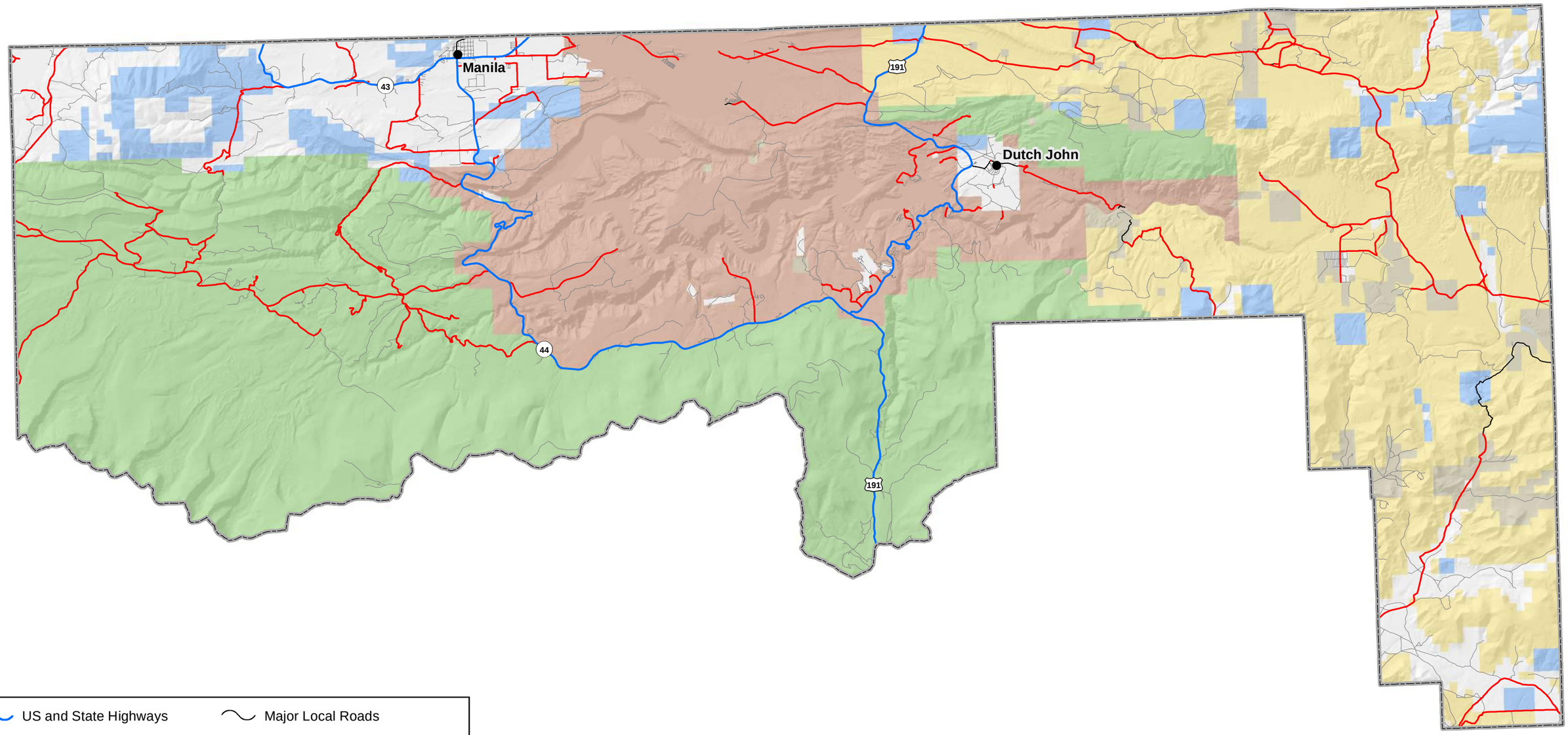
Daggett County Land Access

Roads



US and State Highways
Daggett County B Roads
Major Local Roads
Minor Local Roads

Landownership

Bureau of Land Management
National Recreation Area
National Forest
Private
State Trust Lands
State Sovereign Land
State Wildlife Management Area

N

0 2 4 Miles

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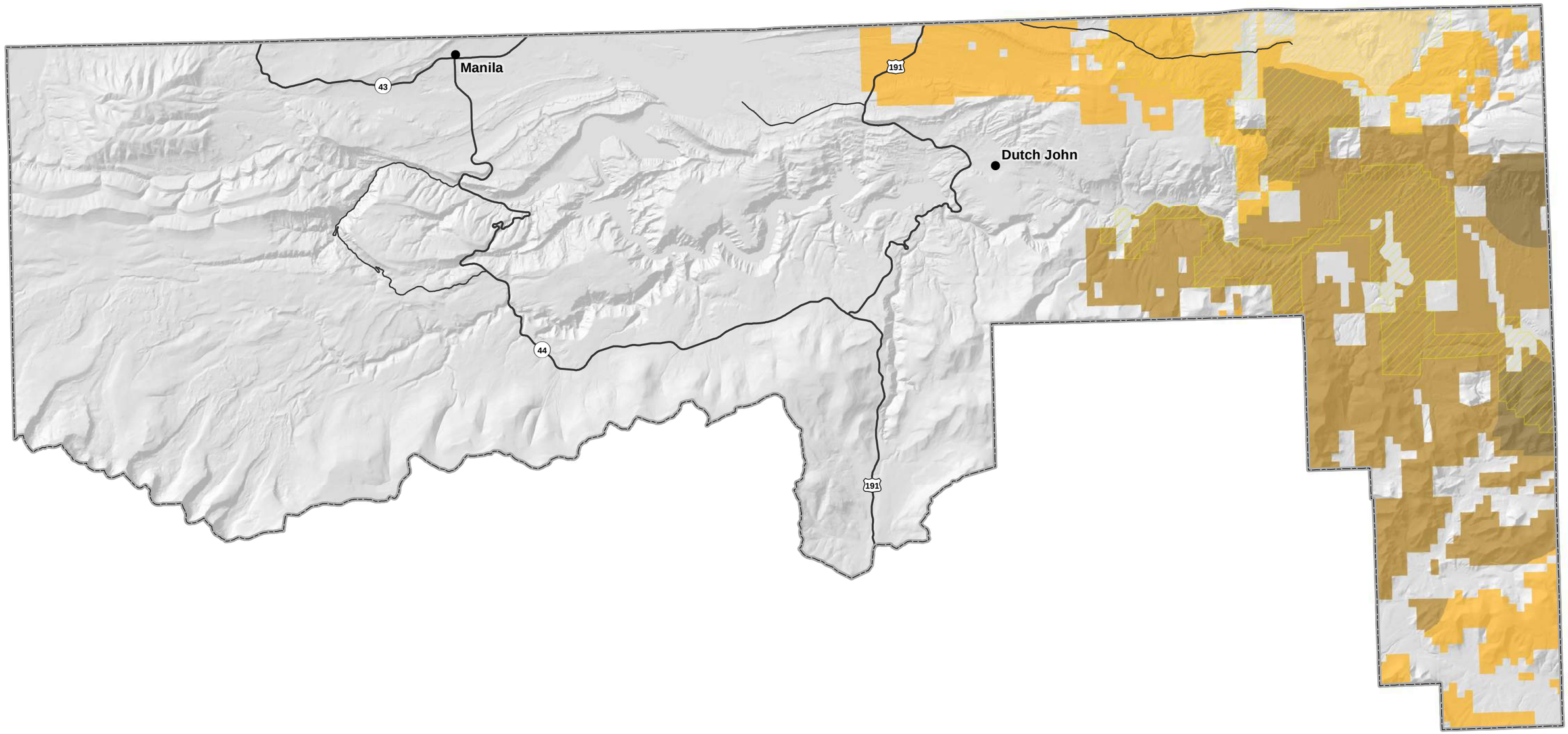
Daggett County Land Use

Conservation



ACECs

BLM Visual Resource Management Class

- VRM Class 1
- VRM Class 2
- VRM Class 3
- VRM Class 4

N

0 2 4 Miles

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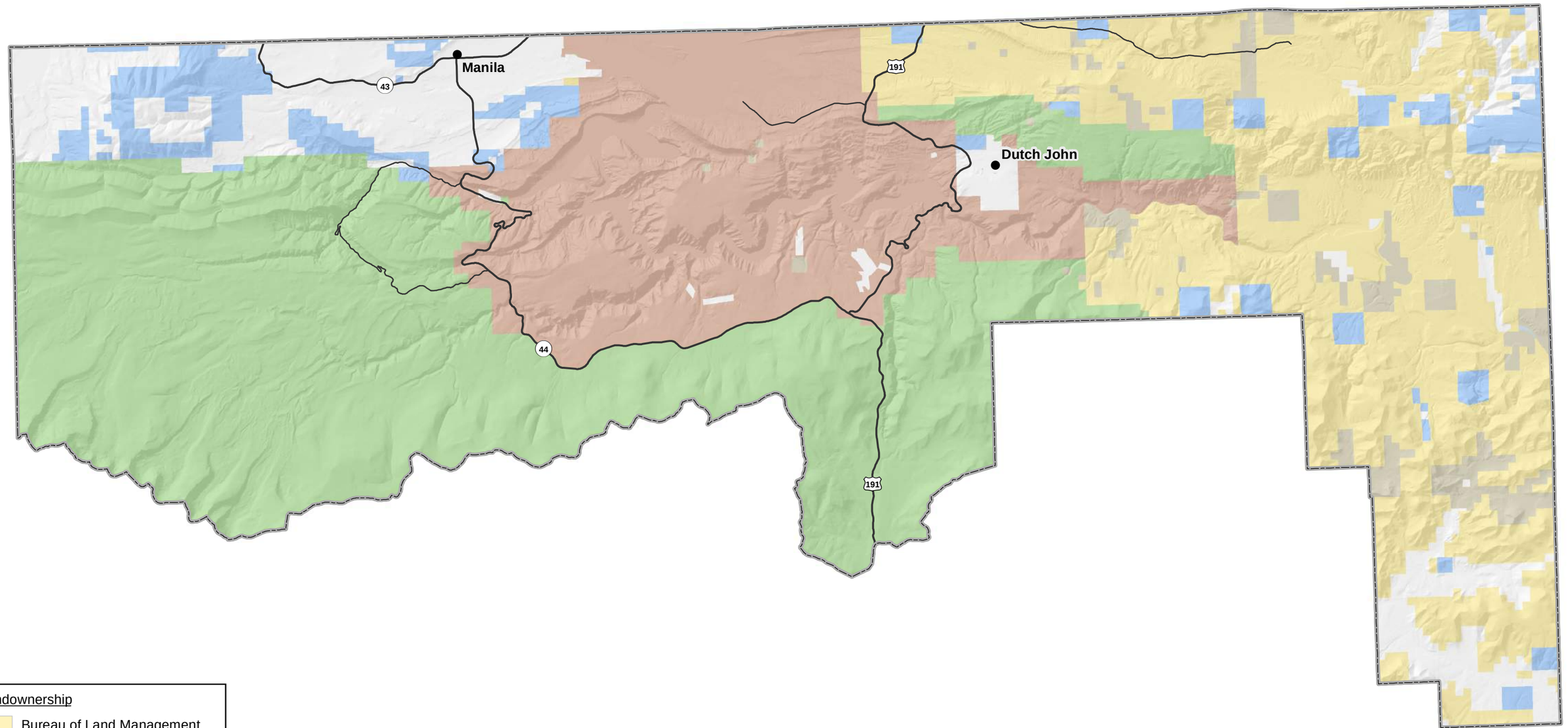
Daggett County Land Use

Landownership



Landownership
- Bureau of Land Management
- National Recreation Area
- National Forest
- Private
- State Trust Lands
- State Sovereign Land
- State Wildlife Management Area

N

0 2 4 Miles

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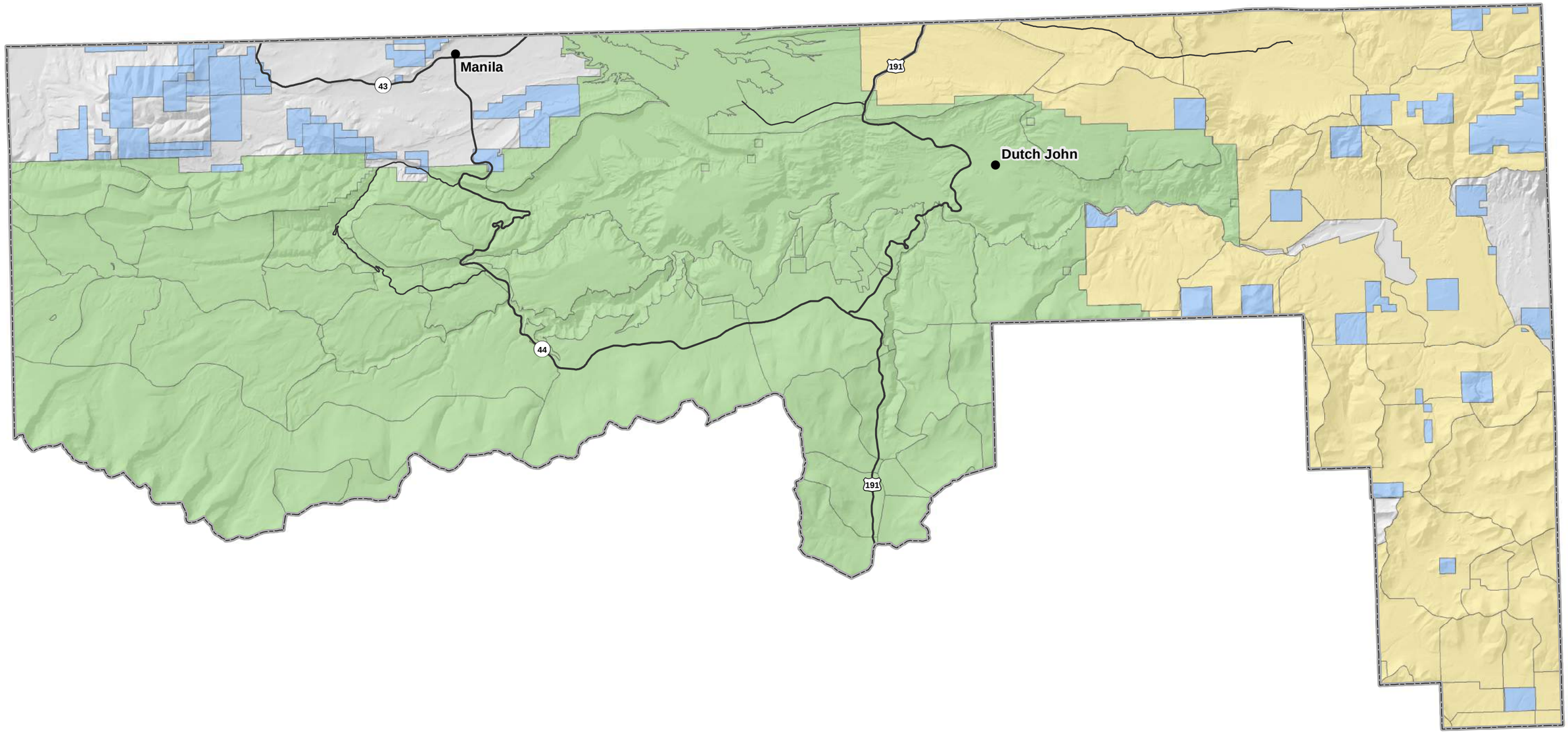
Daggett County Livestock and Grazing

Grazing Allotments



Grazing Allotments (By Manager)

- Bureau of Land Management
- State Trust Lands
- US Forest Service

N

0 2 4 Miles

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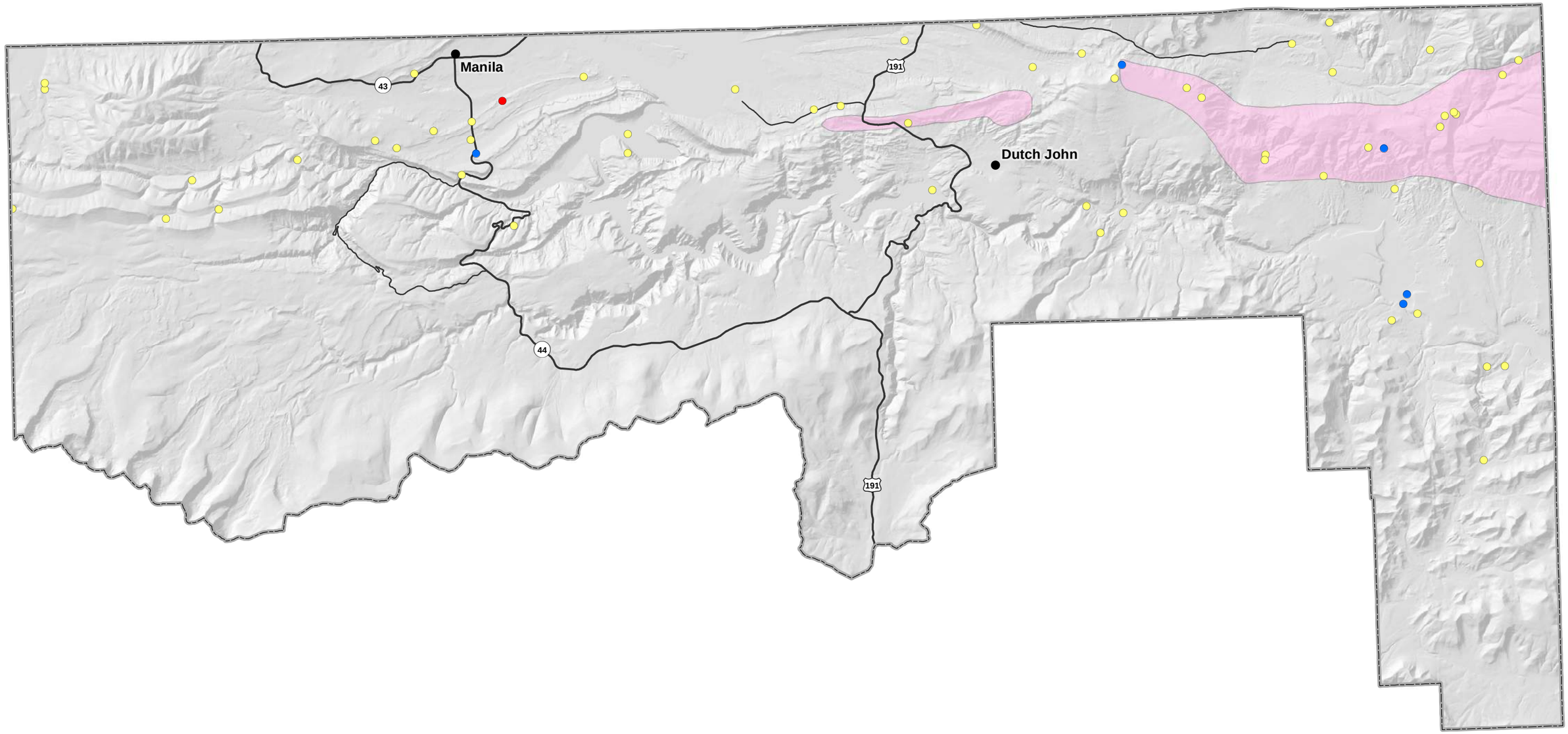
FLAMING GORGE COUNTRY

Daggett County Mining and Minerals

Mine and Mineral Locations



Mineral Locations
Active Mineral Mines
Retired Mineral Mines
Mineral Deposits

N

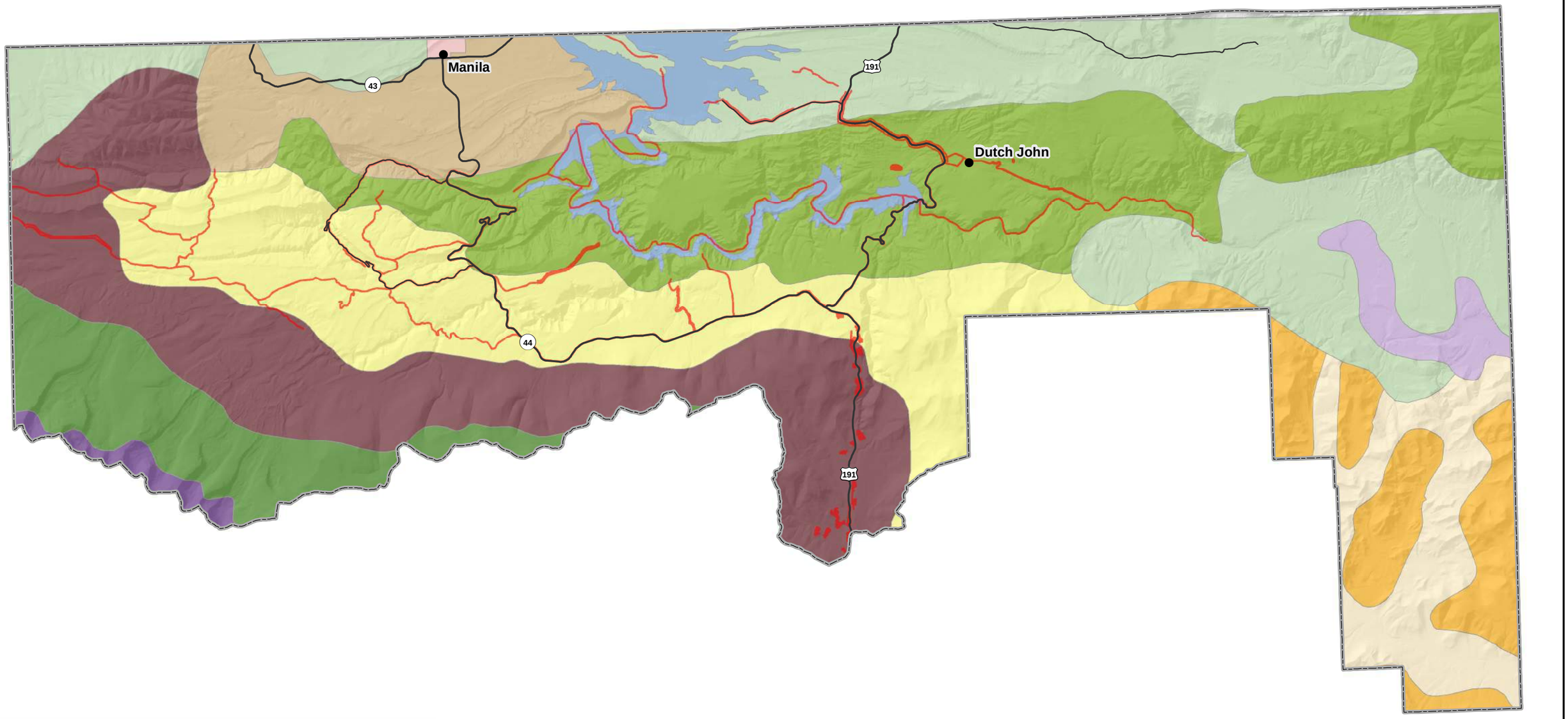
0 2 4 Miles

RURAL COMMUNITY CONSULTANTS

FLAMING GORGE COUNTRY

Daggett County Vegetation

Noxious Weeds and Dominant Vegetation



Noxious Weeds

Dominant Vegetation

- Cities
- Cultivated Land
- Engelmann Spruce
- Greasewood
- Lodgepole Pine
- Oak
- Ponderosa Pine
- Sagebrush
- Sedges
- Utah Juniper
- Wheatgrass
- Water

N

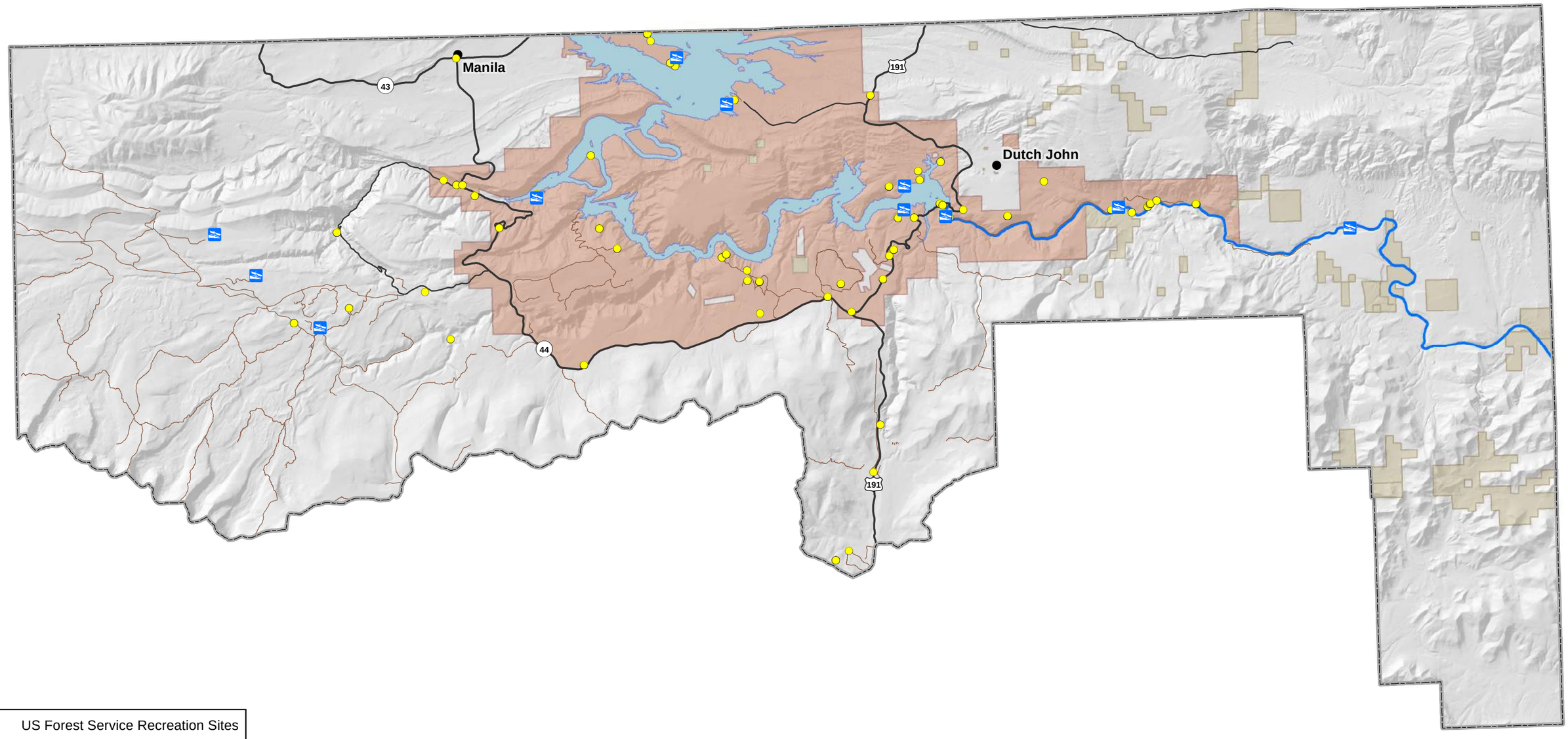
0 2 4 Miles

RURAL COMMUNITY CONSULTANTS

FLAMING GORGE COUNTRY

Daggett County Recreation

Recreation Points and Areas of Interest



- US Forest Service Recreation Sites
- Boat Ramps
- Trails
- Blue Ribbon Rivers
- Blue Ribbon Lakes
- National Recreation Area
- State Wildlife Management Area

N

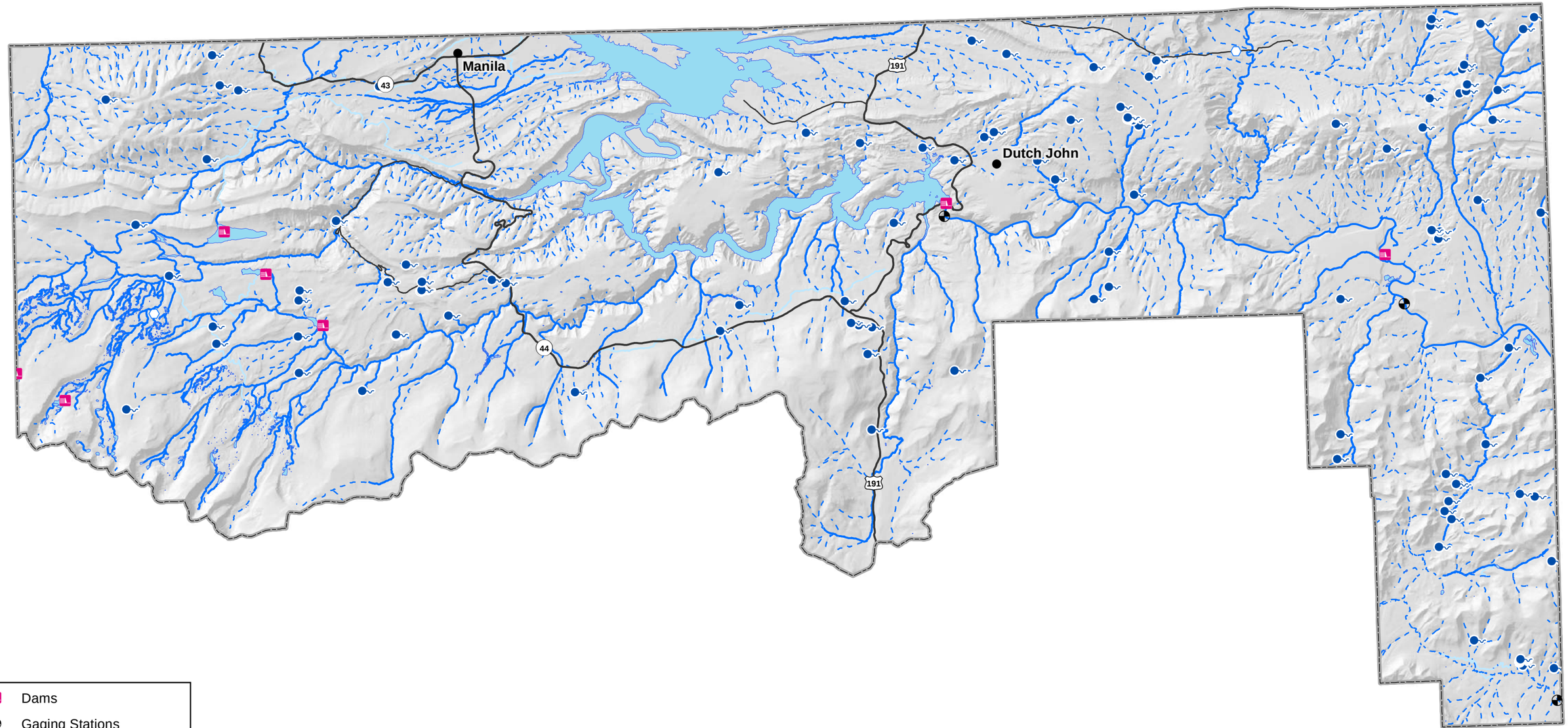
0 2 4 Miles

RURAL COMMUNITY CONSULTANTS

FLAMING GORGE COUNTRY

Daggett County Water Resources

Hydrology



- Dams
- Gaging Stations
- Spring/Seeps
- Wells
- Stream/River - Perennial
- Stream/River - Intermittent
- Canal
- Lake

N

0 2 4 Miles

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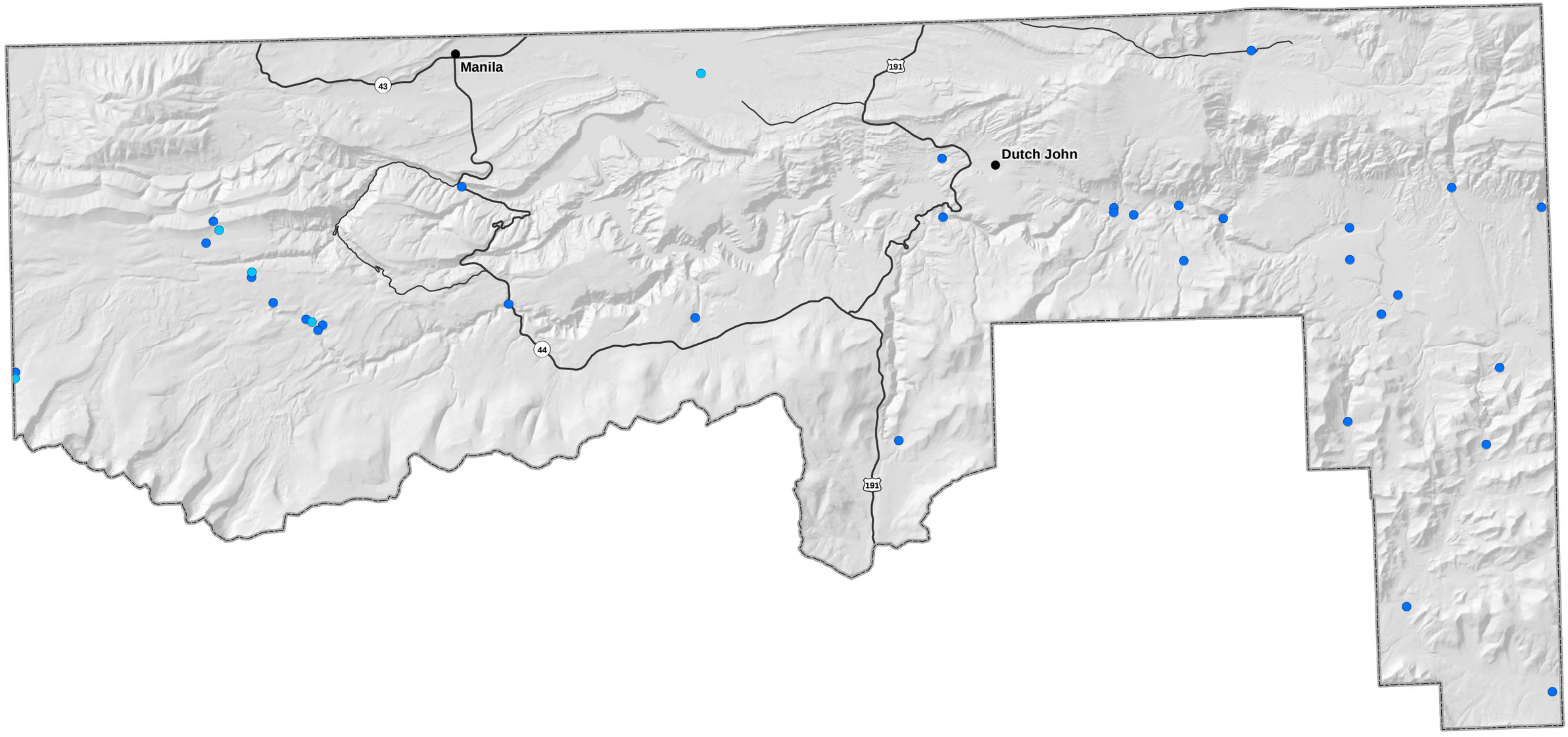
FLAMING GORGE COUNTRY

Daggett County Water Resources

Water Quality



Water Quality Monitored Lakes

Stream Water Quality Monitoring Sites

N

0 2 4 Miles

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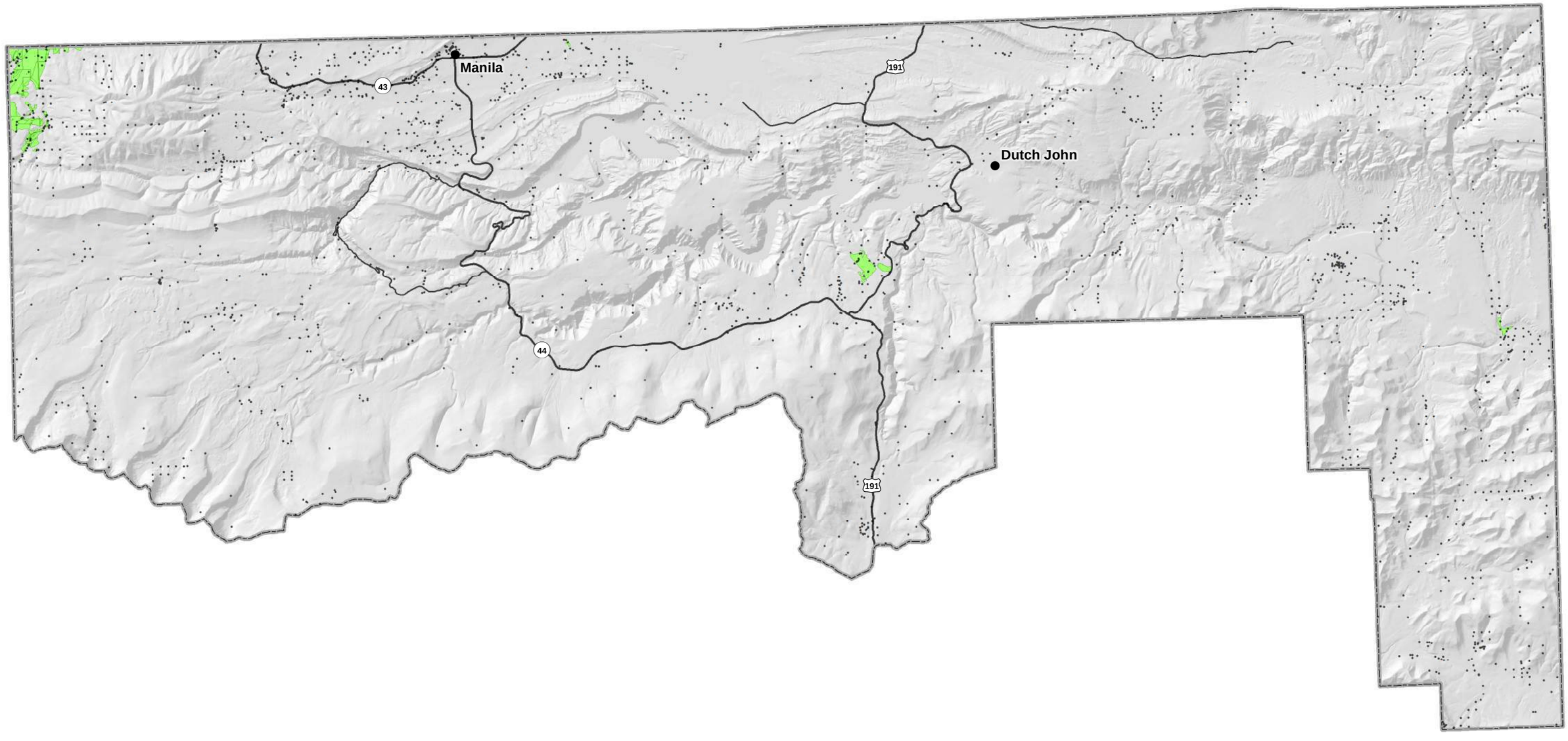
Daggett County Water Resources

Water Rights



Points of Diversion

Place of Use

N

0 2 4 Miles

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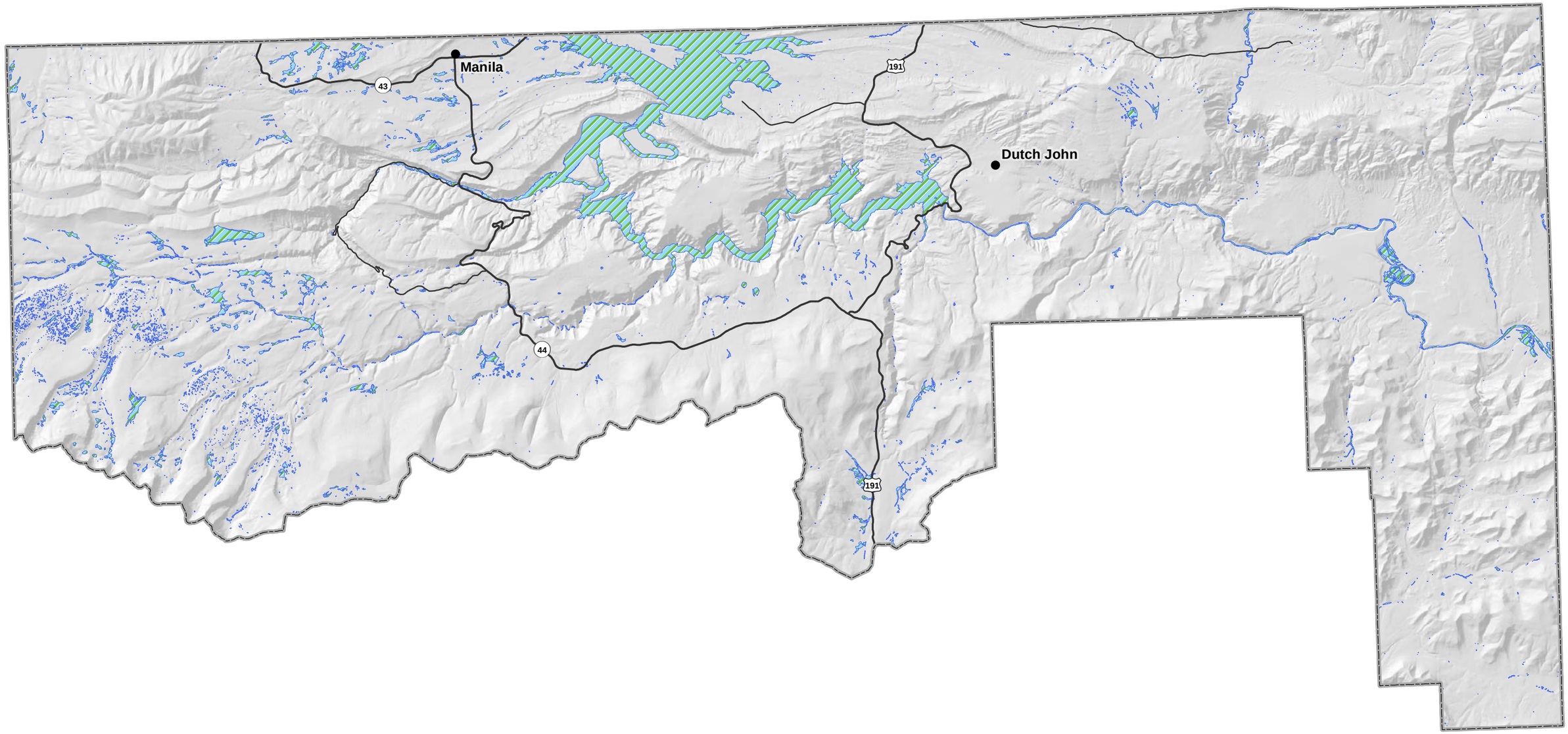
Daggett County Wetlands

Wetlands



Wetlands

N

0 2 4 Miles

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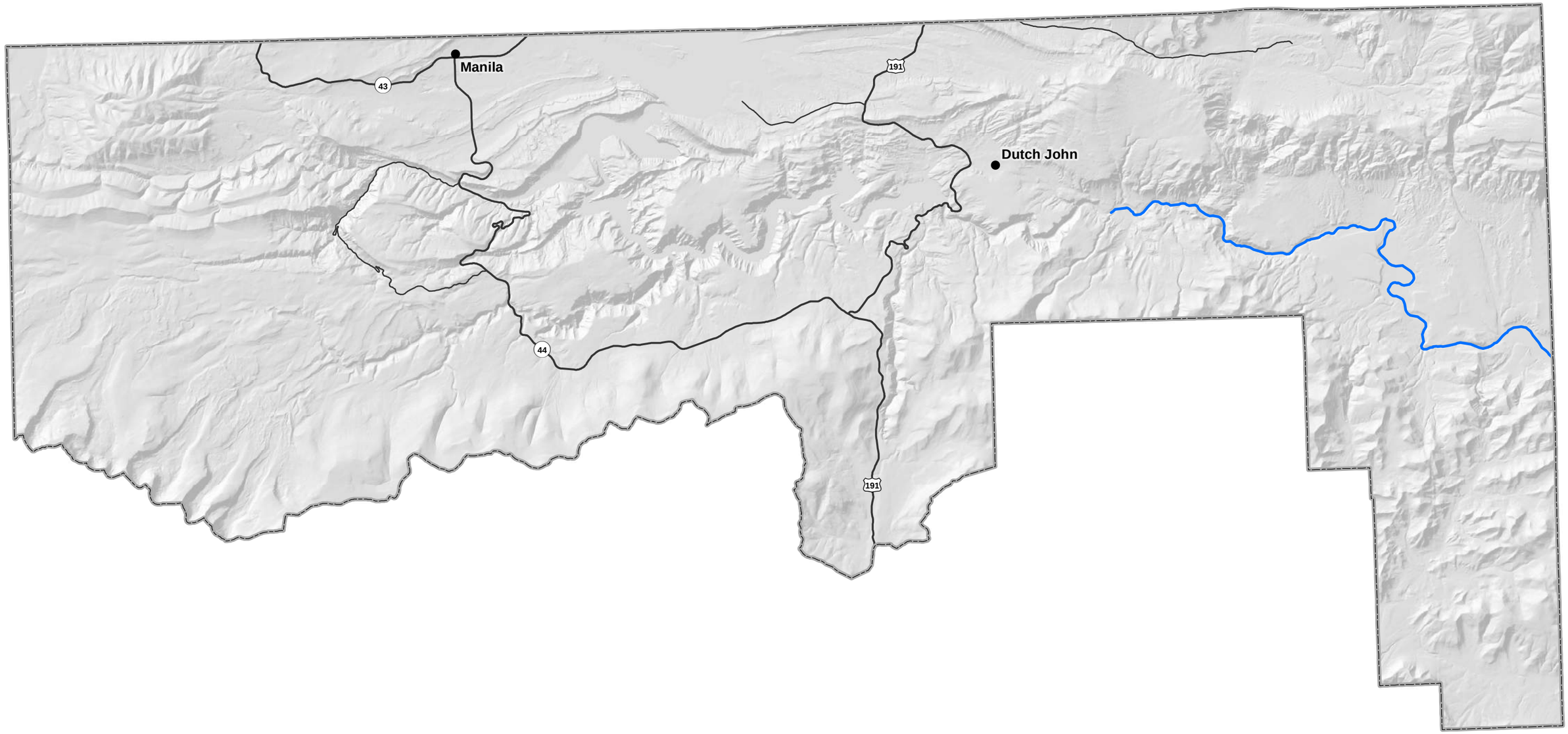
Daggett County Wild and Scenic Rivers

Suitable River Segments



Suitable Wild and Scenic Rivers

N

0 2 4 Miles

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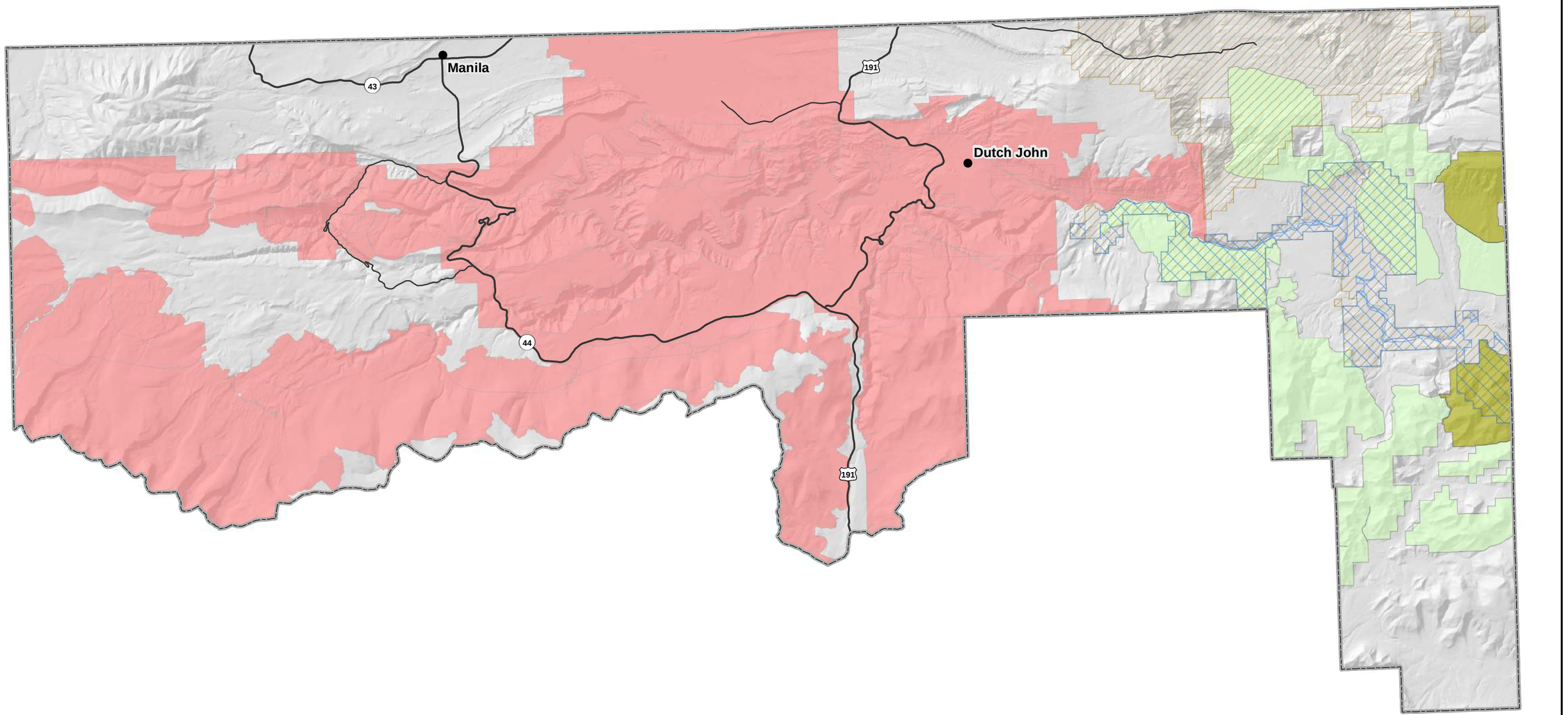
Daggett County Wilderness

Wilderness and Related Lands



ACECs
Wilderness Study Areas
Wilderness Characteristics
USFS Roadless Inventory
Special Recreation Management Areas

N

0 2 4 Miles

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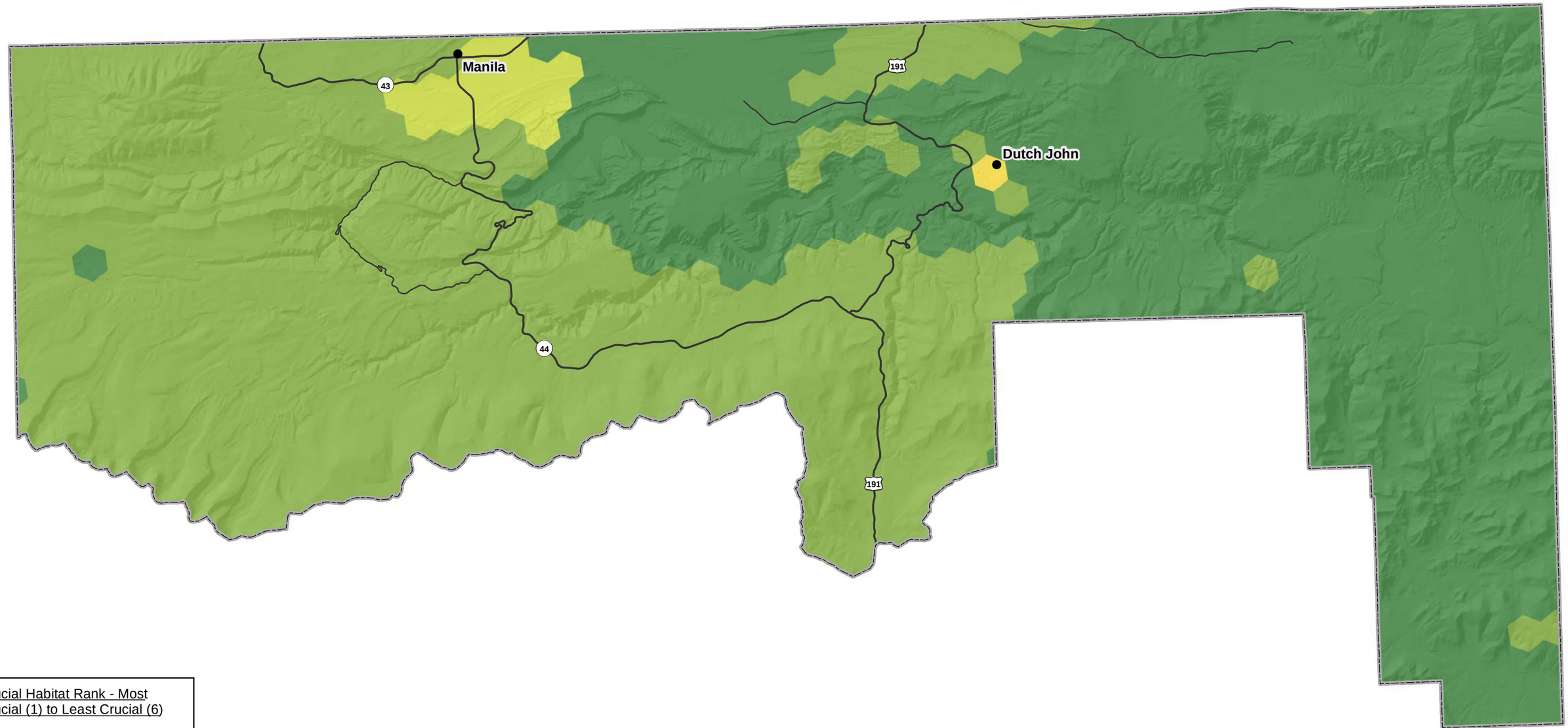
FLAMING GORGE COUNTRY

Daggett County Wildlife

Crucial Habitat



Crucial Habitat Rank - Most Crucial (1) to Least Crucial (6)

- Rank 1
- Rank 2
- Rank 3
- Rank 4
- Rank 5
- Rank 6

N

0 2 4 Miles

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