MILLARD COUNTY
RESOURCE MANAGEMENT PLAN

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CHAPTER 1

INTRODUCTION

1.1 PURPOSE AND NEED

1.1.1 PURPOSE

The purpose and scope of this document is to amend the Millard County General Plan by creating a Resource Management Section addressing public land issues. It is intended, to the maximum extent allowed by law, to establish criteria, policies, and requirements to be met in the various federal land planning processes and to provide consistency across agency boundaries while preserving and enhancing the County's custom, culture, resources, and socioeconomic base. This Plan is based on objective science, public input, multiple-use/sustained yield principles, a Recreation Opportunity Spectrum (ROS) process consistent with federal guidelines, Visual Resource Management (VRM) analysis, agency directives, procedures and standards applied in a consistent, objective, interdisciplinary manner across agency boundaries.

Millard County bases its land use plan on quantifiable data, scientific information, and known science. Where land management agencies are developing land use plans, and where quantified data is not available, professional judgment must defer to policies and objectives outlined in the Millard County Resource Management Plan. Where in the absence of quantifiable data, scientific facts, and known, proven results, professional judgment is used to establish planning actions that are not in agreement with Millard County's Plan, they are deemed to be inconsistent to the maximum extent allowed by law and are considered arbitrary and capricious.

1.1.2 NEED

Millard County (Map 1.1) consists of various units of federal, state, local government and private lands. The federal, state and local government entities have various planning requirements conducted within the laws, regulations and procedures for each agency. No two entities' requirements are exactly identical. However, they all rely, to a greater or lesser extent, on the local government plan as a basis for a) consistency, b) preserving the health, safety, welfare, custom, culture, and heritage of an area, c) meeting the needs of local communities and the public at large, and d) encouraging a productive and enjoyable harmony between man and his environment. Some agencies are required – to the maximum extent allowed by law – to be consistent with local plans, and other agencies are required to give deference to such plans; but all agencies are required to coordinate their plans with local government.

In the past, federal agencies have been reluctant to include Millard County as a full partner in the public lands planning process. Recently, Millard County has taken a more active role in establishing baseline policies and communicating County needs in public land planning. That involvement has led the County to conclude that the Millard County General Management Plan needs to be amended / augmented with a Resource Management Section to provide clear direction, objectives, goals, and criteria that can be applied consistently across agency boundaries and that can protect the custom, culture and welfare of Millard County's visitors and residents while providing for the conservation, development, use and / or enjoyment of its resources.

As the only governmental entity with some level of jurisdiction and planning responsibility for all lands within the planning boundaries, Millard County needs all agencies, to the maximum extent allowed by law, to adopt the direction, objectives, goals, policies, and criteria identified herein. Findings documented in the General Management Plan and the Resource Management Section are baseline conditions for all analysis. Where existing law is silent on a particular issue or where an agency is given discretion, Millard County's position must be given deference. If land managers feel alternate management scenarios are justified, detailed documentation needs to be provided and the County's concurrence needs to be sought. Absent such concurrence, and barring established law to the contrary, direction, objectives, goals, policies, and criteria identified in the County plans must be adopted.

1.2 DESCRIPTION OF PLANNING BOUNDARIES

The planning area consists of all lands located within the legally established boundaries of Millard County. All lands within the County are considered, regardless of ownership. Legally established municipalities consist primarily of private lands and comprise a small percentage of the County's land base. Conditions in and impacts to municipalities are considered in the planning process. However, management direction for lands within municipal boundaries is deferred to the individual town or city.

The Federal Government controls 3,286,068 acres or about 75.6% of the approximately 4.35 million acres of land area in Millard County. Of the 3,286,068 acres 3,023,110.6 acres are managed by the Bureau of Land Management's (BLM) Fillmore Field Office which constitutes about 69.3% of the County. The U.S. Forest Service (USFS) controls about 6% or approximately 262,957 acres in the Fishlake National Forest. Approximately 2% is held in private ownership, and State of Utah owns 400,475 acres or about 9.2%. The remaining 24,602 acres is under management jurisdiction of incorporated cities, and roads/railroad rights-of-way.

1.3 PLANNING PROCESS

1.3.1 RELATIONSHIP TO OTHER PLANS

It is recognized that land managers conduct many programs that are beneficial to Millard County. However, this plan is focused on areas in need of change. No attempt has been made to delineate the resources that are being appropriately managed. The plan is written in a genuine cooperative spirit of partnership that will meet the goals of public land management agencies and Millard County while:

a) encouraging productive and enjoyable harmony between man and his environment,

b) promoting efforts which will prevent or eliminate damage to the environment and biosphere,

c) stimulating the health and welfare of man.

For analysis purposes, the region of comparison is that combined area comprised by the State of Utah, the Colorado Plateau and Anasazi dwelling units. (Map 1.2)

1.3.2 MONITORING, MAINTENANCE, AMENDMENT, AND REVISION

Monitoring and Evaluation

The plan shall be monitored and evaluated at regular intervals based on the sensitivity of the resource to the decisions involved and shall consider whether there is a change in conditions or whether there is new data of significance to the plan. The County shall be responsible for monitoring and evaluating the plan at intervals not to exceed 10 years and at other times as appropriate to determine whether there is sufficient cause to warrant amendment or revision of the plan.

Plan Maintenance

The Millard County Resource Management Plan and supporting components shall be maintained as necessary to reflect minor changes in data. Such maintenance is limited to further refining or documenting a previously approved decision incorporated in the plan. Maintenance shall not result in expansion in the scope of resource uses or restrictions, or change the terms, conditions, and decisions of the approved plan. Maintenance is not considered a plan amendment and shall not require formal public involvement and coordination or the preparation of a completely new document. Maintenance shall be recorded in the plan and supporting records.

Amendment

The Millard County Resource Management Plan (MCRMP or RMP) may be changed through amendment. An amendment may be initiated to consider monitoring and evaluation results, new data, new or revised policy, a change in circumstances, or a proposed action that may result in a change in the scope of resource uses or a change in the terms, conditions and decisions of the approved plan. An amendment shall be made through a public process similar to that required for initial development of the plan. The effect of the amendment on the health and welfare of the County and its resources shall be considered. If the amendment is being considered in response to a specific proposal, the analysis required for the proposal and for the amendment may occur simultaneously. Approved plan amendments shall carry the same validity as if originally included in the plan.

Revision

Revision to the Millard County Resource Management Plan will be conducted as follows:

Proposed Change	Action	Public Comment	Commission Approval
Current Setting	Plan Maintenance	No	Yes
Desired Conditions	Plan Amendment	Yes	Yes
Need for Management Change	Plan Amendment	Yes	Yes
Policies, Goals, Objectives, & Criteria	Plan Amendment	Yes	Yes
Findings	Plan Amendment	Yes	Yes
Land Use	Plan Amendment	Yes	Yes
Data Correction	Plan Maintenance	No	Yes
Appendix Information	Plan Maintenance	No	Yes
Appendix Augmentation	Plan Maintenance	No	Yes
Map Correction	Plan Maintenance	No	Yes
Grammar/Typographic	Plan Maintenance	No	No

Clarification of the intent, position, and/or policies contained herein shall be at the discretion of the County and may be provided upon request.

1.4 AUTHORITIES

In addition to authorities granted by the State of Utah to govern private lands within its boundaries, Millard County asserts the Constitution of the United States has bestowed considerable power and authority to local governments which direct and influence the federal agency land use planning process for existing and future management of lands within federal agency boundaries. In the Federalist Papers: 45, James Madison discusses "alleged dangers" the federal government poses to state governments. Among other things, the papers assure States of the following:

Within every district to which a federal collector would be allotted, there would not be less than thirty or forty, or even more, officers of different descriptions, and many of them persons of character and weight, whose influence would lie on the side of the State. The powers delegated by the proposed Constitution to the federal government are few and defined. Those which are to remain in the State governments are numerous and indefinite. The former will be exercised principally on external objects, as war, peace, negotiation, and foreign commerce; with which last the power of taxation will, for the most part, be connected.

The powers reserved to the several States will extend to all the objects which, in the ordinary course of affairs, concern the lives, liberties, and properties of the people, and the internal order, improvement, and prosperity of the State. The operations of the federal government will be most extensive and important in times of war and danger; those of the State governments, in times of peace and security. As the former periods will probably bear a small proportion to the latter, the State governments will here enjoy another advantage over the federal government.

Utah State Statute directs the development of county-level plans. Section 17-27a-401 of the Utah Code provides:

"*…each County shall prepare and adopt a comprehensive, long range general plan."*

Specific 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 Title 17-27a-401 to also require that County General Plans include a Resource Management Plan to provide a basis for communicating and coordinating with the federal government on land and resource management issues. This Resource Management Plan is the fulfillment of those requirements.

Major federal laws that influence land planning in Millard County include but are not limited to:

- The Federal Land Policy and Management Act (FLPMA)
- The National Forest Management Act (NFMA)
- The National Environmental Policy Act (NEPA)
- The Wild and Scenic Rivers Act (WSRA)
- The Endangered Species Act (ESA)
- Archaeological Resources Protection Act (1979)
- The Wilderness Act (1964)
- The National Trails Systems Act (1968)
- The National Historic Preservation Act
- The Data Quality Act
- The Regulatory Flexibility Act
- The Clean Air Act
- The Clean Water Act
- The Resource Conservation and Recovery Act

The federal government also recognizes the role of state, local and tribal governments in planning processes. Under NEPA's purpose of achieving productive and enjoyable harmony between man and his environment, CEQ Regulations, the U.S. Code, the Code of Federal Regulations and individual agency manuals direct and mandate federal agencies to consult, coordinate, and cooperate with state, local and tribal governments and to achieve the maximum possible consistency between federal and non-federal plans. Language in the authorizing statutes/documents is often identical for state and local governments and for tribal governments. Agency implementation guidance is also frequently identical for the three levels of non-federal government. However, some agencies provide greater detailed guidance for Native American Tribes, especially in Alaska. Wherever authorizing language is similar/identical, or absent specific federal law to the contrary, Millard County adopts consistency, consultation, coordination and cooperation requirements as described in Executive Order 12866 and Executive Order 13175 identical for state, local and tribal entities.

1.4.1 NATIONAL PARK SERVICE

As of January 2016 Millard County does not contain any National Park Service (NPS) units. The National Park Service was created on August 25, 1916 through its Organic Act located in Title 16 of the United States Code. National Park Service units are created for specific purposes as disclosed in their enabling legislation. In determining what is an appropriate use of a National Park Service unit, NPS Planning and decision making procedures are used to engage interested governmental entities and the public. Processes also require the best scientific information must be considered.

The criteria for determining whether a particular use is appropriate in a park are set forth in the Federal Code. In applying the criteria, the responsible NPS Manager must use good judgment to ensure that uses will not create an unacceptable impact, be inconsistent with park purposes or values, unreasonably interfere with park programs or activities, disrupt the operation of park concessions or contractors, create an unsafe or unhealthful environment for visitors or employees, result in significant conflict with other appropriate uses, or diminish opportunities for current or future generations to enjoy park resources or values. In short, Park Service Managers have a great deal of discretion in the planning process, so long as it meets criteria mentioned above. This Resource Management Plan provides direction and standards for use in applying Park Service discretion.

Under NEPA's implementing regulations (40 CFR 1500 – 1508) and the Code of Federal Regulations (43 CFR Subtitle A Part 46.155), the NPS and other federal agencies are required to consult, coordinate, and cooperate with State and local governments, to the fullest extent possible, concerning environmental effects of any federal action within the jurisdictions or related to the interests of the non-federal entities.

1.4.2 NATIONAL FOREST SERVICE

National Forests operate under the Department of Agriculture and have a similar obligation as Department of Interior agencies to comply with CEQ's implementing regulations for NEPA and other applicable federal law. Consistency, consultation, coordination and cooperation requirements are identified in federal statutes and regulations for states, local governments and recognized Native American tribes.

Furthermore, the National Forest Management Act obligates Forest Service land managers to provide for community stability including: a) establishing coordination procedures with the

County prior to selection of a preferred alternative, b) coordinating with County planning efforts, considering alternatives in light of any conflicts with respect to County plans, c) displaying results of County plan reviews in environmental documents, and d) monitoring how the Forest Service Plan affects nearby communities.

Additionally, 16 U.S.C 1604 requires:

"…the Secretary of Agriculture shall develop, maintain, and, as appropriate, revise land and resource management plans for units of the National Forest System, coordinated with the land and resource management planning processes of State and local governments and other Federal agencies."

This Land Management Plan is prepared according to the National Forest Management Act (NFMA) and other laws and regulations. Current plans for the Fishlake National Forest was approved in 1986. NFMA regulations require that each plan be revised at least every 15 years (36 CFR 219.7(a) (4)). The current County revision is being prepared to provide direction for future federal planning.

1.4.3 BUREAU OF LAND MANAGEMENT

In addition to CEQ Regulations and the Code of Federal Regulations cited above, the Federal Land Policy and Management Act (FLPMA) also obligates the BLM to coordinate its land use plans with County plans, and take all practical measures to resolve conflicts between them as follows:

Section 202(a) - The Secretary shall, with public involvement and consistent with the terms and conditions of this Act, develop, maintain, and when appropriate, revise land use plans.

Section 202(c) - In the development and revision of land use plans the Secretary shall:

(1) use and observe the principles of multiple-use and sustained yield set forth in this and other applicable laws.

(2) use a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences.

(9) …. to the extent consistent with the laws governing the administration of the public lands, coordinate the land use inventory, planning, and management activities of or for such lands with the land use planning and management programs of other Federal departments and agencies and of the States and local governments within which the lands are located … considering the policies of approved State and tribal land resource management programs.

Subsection (9) goes on to state:

"*Land use plans of the Secretary under this section shall be consistent with State and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act*."

Title VII, Section 701(a) is also important to this County Planning Revision in that it states, *"Nothing in this Act, or in any amendment made by this Act, shall be construed as terminating any valid lease, permit, patent, right-of-way or other land use right or authorization existing on the date of approval of this act."*

1.4.4 JURISDICTION FOR HEALTH, SAFETY AND WELFARE

The United States Constitution is the most important document in American governance and is the source of all federal law. It is the cornerstone and the foundation upon which is built the relationship between the citizens and their government. The Constitution defines the rights, privileges and responsibilities of the people and limits government authority over the people. It is a contract between the people and the government. The people are bound by the laws of the government, and the government is bound by the provisions and principles of the Constitution.

Our government is one of enumerated powers, and it can only exercise powers granted to it. Article I of Section 8 grants to Congress the authority to make laws regarding specific subjects. The powers not specifically delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states or the people. Other laws may deal with matters not specifically considered in the Constitution, but no law, be it state or federal, can conflict with the Constitution.

The Tenth Amendment reserves the power not expressly given to the federal government in the Constitution to the States or to the people. In section 8 of Article I, *Exclusive* federal jurisdiction is established over forts and several other specifically defined federal facilities. Section 3 of Article IV gives Congress the power to make rules and regulations regarding the territory and other property belonging to the United States. However, the primary source of authority and jurisdiction for federal land management agencies is federal statutes. Some federal statutes (called enabling legislation) provide authority for specific federal agencies to adopt regulations to implement their statutory authority. Enabling legislation authorizes an agency to adopt regulations for those areas specified in the statute. Outside the limits set in its enabling legislation, a federal agency does not have authority to adopt regulations.

Jurisdiction over federal lands consists of a) what authority an agency has over lands under its management and b) the geographical limits of its authority, which are generally set at the agency's boundaries. Along with other considerations, the method and terms of the acquisition of the property determine the type of federal jurisdiction that applies to that particular parcel of land. The basic types of federal jurisdiction are exclusive, concurrent, partial, and proprietary.

In areas of exclusive jurisdiction, only the federal government has law enforcement authority. This occurs when the federal government has received, through state legislative action (called "ceding" or "cession") all of the authority of the state on a certain tract of land contained within the state's borders. With exclusive jurisdiction, no reservations have been made to the state, except that state and local officers have the authority to serve criminal and civil process, such as arrest warrants, resulting from activities that occurred outside the area of exclusive jurisdiction.

Concurrent jurisdiction exists when both the state and federal governments have authority over a particular area. Usually this occurs when a state has ceded land to the United States, but has reserved to itself the right to exercise its state authority. In these jurisdictions, both the state and federal governments may enforce their respective criminal laws and prosecute those who violate their respective laws.

Partial jurisdiction occurs in areas where some of the jurisdiction normally held by the state is ceded to the federal government and some of the state's jurisdiction is retained. Those portions ceded to the federal government would be similar to exclusive jurisdiction; and those portions retained would be similar to proprietorial jurisdiction.

Proprietary jurisdiction is primarily state jurisdiction, with exceptions for federal laws of general application and federal laws and regulations specifically applicable to the particular type of land involved. Proprietary jurisdiction exists when the United States has acquired some right or title to an area within a state‘s borders, but has not acquired any measure of the state‘s authority over the area. In essence, the United States has rights generally equivalent to a private landowner. In these situations, state law applies within the proprietary area to the same extent that it does throughout the remainder of the state. However, under the Supremacy and Property Clauses of the United States Constitution, federal statutes or regulations enacted to protect these proprietary areas may also be enforced.

Jurisdictional status for lands managed by the various federal agencies are maintained by the General Services Administration (GSA). GSA’s formal responses to Freedom of Information Act Requests indicate the following jurisdictional classifications for federal lands in Millard County:

Entity	**Jurisdiction**
BLM, Fillmore Field Office	Proprietorial
Fishlake National Forest	Proprietorial

There may be other federally owned lands that exist in Millard County, but they are believed to be of minimal acreage when compared with the properties listed above. Additionally, the Piute Indian Tribe manages reservation lands in the southeast corner of the County. These lands are managed as an independent tribal nation which is not considered a federal land management agency.

1.5 COORDINATION, COOPERATION & CONSISTENCY

1.5.1 INTRODUCTION Since the 1970s, Congress has required federal agencies to manage their lands through land use plans. These plans are park-wide, field office wide, district-wide or forest-wide documents that determine how the resources for a given area of Park Service, BLM or Forest Service land will be used and managed over an extended period of time. Typically, land use plans are scheduled for revision every 15 to 20 years, but often are in place for much longer periods of time. Federal land use plans provide the basis for on the ground actions an agency may take. Because of their far-reaching impact on both man and his environment, land use plans must be accompanied by an environmental impact statement (EIS) as required by the National Environmental Policy Act (NEPA).

Local governments also use land use plans to identify acceptable uses of lands within their boundaries. Congress has recognized local entities' health, safety, welfare, custom, culture, heritage and socio-economic wellbeing are intimately tied to the management of the surrounding federal lands and has recognized state's, local governments' and tribal governments' roles in the federal land use planning and management process. Federal agencies may have supremacy where federal law provides for specific jurisdiction, but many federal statutes recognize state responsibilities for air, water, roads, law enforcement, emergency services, noxious weeds, cultural resources, wildlife, solid & hazardous waste and other issues, in addition to local responsibilities for the health, safety and welfare of the citizens. And, where federal law is silent, state, local and tribal laws, plans, policies and programs may take precedence over discretionary federal actions. Federal statutes and regulations also require federal agencies to: a) achieve a productive and enjoyable harmony between man and his environment (often termed consistency with state, local and tribal plans, policies and programs); b) provide meaningful opportunities for cooperation between federal agencies and states, local governments and tribes; and c) coordinate federal actions with the plans, policies and programs of affected states, local and tribal governments. Moreover, counties are required by Utah law to oversee the economic, social, and general wellbeing of the people and resources within their jurisdictions and to provide general and resource management plans to serve as the basis for consistency, cooperation and coordination with federal agencies managing lands within the county's boundaries.

Aside from specific expectations for federal land management, local land use plans may also include information about an area's history, economic base, custom, culture, heritage, and traditional ethnographic uses (both extractive and recreational) on federal lands, as well as the local government's plans, policies and programs. Depending on the plan, a variety of other expectations, requirements and background information may be included. But ultimately, all local land use plans have the same purpose: to serve as an officially adopted baseline document

identifying acceptable management approaches on federal and non-federal lands within the local government's boundaries.

1.5.2 COORDINATION

Coordination is a congressionally mandated process that requires federal agencies to work with local governments to seek consistency and cooperation between federal land use planning actions and local land use plans and policies. Coordination requires federal agencies do more than just inform local governments of their future management plans and decisions, and it requires that federal agencies do more than merely solicit comments from local government entities. Coordination calls for negotiation on a government-to-government basis that seeks to ensure officially approved local plans and policies are accommodated by planning and management decisions on federal lands. The mandate to coordinate comes from NEPA, CEQ Regulations, FLPMA, NFMA, NPS policy, and other federal guidance regulating planning activities of federal agencies.

Coordination is not limited to the process of bringing federal and local land use plans into harmony with each other. Coordination goes beyond comprehensive land use plans, both on the part of the local government and the federal agencies. Coordination also considers policies, resolutions, ordinances, and programs adopted by local governments which relate to the management of federal lands. Coordination requires an ongoing process in which a local government interacts with a federal agency on a regular basis to discuss anticipated management actions on federal land, and continually balances those actions against the local government's land use plan or policies. BLM statute, regulations, and applicable case law recognize that coordination applies to BLM management activities as well as to land use plans. Forest Service statutes and regulations explicitly recognize that coordination applies to land use plans, resource management plans and planning related to roads, trails and areas. Park Service regulations require information regarding the process used to coordinate with local governments as part of every environmental impact statement. And implementation of NEPA requires cooperative alignment of federal and non-federal programs.

Coordination is not optional. FLPMA and NFMA require the BLM and the Forest Service to coordinate land use planning actions with local government plans and policies. NEPA regulations adopted by the Department of the Interior have similar coordination requirements for NPS units (see National Park Service NEPA Handbook, 2015). However, the agencies' governing statutes and regulations explain coordination with varying degrees of detail.

FLPMA provides a detailed baseline for the coordination process and identifies at least four specific BLM actions: 1) Remain informed of local land use plans; 2) Guarantee that local land use plans are given proper consideration; 3) Attempt to resolve inconsistencies between local and BLM land use plans; and 4) Provide meaningful involvement for local entities early and throughout the decision making process.

Federal responsibilities regarding the Forest Service's coordination with local governments is less descriptive than explained in FLPMA. However, coordination with the Forest Service is still a substantive process. The Forest Service is explicitly directed in NFMA to coordinate with local governments, and the agency must engage in a process that involves some level of mutual accommodation that is significantly more than a mere perusal of the local plan. NFMA does not specify how the process of coordination is to be accomplished, but the Forest Service is expected to engage in a meaningful process with local governments and to seek to harmonize local and Forest Service plans and decisions. Specifically, Forest Service regulations require:

a) Responsible officials coordinate with local governments.

b) Responsible officials shall review local plans and policies that are relevant to the federal plan. The review will consider the objectives of local plans, the compatibility and interrelated impacts between local and federal plans, opportunities to address impacts and contribute to joint objectives, and opportunities to resolve or reduce conflicts. This review must be included in the accompanying federal environmental document.

c) The responsible official will not direct or control management of lands outside of the planning boundary.

Coordination between local government and the Forest Service must be a substantive process, and the federal agency should seek interaction with on a regular basis, share planning information as early as possible, and engage in a good faith effort to harmonize Forest Service plans with local land use plans and policies.

NPS coordination requirements are outlined in Department of Interior regulations implementing NEPA and in NPS specific guidance. NPS units and programs are expected to consult, cooperate, and coordinate with other federal, state, local, and tribal governments and other bureaus and federal agencies whenever possible (43 CFR 46.155).

Policy: Millard County demands Coordination to the maximum extent allowed by federal law.

Finding: Millard County finds Coordination is the basic process necessary for achieving the national policy of encouraging productive and enjoyable harmony between man and his environment.

1.5.3 COOPERATION

Cooperation between federal land managers and local governments is often related to *Cooperating Agency Status* as defined in Council on Environmental Quality Regulations implementing NEPA. These regulations apply to all federal agencies and recognize the special status of states, local governments and tribes. Statutes authorizing Cooperating Agency roles are identical for states, local governments and tribal governments and in some cases federal entities. Additional clarification has been added in the form of desk guides, handbooks, executive orders and court rulings. There is no known law requiring any differentiation between the various levels of eligible entities. Unless prohibited by law, Millard County demands treatment as a Cooperating Agency equal to other federal entities, states and tribal governments.

In addition to providing meaningful involvement early and often through cooperating agency status, federal agencies are to harmonize their planning process with local plans, policies and programs as indicated by the companion terms of coordination and consistency. Read as a whole, congressional mandates clearly support local government's influence on federal planning processes.

Cooperating agency status only occurs in the context of specific environmental analysis conducted under NEPA and ends when the NEPA process is completed. Cooperating agencies are members of the interdisciplinary NEPA team, and can recommend that the lead agency undertake certain scientific studies, and recommend existing research for inclusion in the analysis.

Policy: Unless prohibited by law, Millard County demands treatment as a Cooperating Agency equal to other federal entities, states and tribal governments.

Policy: Millard County demands Cooperation and inclusion as a Cooperating Agency to the maximum extent allowed by federal law.

Finding: Millard County finds Cooperation is a basic process necessary for achieving the national policy of encouraging productive and enjoyable harmony between man and his environment.

Finding: Millard County finds that cooperating agency status must be offered at the earliest possible date and prior to scoping. Earliest possible date means no later than when a federal agency initially considers an undertaking, when a federal agency identifies a project lead or members of an interdisciplinary team, or when an agency is notified of funding to perform an undertaking, whichever occurs first.

Policy: Millard County demands meaningful involvement as a Cooperating Agency to the maximum extent allowed by federal law.

1.5.4 CONSISTENCY

Consistency between federal, state, local and tribal plans is the desired outcome for the coordination and cooperation processes required of federal agencies. It is unreasonable and contrary to law that federal agencies would attempt to manage federal lands interspersed with state and private lands without considering the impact federal actions have on other entities and without considering the impacts the non-federal agencies have on them. Two of the purposes of NEPA are:
1) encourage productive and enjoyable harmony between man and his environment; and
2) stimulate the health and welfare of man. In fact, the Merriam-Webster dictionary defines consistency as:

a) *agreement or harmony of parts or features to one another or a whole* and

b) *harmony of conduct or practice with profession* (emphasis added). Harmony and consistency are synonymous and constitute the ability of an act to be completed without contradiction.

Local officials are charged with the responsibility of promoting and preserving the health, safety and welfare of their citizens – the "man" component of NEPA. Federal agencies are charged with the responsibility of managing land and resources – the "environment" component of NEPA. It logically follows, in order to achieve the national policy outlined in NEPA, federal plans must be consistent with non-federal plans unless authorized by laws circumventing NEPA.

Congress further emphasized the national policy of consistency/harmony by requiring federal agencies to coordinate under FLPMA and NFMA and to cooperate under CEQ Regulations.

The failure of a federal plan or action to be consistent with a local land use plan can only be justified by reference to a resulting violation of federal law. In other words, where federal land use plans are inconsistent with local land use plans, the burden is on the federal agency to show how adhering to the local plan would result in a violation of federal law. Moreover, NEPA, federal regulations and agency directives clearly indicate consistency (or harmony) is a strong requirement in and of itself.

Finding: Millard County finds the only/optimal way to comply with national policy of encouraging productive and enjoyable harmony between man and his environment established in NEPA is for federal agencies to be consistent (in harmony) with state, local and tribal plans to the maximum extent allowed by federal law.

Finding: Millard County finds federal plans that are inconsistent with local plans – unless specifically mandated by federal law – violate national, statutory policy outlined in NEPA.

Policy: Millard County will coordinate and cooperate with federal agencies to achieve consistency between federal and local plans in order to encourage and obtain the productive and enjoyable harmony between man and his environment outlined in NEPA.

Policy: Millard County demands federal agencies achieve consistency between federal and local plans in order to encourage and obtain the productive and enjoyable harmony between man and his environment outlined in NEPA.

Policy: Millard County adopts an "Equal, Not Subordinate" standard for Coordination, Cooperation and Consistency associated with federal, state and local planning.

Finding: Millard County finds and declares federal agencies that fail to achieve consistency with local plans, unless mandated to the contrary by specific federal statute, are in violation of NEPA and local law.

Policy: Where federal land use plans are inconsistent with local land use plans, the burden is on the federal agency to demonstrate how adhering to the local plan will result in a violation of federal law.

Policy: "Consistent*"* means federal plans will adhere to the terms, conditions, and decisions of officially approved and adopted local resource management plans, or in their absence, with policies and programs, subject to the provisions of federal law.

1.6 ENVIRONMENTAL CONSEQUENCES

The overriding authority for this planning effort is CEQ's implementation of the National Environmental Policy Act which outlines significant federal requirements for consistency, consultation, coordination, and cooperation. In addition, NEPA requires federal agencies consider and document the cumulative impacts associated with all federal actions (in this case agency planning and implementation efforts by the BLM and the US Forest Service) to include impacts to not only local land bases and environments, but also the economic and social impacts that will result from decisions arising from federal planning efforts.

The National Environmental Policy Act also requires that all major federal actions be subject to environmental analysis before they are undertaken to determine the consequences of the proposed action. The analysis must include direct, indirect and cumulative effects of the proposed actions and must consider a reasonable range of alternatives including a no action alternative. The process must also consider relevant state and local plans and provide meaningful involvement for state, local and tribal governments.

Over the past few decades federal land management practices and their associated environmental documentation have failed to properly incorporate consistency, consultation, coordination and cooperation and have failed to accurately account for negative impacts affecting the custom, culture, and socioeconomic viability of the County. In addition, these documents fail to consider the cumulative effects across agency boundaries and the total aggregate effect on County visitors and residents. This is evidenced by a decline in traditional natural resource based industries in a State that is rapidly growing and expanding business. Failure to accurately depict the socioeconomic impact of prescriptive land management decisions has resulted in the loss of traditional industries and a one-dimensional, recreation oriented economy. Although income derived from tourism has increased, revenues derived from recreation, especially from the lands reserved for primitive recreation, have failed to provide sufficient income to sustain families and local communities.

Federal agencies must accurately depict direct, indirect, and cumulative impacts across the entire County in their environmental analysis. Where Millard County has established baseline figures, data, impact analysis, revenue rates, or other established positions regarding custom, culture, or socioeconomic information, the data must be used in environmental analysis. Agencies which fail to use the information or which substitute other findings without concurrence of Millard County are inconsistent with the Millard County General Management Plan, arbitrary, capricious, and fail to accurately depict environmental consequences of proposed actions.

Environmental analysis of proposed actions that are demonstrated to be inaccurate by more than 10% after three years should be reevaluated, reviewed, and revised in order to meet the intent of plan monitoring and maintenance. Failure to perform such re-evaluation processes constitutes a failure to monitor and maintain existing plans and is considered to be irresponsible agency action.

1.7 SOCIO-ECONOMIC CONSIDERATIONS

Introduction:

All economic activity in the arid and semiarid western United States depends on adequate dependable water supplies. Millard County is just as dependent on water availability as the rest of the interior West. Millard County's water supply is dependent upon the health of the watersheds in the County. The watersheds are almost exclusively on Federal Lands managed by the US Forest Service or Bureau of Land Management. Therefore, how these watersheds are managed determines the long run sustainability of Millard County and the rest of the arid and semiarid West.

Industries in Millard County:

The industries in Millard County are dependent upon the natural resources in the County. This dependence may be from the direct use of resources or service of public lands, the indirect use or service by supplying goods and services to those who directly use the resources or services, or from the induced effects of the money generated in the county by direct, indirect and other induced economic activities.

Agricultural and Forestry Industries:

The agricultural sector in 1994 was composed of 16 different industrial classifications producing output valued at $102.9 million in 2015 dollars. Agricultural operations employed 960 people. By 2015 the agricultural sector was composed of 14 different industrial classifications producing output valued at $248 million and employed 1050 people. In Millard County agriculture is dominated by dairy, cattle and hay production with output valued at $213.6 million and employs 918 people. The social, cultural and character aspects? has its foundation in agriculture and natural resources. Agriculture and natural resources has provided for community stability and resilience throughout the history of Millard County. Millard County was settled because of its natural resources that could maintain them and their families for generations.

Mining and Petroleum Industries:

The mining and petroleum sectors in 1994 produced output valued at $37.8 million in 2015 dollars. Mining and petroleum operations employed 136 people. By 2015 the mining and petroleum sectors produced output valued at $133.9 million and employed 151 people.

Electric Power Industries:

The electric power generation sector in 1994 produced output valued at $227.6 million in 2015 dollars. Mining and petroleum operations employed 463 people. By 2015 the electric power sector produced output valued at $818.3 million and employed 572 people. This industry is the largest economic driver in the county.

Tourist Industries:

Tourist industries have been a minor part of the Millard County economy. Most of the tourists are passing through the county and need a place to stay for the night or a place to eat. In 1994 tourist industries accounted for about $18.6 million in 2015 dollars and employed about 438 people. By 2015 tourist industries account for about $20.7 million and employed about 349 people.

Service Industries:

Since 1994 service industries have grown the most in Millard County. In 1994 service industries accounted for about $106.4 million in 2015 dollars and employed about 1,188 people. By 2015 this had grown to about $218.8 million and employment grew to about 2006 people. Included in service industries are Banking, Credit Agencies, Security and Commodity Brokers, Insurance Carriers, Insurance Agents and Brokers, Owner-occupied Dwellings, Real Estate, Laundry, Cleaning, Shoe Repair, Portrait and Photographic Studios, Beauty and Barber Shops, Funeral Service and Crematories, Miscellaneous Personal Services, Advertising, Other Business Services, Photo-finishing, Commercial Photography, Services To Buildings, Equipment Rental and Leasing, Personnel Supply Services, Computer and Data Processing Services, Detective and Protective Services, Automobile Rental and Leasing, Automobile Parking and Car Wash, Automobile Repair and Services, Electrical Repair Service, Watch, Clock, Jewelry and Furniture Repair, Miscellaneous Repair Shops, Motion Pictures, Theatrical Producers, Bands, Bowling Alleys and Pool Halls, Commercial Sports Except Racing, Racing and Track Operation, Amusement and Recreation Services, N.E.C., Membership Sports and Recreation Clubs, Doctors and Dentists, Nursing and Protective Care, Hospitals, Other Medical and Health Services, Legal Services, Child Day Care Services, Social Services, N.E.C., Residential Care, Other Nonprofit Organizations, Business Associations, Labor and Civic Organizations, Religious Organizations, Engineering, Architectural Services, Accounting, Auditing and Bookkeeping, Management and Consulting Services, Research, Development and Testing Services, Domestic Services, etc. Service industries cover many types of businesses many which are not in Millard County.

Air Quality:

The social economic impacts of air quality are complex because while the monetary costs of pollution control are easily calculated, the benefits take place over a much longer time period and over a large diverse population of beneficiaries that are difficult to comprehensively identify.

As a rural county that has limited development relative to its landmass most of Millard County is classified as a Type II Air Shed. Type II Air Sheds are designated to limit significant deterioration of air quality within the air shed.

The management of social economic activities of approximately 75% of the landmass is done by federal agencies. Therefore, how these agencies operate is a major determinate of air quality in the county. The other 22% fall under EPA Utah Department of Environmental Quality Division of Air Quality.

Among Millard County Air Quality desired conditions are:

1. Millard County's air quality be maintained or improved while allowing development of projects needed for socio-economic stability.
2. Federal agencies quantify and mitigate impacts from drift, fugitive dust and fires prior to restricting projects needed for socio-economic stability.
3. Natural fugitive dust is reduced through improved vegetative cover, vigor and utilization.
4. Federal agencies resolve inconsistencies with biogenic pollutants, natural fugitive dust, wildland fire and prescribed fire prior to restricting projects needed for socio-economic stability.
5. Air quality should be cooperatively managed and coordinated by local, State and Federal agencies.

Social-economic Benefits:

As these 5 desired conditions are achieved the following social-economic benefits will be realized:

1. Minimal air quality deterioration as development occurs
2. Improved landscape health
3. Less erosion by wind and water

4. Increased vegetative diversity
5. Increased wildlife habitat and specie diversity
6. Increased social-economic sustainability.
7. Decreased tension between residents and agency personnel
8. Increased economic benefit from public land through services and goods
9. Fewer wildfires with their associated air quality, biologic, erosion, and other costs
10. View-shed are maintained and in some cases enhanced
11. Increased watershed health and water yield
12. Increased water quality and reduced sediment in rivers and streams
13. Increased soil health and productivity

Soils:

Soils are said to be living organisms because they have both a mineral component and an organic component. The mineral component provided the underlying structure, inorganic nutrient and in large measure the water holding capacity of the soil. The type of minerals and the amount of organic matter in the soil determines its productive capacity of the soil. The productive capacity determines the potential economic value of the land. The productive capacity determines the amount and kind vegetation that the soil can support under the climate and weather conditions.

Healthy productive soils provide for wildlife and human needs. To assure healthy soils

Millard County desires the following future conditions:

1. 80% of the soils in Millard County are producing at least 60% of their productive capacity.
2. Encroaching Class I conifers are managed to limit their extent to pre-European settlement conditions.
3. Class II and Class III Pinyon/Juniper woodlands are managed to limit their extent to pre-European settlement conditions.
4. Soils are stabilized through vegetative treatments that utilize an optimum combination of native and non-native species.

5. Surface disturbing activities are managed consistent with Millard County's Best Management Practices.

6. A reduction of soil loss on watersheds in Millard County by performing appropriate land treatments and restoration of desirable sagebrush / semi-desert grassland vegetation communities.

7. Surfaces disturbances are reclaimed in a timely manner during or upon completion of authorized activities, as appropriate.

8. Temporary roads be evaluated to determine if continued use provides a benefit to the public without jeopardizing land health.

9. Fragile soils are identified during preparation of project-level plans, and necessary mitigation measures are developed to allow the project to move forward, while minimizing risks and degradation to soil resources

Social-economic Benefits:

As these 9 desired conditions are achieved the following social-economic benefits will be realized:

1. Minimal air quality deterioration as development occurs

2. Improved landscape health

3. Less erosion by wind and water

4. Increased vegetation and vegetative diversity

5. Increased social-economic sustainability.

6. Decreased tension between residents and agency personnel.

7. Increased economic benefit from public land through services and goods.

8. Fewer wildfires with their associated air quality, biologic, erosion, and other costs.

9. View-shed are maintained and in some cases enhanced.

10. Increased watershed health and water yield

11. Increased water quality and reduced sediment in rivers and streams

12. Increased soil health and productivity

13. Increased wildlife habitat and specie diversity

Water Resources:

All economic activity in the arid and semiarid western United States depends on adequate dependable water supplies. Millard County's water supply is dependent upon the health of the watersheds in County. Ninety-three percent of the land in Millard County watersheds are exclusively managed by the US Forest Service, Bureau of Land Management, or National Park Service. Therefore, how these watersheds are managed determines the long run sustainability of Millard County and the rest of the arid and semiarid West. Millard County's watersheds provide water along the Sevier River Drainage in Utah and along the Colorado River Drainage in Utah, Arizona, Nevada, and California. No attempt is make to put a dollar value on the benefits of healthy watersheds in Millard County.

Millard County has identified the following desired future conditions:

1. Scarce water resources are maximized for the beneficial use of man
2. Land managers prepare for changing climatic conditions by optimizing land health by while protecting and enhancing multiple-use activities
3. A greater emphasis be placed on water development projects that optimize use and benefit of scarce water resources
4. Land managers eradicate undesirable riparian species and noxious weeds in Millard County.
5. Land mangers maximize desirable native and non-native vegetative cover to optimize use of water resources.

Social-economic Benefits:

As these 5 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased watershed health and water yield
2. Increased social-economic sustainability.
3. Increased water quality and reduced sediment in rivers and streams
4. Increased soil health and productivity
5. Increased vegetation and vegetative diversity
6. Improved landscape health

7. Increased wildlife habitat and specie diversity
8. Increased economic benefit from public land through services and goods.
9. Less erosion by wind and water
10. Decreased tension between residents and agency personnel.
11. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.
12. View-shed are maintained and in some cases enhanced.

Hydrology:

Millard County desires:

1. Land management agencies significantly increase implementation of projects to improve vegetative cover, stream bank stabilization, water detention, and eradication of undesirable invasive species.
2. Land managers increase native and non-native vegetative ground cover percentages to 50% of soil potential by 2025 and 70% by 2050.
3. Land managers prioritize structural and non-structural projects and best management practices that are designed to reduce stormwater volume, peak flows, and/or nonpoint source pollution through evapotranspiration, infiltration, detention, hydrograph extension, and filtration over restricting human development and multiple-use / sustained yield activities.
4. Land managers implement structural and non-structural perennial, intermittent and ephemeral stream stabilization projects that reduce stream sedimentation and erosion while enhancing riparian areas, wetlands and vegetation for wildlife and livestock.
5. Undesirable vegetation in and near watercourses is removed and replaced with desirable native and non-native vegetation communities that retain bank stability and provide appropriate channel shade.
6. Acceptable ground cover is recruited, established, re-established, or retained after prescribed and wildland fire prior to the first season prone to erosive storms,
7. Land managers coordinate programmatic agreements, best management practices and prioritization schedules for improving hydrologic functions and conditions with Millard County.

8. Enhanced programmatic agreements and best management practices associated with prescribed and wildland fire are implemented to protect hydrologic function and condition in Millard County.

Social-economic Benefits:

As these 8 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased watershed health and water yield. The Natural Resources Conservation Service identified 75,976 acres as forest lands and about 3,554,738 acres as rangelands. If these conditions are met water yield most likely will increase by 0.5 acre feet per acre for forest lands and 0.05 acre feet per acre of rangeland. If the water is valued at $3,000 per acre foot, then the economic value of the water yield would increase by approximately $650 million. This value can be realized in the Great Basin and does not include the value for wildlife, fish or recreation on or in the rivers, streams, lakes and reservoirs.
2. Increased social-economic sustainability.
3. Increased water quality and reduced sediment in rivers and streams
4. Increased soil health and productivity
5. Increased vegetation and vegetative diversity
6. Improved landscape health
7. Increased wildlife habitat and specie diversity
8. Increased economic benefit from public land through services and goods.
9. Less erosion by wind and water
10. Decreased tension between residents and agency personnel.
11. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.
12. View-shed are maintained and in some cases enhanced.

Water Rights & Irrigation:

Millard County desires:

1. Adequate water is developed to meet the diverse current and future needs of Millard County.

2. Existing water resources be augmented and historic resources be restored through appropriate timber harvests, restoration of at least 2% annually of Class II and Class III pinyon/juniper woodlands to sagebrush / grassland habitats, and control of invasive weeds.

3. Water related issues are coordinated with Millard County and managed consistent with Millard County's Resource Management Plan.

4. Federally reserved water rights be limited to the minimum allowed by an entity's enabling legislation.

5. Federal, state and local entities coordinate definitive resolution of federal reserved water rights consistent with the provisions of this RMP.

6. The State of Utah develops definitive resolution regarding ownership of water rights on federal lands for wildlife, livestock and other authorized uses.

7. Irrigation rights be preserved to the maximum extent allowed by law.

Social-economic Benefits:

As these 7 desired conditions are achieved the following social-economic benefits will be realized:

1. All social-economic activities in Millard County are dependent on adequate, dependable, and secure water. The desired conditions assure that Millard County's social, cultural and economic condition are secured and can grow at a sustainable rate. The value of water to Millard County future cannot be overstated.

2. Decreased tension between residents and agency personnel.

Irrigation:

Millard County desires:

1. Irrigation be preserved, improved and enhanced and federal land mangers support preservation, improvement and enhancement of irrigation on private lands through appropriate actions on federal lands.

2. Irrigation be recognized a cultural resource and management actions be taken that will result in preserved, improved and enhanced irrigation.

3. Land managers implement avoidance, minimization and mitigation techniques and best management practices to support irrigation while allowing appropriate multiple-use / sustained yield activities to proceed.

4. Land managers recognize Millard County is not the primary headwaters of the Sevier River and actions upstream impact Millard County.

5. Unimpeded and efficient flow of current and future irrigation waters across federal lands.

6. Appropriate irrigation related resources be added to the County's list of historic/cultural resources and landmarks.

7. Removal of encroaching pinyon / juniper woodlands, Tamarisk, Russian Olive, and cheatgrass which negatively impact water quality, water quantity and irrigation resources in Millard County.

8. Lands are managed to increase water development and resources.

Social-economic Benefits:

As these 8 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased social-economic sustainability. From settlement to the mid-twentieth century Millard County residents depended on what they raised in their local communities and on their ranches. Irrigation was and is required to grow crops in Millard County. These activities because the foundation of the social, cultural and character fabric of the community and economy. Continued irrigation is essential to the culture of Millard County.

2. Increased watershed health and water yield.

3. Increased water quality and reduced sediment in rivers and streams

4. Increased soil health and productivity

5. Increased vegetation and vegetative diversity

6. Improved landscape health

7. Increased wildlife habitat and specie diversity

8. Increased economic benefit from public land through services and goods.

9. Less erosion by wind and water

10. Decreased tension between residents and agency personnel.

11. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.

12. View-sheds are maintained and in some cases enhanced.

Surface Waters:

Millard County Desires:

1. Land managers preserve, enhance, improve or optimize surface water resources through active management, especially watershed restoration and improving desirable native and non-native vegetative ground cover.

2. The regulatory control of surface waters under the current Clean Water Act as of 2016 needs to be recognized and implemented.

3. Land managers need to cooperate and coordinate in accordance with federal laws, regulations, rules, and manuals regarding state and local direction of water resource management issues.

4. Surface waters be re-evaluated to verify the designated beneficial use is consistent with hydrologic and environmental conditions. Stream reaches identified as not meeting standards for cold water fisheries need to be reconsidered for classification as a warm water fishery.

5. Upland soil loss due to lack of desired vegetative ground cover be recognized as the primary source of nonpoint pollution in Millard County.

6. The provisions of this RMP be accepted as the controlling maintenance, mitigation, enhancement, and improvement standard for surface water resources in Millard County, until such time as state and federal agencies coordinate surface water management and Implementation plans with Millard County.

7. Invasion and encroachment of undesirable watercourse vegetation, pinyon / juniper woodlands and other undesirable species is recognized as negatively impacting surface waters to a much greater extent than human development and impacts from man.

Social-economic Benefits:

As these 7 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased social-economic sustainability.
2. Increased watershed health and water yield.
3. Increased water quality and reduced sediment in rivers and streams
4. Increased soil health and productivity
5. Increased vegetation and vegetative diversity
6. Improved landscape health
7. Increased wildlife habitat and specie diversity
8. Increased economic benefit from public land through services and goods.
9. Less erosion by wind and water
10. Decreased tension between residents and agency personnel.
11. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.
12. View-shed are maintained and in some cases enhanced.

Ditches & Canals:

Millard County desires:

1. Existing ditches be preserved, enhanced, and improved to permit the unimpeded flow of water.
2. Ditches and canals be recognized as important cultural resources and their function be preserved, enhanced and improved.

Social-economic Benefits:

As these 2 desired conditions are achieved, the following social-economic benefits will be realized:

1. Increased social-economic sustainability.
2. Increased understanding of the historic value water delivery structures and their social and cultural impacts on the communities.

3. Increased understanding of the importance of secure water rights to the future development of the County
4. Increased soil health and productivity
5. Increased vegetation and vegetative diversity
6. Improved landscape health through improved water distribution
7. Increased wildlife habitat and specie diversity in hay fields and irrigated pastures.
8. Less erosion by wind and water through more vegetative cover and root density.
9. Increased security of rights-of-way for water distribution structures
10. View-sheds are maintained and in some cases enhanced.

Rivers & Streams:

Millard County desires:

1. The beneficial use of Millard County's rivers and streams be maximized through protection and development of water quantity and quality and through more aggressive vegetative management in watersheds and other areas impacting rivers and streams.
2. Land managers actions are consistent with Millard County's plans, programs and policies for resources impacting rivers and streams, including but not limited to actions for vegetation, water quality, pinyon/juniper reduction, fish & wildlife, livestock grazing, special status species, and soil resources to the maximum extent allowed by law.
3. Wild, scenic and recreational river evaluations and designations are consistent with Millard County's criteria, plans, programs and policies.
4. Increased access for law enforcement and emergency medical services, solid waste collection services, human waste collection services, recreation, and the general public is provided to Millard County's rivers and streams, especially on public lands.
5. Impaired waters in the Sevier River watershed are reclassified to include only those tributaries with native targeted fish populations and conditions suitable current designations.
6. Class II and Class III pinyon/juniper woodlands are reduced by 2.5% on a rolling 10 year average and replaced with desirable vegetative communities in Millard County and in the upstream watersheds to reduce erosion and impacts to the County's rivers and streams.

7. Additional structural (dams, reservoirs, impoundments, etc.) and non-structural improvements are constructed to improve the efficiency of Millard County's rivers and streams.

8. Transplantation of beavers are limited to only those areas which are approved by the Millard County Commission and that will not impede the free flow of water.

9. Undesirable vegetation and noxious weeds are eradicated from all of Millard County's public land rivers and streams and their associated riparian zones.

Social-economic Benefits:

As these 9 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased watershed health and water yield

2. Increased water security through additional storage capacity.

3. Increased flood control capacity.

4. Increased social-economic sustainability.

5. Increased water quality and reduced sediment in rivers and streams

6. Increased soil health and productivity

7. Increased vegetation and vegetative diversity

8. Improved landscape health

9. Increased wildlife habitat and specie diversity

10. Increased economic benefit from public land through services and goods.

11. Less erosion by wind and water

12. Decreased tension between residents and agency personnel.

13. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.

14. View-shed are maintained and in some cases enhanced.

15. Increased opportunities for non-consumptive uses of water resources.

Floodplains & River Terraces:

Millard County desires:

1. Floodplains, especially on undeveloped federal lands, are restored to properly functioning conditions.
2. Coordinated, strategic planning is implemented to outline a plan of attack to restore uplands, floodplains and vegetation and to improve rangeland health.
3. Structural and non-structural improvements are made to degraded watercourses and floodplains.
4. The role of upland watershed management is recognized and incorporated in floodplain management and restoration.
5. Structural and non-structural improvements are made to degraded uplands to:

   a) replace Class II and Class III pinyon/juniper woodlands with desirable historic vegetative communities,
   b) reduce runoff and
   c) reduce the amount of bare ground.
6. Check dams and restoration projects are implemented to arrest down-cutting and to restore natural stream grade and sinuosity.
7. Active management and restoration projects on federal lands are implemented to restore sinuosity, vegetation and floodplain function which mimic the natural hydrologic system.
8. Long term hydrologic function is prioritized over short term ground disturbance.
9. Analysis/approval processes for floodplain restoration are simplified and authorized as categorical exclusions under NEPA. Corps of Engineers and other federal agency involvement are eliminated or reduced to the minimum required under law.
10. Land managers restore to properly functioning condition at least 1% or 10 miles of non-functioning floodplains per year.

Social-economic Benefits:

As these 10 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased watershed health and water yield
2. Increased water security through additional aquifer recharge.
3. Increased flood control capacity by health floodplain's water-holding capacity and slow return to flowing rivers and stream.

4. Increased social-economic sustainability by reducing damage outside the floodplain.
5. Increased water quality and reduced sediment in rivers and streams
6. Increased soil health and productivity
7. Increased vegetation and vegetative diversity
8. Improved landscape health
9. Increased wildlife habitat and specie diversity
10. Increased economic benefit from public land through non-consumptive uses.
11. Less erosion by wind and water
12. Decreased tension between residents and agency personnel.
13. View-shed are maintained and in some cases enhanced.

Dry Washes & Ephemeral Streams:

Millard County desires:

1. Dry washes and ephemeral streams, especially on undeveloped federal lands are recognized as properly functioning natural resources. Restoration of channel banks be addressed where devastating erosion will impact future ecology and soil management.
2. Coordinated, strategic planning is implemented to restore uplands, vegetation and to improve rangeland health associated with dry washes and ephemeral streams.
3. Structural and non-structural improvements are made to degraded watercourses, dry washes and ephemeral streams.
4. The role of upland watershed management is recognized and incorporated in dry wash and ephemeral stream management and restoration.
5. Structural and non-structural improvements are made to degraded uplands to:

   a) replace Class II and Class III pinyon/juniper woodlands with desirable historic vegetative communities,

   b) reduce runoff, and

   c) reduce the amount of bare ground.

6. Check dams and restoration projects are implemented to arrest downcutting and to restore natural grade, vegetation, cross section, and sinuosity in dry washes and ephemeral streams.

7. Active management and restoration projects on federal lands are implemented to restore sinuosity, vegetation and floodplain function which mimic the natural hydrologic system.

8. Long term hydrologic function is prioritized over short term ground disturbance.

9. Analysis/approval processes for dry wash and ephemeral stream restoration are simplified and authorized as categorical exclusions under NEPA. Corps of Engineers and other federal agency involvement are eliminated or reduced to the minimum required under law.

10. Land managers restore to properly functioning condition at least 2% of non-functioning dry washes and ephemeral streams per year.

Social-economic Benefits:

As these 10 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased watershed health and water yield

2. Increased water security through additional aquifer recharge.

3. Increased flood control capacity by slowing the water velocity as it flows into constantly flowing rivers and stream.

4. Increased social-economic sustainability by reducing damage outside the floodplain.

5. Increased water quality and reduced sediment in rivers and streams

6. Increased soil health and productivity

7. Increased vegetation and vegetative diversity

8. Improved landscape health

9. Increased wildlife habitat and specie diversity

10. Increased economic benefit from public land through non-consumptive uses.

11. Less erosion by wind and water

12. Decreased tension between residents and agency personnel.

13. View-shed are maintained and in some cases enhanced.

Groundwater:

Millard County desires:

1. Groundwater resources are preserved, improved and developed for the use of man while supporting multiple-use and sustained yield principles.
2. Land mangers comply with current and future laws and regulations promulgated by federal, state and local entities.
3. Land managers optimize forest and rangeland health and vegetative cover as a means of preserving and protecting groundwater resources.
4. Watersheds that are the source of supply for community and culinary water systems be managed for resistance and resilience to fire.
5. Groundwater resources are managed under the principles of multiple-use and sustained yield, with community and culinary water systems as the highest priority.
6. Groundwater resources are protected through appropriate implementation of best management practices applied to human and multiple-use/sustained yield activities.
7. Groundwater resources in the Pahvant Valley, Sevier Valley, Snake Valley, Hamlin Valley, Wah Wah Valley, Tule Valley, and Ferguson Desert are carefully managed to accommodate historic uses and potential growth.

Social-economic Benefits:

As these 6 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased watershed health and water yield
2. Increased water security through additional aquifer recharge.
3. Increased social-economic sustainability through increased water security in droughts.
4. Increased water quality.
5. Increased vegetation and vegetative diversity
6. Improved landscape health
7. Increased wildlife habitat and specie diversity
8. Increased economic benefit from public land through non-consumptive uses.

9. Less erosion by wind and water

10. Decreased tension between residents and agency personnel.

11. View-shed are maintained and in some cases enhanced.

12. The Pahvant Valley, Sevier Valley, Snake Valley, Hamlin Valley, Wah Wah Valley, Tule Valley, and Ferguson Desert made sustainable.

Water Quality:

Millard County Desires:

1. The quality and quantity of existing water resources be improved and enhanced.

2. Millard County has a more active role in water quality management.

3. Implementation of County water quality plans, regulations, ordinances and best management practices for forest and rangelands to reduce sediment and debris in the County's watercourses.

4. Without diminishing existing multiple-use levels and uses, implement Best Management Practices, including vegetative treatments and restoration of invasive conifer woodlands to sagebrush / semi-desert grasslands, to reduce pollutant loading in impaired streams and to reduce sedimentation in all perennial, intermittent and ephemeral watercourses.

5. Degrading water quality, especially in ephemeral water courses, resulting from encroaching conifers and inadequate desirable vegetative cover be recognized for their impacts on water quality.

6. Site specific and cumulative impact analysis of Class II and Class III pinyon / juniper woodlands on water quality be included in future NEPA analysis.

7. Beneficial uses of water bodies in Millard County be coordinated, evaluated and brought in to consistency with Millard County's Resource Management Plan.

8. Land managers actively manage for increased forage production to reduce sedimentation in and hydrologic modification of Millard County's perennial, intermittent and ephemeral water resources.

9. Land managers develop additional detention areas, lakes, ponds, wetlands, riparian areas, grade structures, and mesic conditions to slow stormwater and reduce erosion.

10. Consistent with ecologic site conditions, land managers replace biologic soils and pinyon / juniper woodlands with sagebrush, semi-desert grasslands to increase vegetative soil cover and reduce sediment transport and erosion.

11. While developing additional detention areas, lakes and ponds, land managers recognize stormwater management approaches that rely solely on peak flow storage do not usually targeted pollution reduction and only treat sediments after they have entered the watercourse.

12. Upland vegetative productivity and cover also needs to be enhanced and optimized with appropriate native and non-native seed mixes.

13. Consistent with ecologic site descriptions and the County's RMP, land managers improve the vegetative productivity of their soils.

14. Consistent with ecologic site descriptions, Millard County soils produce at least 50% of their potential productive capacity by 2025 and at least 70% of their potential by 2050.

15. Consistent with ecologic site descriptions and based on a 10 year rolling average, land managers restore 2.5% of Class II and Class III pinyon / juniper woodlands to sagebrush / semi-desert grassland habitat

As these 15 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased water shed health and water yield

2. Increased water security through additional storage capacity.

3. Increased flood control capacity.

4. Increased social-economic sustainability.

5. Increased water quality and reduced sediment in rivers and streams

6. Increased soil health and productivity

7. Increased vegetation and vegetative diversity

8. Improved landscape health

9. Increased wildlife habitat and specie diversity

10. Increased economic benefit from public land through services and goods.

11. Less erosion by wind and water

12. Decreased tension between residents and agency personnel.

13. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.

14. View-shed are maintained and in some cases enhanced.

15. Increased opportunities for non-consumptive uses of water resources.

Vegetation:

Millard County Desires:

1. All management decisions are based on reliable, objective, site-specific data analyzed in accordance with the Data Quality Act.
2. Eco-region, landscape level or remote sensing such as SWReGAP data is field verified and refined before it is incorporated into management actions, planning prescriptions, or site specific projects.
3. Land managers aggressively implement actions that are consistent with desired future conditions, findings, policies, goals and objectives outlined in the Millard County Resource Management Plan to restore, improve and maintain Millard County's vegetative resources.
4. Land managers optimize vegetative resources in Millard County by using native and/or non-native vegetation that best meets the desired objectives.
5. Native only prescriptions are limited to actions a) required by law, or b) where greater optimization and conservation of targeted resources occurs.

Social-economic Benefits

As these 5 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased water shed health and water yield
2. Increased water security through additional storage capacity.
3. Increased flood control capacity.
4. Increased social-economic sustainability.
5. Increased water quality and reduced sediment in rivers and streams
6. Increased soil health and productivity
7. Increased vegetation and vegetative diversity
8. Improved landscape health
9. Increased wildlife habitat and specie diversity

10. Increased economic benefit from public land through services and goods.
11. Less erosion by wind and water
12. Decreased tension between residents and agency personnel.
13. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.
14. View-shed are maintained and in some cases enhanced.
15. Increased opportunities for non-consumptive uses of water resources.

Forests and Woodlands:

Millard County desires:

1. Forest and woodland health is restored to the historical range of variability, including but not limited to composition, age, size, and density in accordance with ecologic site descriptions.
2. The use of timber harvesting is increased to restore resilience and resistance to fire, insects, and other disturbances.
3. Appraisals for timber sales are revised to reflect timber values in Millard County.
4. Insect and disease epidemics that could degrade forest and woodland health are prevented.
5. Silvicultural practices are used to increase the presence of large trees in Ponderosa Pine stands.
6. Mixed conifer forests are returned to earlier successional stages and have age and spatial diversity increased.
7. Prescribed fire is used judiciously after harvests, thinning, mechanical mastication, and other fuel reduction projects in mixed conifer forests to eliminate undesirable seedlings.
8. Additional forage resulting from improved forest health is allocated first to livestock to restore suspended or un-used AUMs, second to wildlife to meet objectives in place on January 1, 2015 and third equally between livestock and wildlife.
9 Spruce fir forests are restored and maintained in a healthy condition that resilient and resistant to fire and insect damage
10. Aspen are regenerated and rejuvenated.

11. The impact of elk on forests managed for aspen regeneration is controlled.

12. Each ranger district have a 150 year harvest plan.

13. Each ranger district have completed the required NEPA study two years before the planned harvest date.

14. No area larger than 50 acres have trees in a uniform stage of development.

15. Restoration after wildfires and prescribed burns shall provide for establishment of diverse development stages.

16. All restoration project and harvest projects be designed to develop and maintain an open canopy so that all future wildfires remain on the ground and not in the canopy.

17. Each ranger district have a watershed plan.

18. Each ranger district have a recreation plan that includes a wide range of recreational activities including but not limited to ATV, hiking, camping, and hunting.

19. Each ranger district have a transportation plan to provide access throughout the forest for recreation, grazing administration, public safety, wildfire management and control. The transportation plan provide for new logging roads and there continued use for multi-use activities such as those mentioned above.

20. Each ranger district have a grazing improvement plan for each grazing allotment.

Social-economic Benefits:

Forest restoration treatments cost approximately $200 per acre. If the post treatment average yield over the 20 years of livestock grazing after a 2 year recovery period is 367 pounds per acre. For each 100 acres treated 36,700 pounds of forage is produced annually. If livestock harvest 33.33% then 12,232 pounds is harvested by livestock. At 790 pounds per AUM 15.48 AUMs were harvested. At $56.95 per AUM, the average value per AUM for the past 5 years using Cedar City Livestock Auction November prices for cattle, yields $881.90 in revenue to ranchers and another $219.98 in economic activity in Millard County. Each increased AUM is worth $71.18 in economic output to Millard County.

As these 20 desired conditions are achieved the following social-economic benefits will be realized:

1. Restoration and enhancement of an important historic and cultural significant economic sector of Millard County.
2. Increased social-economic sustainability through a more diverse economy and more and better recreational opportunities.
3. Increased water shed health and water yield.
4. Increased water quality and reduced sediment in rivers and streams
5. Increased soil health and productivity
6. Increased vegetation and vegetative diversity
7. Improved landscape health
8. Increased wildlife habitat and specie diversity
9. Increased economic benefit from public land through services and goods.
10. Less erosion by water
11. Decreased tension between residents and agency personnel.
12. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.
13. View-shed are maintained and in some cases enhanced.

Sagebrush - Steppe/Semi-Desert:

Millard County desires:

1. Sagebrush-dominant vegetation communities are be restored to the historical range of variability including, but not limited to composition, age, size, and density in accordance with ecologic site descriptions.
2. Managers increase vegetative treatments in sagebrush ecosystems to restore the historic and natural range of variability.
3. Invading conifers, especially pinyon/juniper associations, are recognized as a great threat to a desired and healthy sagebrush ecosystem in Millard County; and treatments are implemented to restore sagebrush ecosystems to their historic range.
4. Loss of sagebrush ecosystems to invading conifers needs be recognized for its impact on water quality, wildlife, erosion and other ecological resources.

5. Suspended AUMs for livestock need to be restored commensurate with restoration of invading conifers to desirable sagebrush communities.

6. Water gain from restoration of invading conifers to sagebrush communities needs to be optimized for rangeland health and multiple-uses.

7. Additional water needs to be developed in current and restored sagebrush ecosystems to optimize multiple-use / sustained yield benefits.

8. Prescribed fire is used judiciously after thinning, mechanical mastication, and other treatment projects are completed.

9. Additional forage resulting from improved rangeland health is allocated first to livestock to restore suspended or un-used AUMs, second to wildlife to meet objectives on January 1, 2015 and third equally between livestock and wildlife.

10. As sagebrush communities are restored, sage-grouse related prescriptions need to be removed

Social-economic Benefits:

Rangeland restoration treatments for class 3 or phase 3 pinion-juniper cost approximately $200 per acre. If the post treatment average yield over the 20 years of livestock grazing after a 2 year recovery period is 367 pounds per acre. For each 100 acres treated 36,700 pounds of forage is produced annually. If livestock harvest 33.33% then 12,232 pounds is harvested by livestock. At 790 pounds per AUM 15.48 AUMs were harvested. At $56.97 per AUM, the average value per AUM for the past 5 years using Cedar City Livestock Auction November prices for cattle, yields $881.90 in annual revenue to ranchers and another $219.98 in economic activity in Millard County. Each increased AUM is worth $71.18 in annual economic output to Millard County.

As these 10 desired conditions are achieved the following social-economic benefits will be realized:

1. Preservation and enhancement of an important historic and cultural significant economic sector of Millard County.

1. Increased social-economic sustainability.

2. Increased water shed health and water yield.

3. Increased water quality and reduced sediment in rivers and streams

4. Increased soil health and productivity
5. Increased vegetation and vegetative diversity
6. Improved landscape health
7. Increased wildlife habitat and specie diversity
8. Increased economic benefit from public land through services and goods.
9. Less erosion by wind and water
10. Decreased tension between residents and agency personnel.
11. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.
12. View-sheds are maintained and in some cases enhanced.

Desert Shrub-Scrub:

Millard County desires:

1. Land mangers implement a full complement of integrated management techniques to restore appropriate disturbance regimes, desirable seral stages and to enhance rangeland health and the vigor of arid vegetative communities.
2. Undesirable annual grasses / cheatgrass is reduced by 0.5% annually until it can be eradicated.
3 Additional water resources are developed to diversify forage utilization by livestock and wildlife.
4. Intense early season grazing, herbicide treatments and biologic agents are aggressively employed in areas of undesirable annual grass expansion.
5. Additional encroachment by undesirable native species, invasive non-native vegetation, and noxious weeds is eliminated.
6. Other than cheatgrass, areas previously encroached by undesirable native species, invasive non-native vegetation, and noxious weeds are restored to properly functioning and desired future conditions at a rate of 2.5% based on a 10 year average.
7. Unless prohibited by law, naturalized or biologically equivalent non-native species be allowed/used when they optimizes vegetative cover or improve land health.
8. Managers enhance vegetative production and forage by livestock and wildlife to combat any effects of climate change.

9. Where native grasslands or non-native seedings have been lost to pinyon and juniper encroachment, cheatgrass/halogeton invasion or other undesirable vegetation, lands are restored to the native or treated condition. The desired future condition is that vegetative community (native or non-native) that optimizes rangeland health, ground cover and vegetative production.

10. Salt-desert shrub communities consist of native and / or naturalized and biologically equivalent non-native open salt-desert scrub vegetation with little to no cheatgrass or halogeton cover, and scattered pockets and patches of herbaceous material and forbs, primarily in the lower areas of the terrain.

11. Shrubland communities consist of dense-to-scattered shrubs and dense-to-open native and / or naturalized and biologically equivalent non-native grasses. Where surface disturbance occurs, areas are aggressively seeded with a seed mix optimized to reduce invasion of undesirable species and erosion.

12. Following fire, vegetative communities in this biome are seeded and revegetated, prior to the first rains supporting germination with a native and non-native mix designed to optimize short term and long term rangeland health.

Social-economic Benefits:

If the post treatment average yield over the 20 years of livestock grazing after a 2 year recovery period is 220 pounds per acre. For each 100 acres treated 22,000 pounds of forage is produced annually. If livestock harvest 33.33% then 12,232 pounds is harvested by livestock. At 790 pounds per AUM 9.28 AUMs were harvested. At $56.97 per AUM, the average value per AUM for the past 5 years using Cedar City Livestock Auction November prices for cattle, yields $528.68 in revenue to ranchers and another $131.87 in economic activity in Millard County. Each increased AUM is worth $71.18 in economic output to Millard County.

As these 12 desired conditions are achieved the following social-economic benefits will be realized:

1. Preservation and enhancement of an important historic and cultural significant economic sector of Millard County.

2. Increased social-economic sustainability.

3. Increased water shed health and water yield.

4. Increased water quality and reduced sediment in rivers and streams

5. Increased soil health and productivity

6. Increased vegetation and vegetative diversity
7. Improved landscape health
8. Increased wildlife habitat and specie diversity
9. Increased economic benefit from public land through services and goods.
10. Less erosion by wind and water
11. Decreased tension between residents and agency personnel.
12. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.
13. View-shed are maintained and in some cases enhanced.

Invasive Plants and Noxious Weeds:

The social economic impacts of Invasive Plants and Noxious Weeds are complex because although the past monetary costs to county governments, state agencies, and federal agencies of invasive plants and noxious weeds control are easily calculated, the non-monetary costs of lost production, water yield loss, and environmental degradation are not. The benefits of efforts to eliminate or control the spread of invasive plants and noxious weeds are also not easily calculated because the benefits take place over a much longer time period and over a large diverse population of beneficiaries that are difficult to identify each one and every one.

The management of social economic activities of 93% of the landmass is done by federal agencies. Therefore, how these agencies operate is a major determinate of invasive plants and noxious weeds control and management in the county. The other 7% fall under Utah Department Agriculture and Food and county government.

The costs and benefits of efforts to control and manage invasive plants and noxious weeds are not quantified in this report. Agencies and others are always concerned about the costs but have more difficulty identifying the benefits. This reports identifies some of the benefits that are expected to occur over time has Millard County's desired future conditions are met.

Millard County desires:

1. All noxious weed infestations on federal lands be identified and mapped prior to January 2020.

2. Land mangers significantly increase efforts to eradicate noxious weeds and replace invasive species with desirable historic plant communities.

3. All noxious weed infestations on state and federal lands be eradicated by January 2025.

4. Native and non-native invasive plants replaced with desirable pant communities, consistent with ecologic site descriptions. Class II and Class III pinyon/juniper woodlands are reduced by 2.5% based on a 10 year rolling average.

5. All herbicides and treatments authorized for use on private lands are available for use on federal lands with the same restrictions that apply to the general public.

6. The most efficient techniques possible are used to control cheatgrass, invasive conifers, rabbitbrush and noxious weeds.

7. Fire breaks are created in cheatgrass and other fire susceptible habitats to reduce the impacts of future wildfire.

8. Noxious weeds and invasive species, especially cheatgrass, rabbitbrush and conifers that are inconsistent with historic vegetative communities are recognized as a visible impact of man; and lands occupied by such species are designated as not a) natural, b) possessing wilderness characteristics, or c) suitable for management as wilderness, wilderness study areas or non-WSA lands with wilderness characteristics.

9. Conditions which promote infestation by noxious weeds and invasive species, such as bare ground, be minimized through active and adaptive management.

10. Federal agencies spend an amount on noxious weed control on their lands in proportion to the acres under their control as Millard County does for private lands under County control.

11. 40% ground cover is retained in areas of prescribed fire and 60% recruitment is achieved by the next rainy season.

12. Lands impacted by wildfire are reseeded with desirable native and/or non-native plant communities prior to infestation by noxious or invasive weeds.

Social-economic Benefits:

As these 12 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased water shed health and water yield
2. Increased flood control capacity.
3. Increased social-economic sustainability.
4. Increased water quality and reduced sediment in rivers and streams
5. Increased soil health and productivity
6. Increased vegetation and vegetative diversity
7. Improved landscape health
8. Increased wildlife habitat and specie diversity
9. Increased economic benefit from public land through services and goods.
10. Less erosion by wind and water
11. Decreased tension between residents and agency personnel.
12. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.
13. View-shed are maintained and in some cases enhanced.
14. Increased opportunities for non-consumptive uses of water resources.

Special Status Species:

The social economic impacts of Endangered Species Act with its associated Special Status Species are complex because the ESA set the value of an endangered species as infinite. As such, a species is to be saved at all cost in all locations. No single piece of legislation has had as great a negative impact on rural counties in the West. Environmental groups have used the ESA and the courts to stop commercial logging, new mining, and reduce livestock grazing throughout the western U.S. including Millard County.

The management of social economic activities of approximately 75% of the County landmass is done by federal agencies. Thus, these agencies operations are a major determinate of how much the enforcement of the ESA costs Millard County.

The costs and benefits of ESA and Special Status Species are not quantified in this report. Agencies and other parties are concerned about the costs expected for enforcing ESA. The benefits of saving a particular specie is more difficult to identify at the county-level. The costs of enforcing ESA are disproportionally carried by the local communities and counties while the benefits disproportionally go to distant beneficiaries. If the focus of the ESA was changed from population protection to habitat restoration and development, the long-run viability of species would be greatly improved. A specie prospers in a healthy habitat and declines in a deteriorating habitat. Habitat restoration and development shall be based on scientific research completed under similar geography and climate conditions and not on other dissimilar studies, untested theories, beliefs, or hopes. This reports identifies some of the benefits to the County from enforcing ESA in the least costly manner available, and within the policies and ordinances of Millard County. These expected benefits will occur over time as Millard County's desired future conditions are met.

The County desires that:

1. The need for future listings under the Endangered Species Act is precluded through the use of proactive habitat enhancements and sound resource management.
2. Currently listed special status species are recovered to the point they are delisted and their future as viable populations is secured.
3. The Utah Wildlife Action Plan is used as a principal guide for implementing species conservation strategies until Millard County develops individual conservation plans for the various species.
4. When developed, Millard County's species conservation plans replace the Utah Wildlife Action Plan as a principal guide for implementing species conservation strategies in Millard County.
5. Threats and prioritizations outlined the Utah Wildlife Action Plan be re-evaluated for site specific conditions in Millard County.
6. Restrictions on land use associated with special status species are removed from lands that do not contain a) permanent populations or b) high value habitat of the targeted species.
7. Conservation/recovery plans and habitat evaluation guides are developed for each special status species in Millard County.

8. Existing conservation recovery plans and critical, crucial and priority habitat designations are reviewed and revised to reflect only those lands suitable for species recovery and long term conservation.

9. Goshawk management plans for forested lands in Millard County are amended to prioritize; first, healthy forests that are resistant and resilient to fire; second, restoration of traditional timber harvests; and third, management of resources for goshawk conservation.

10. Any current goshawk amendment for national forests is discarded and replaced with an effective plan that meets Millard County's priorities for the beneficial use of land and natural resources and goshawk conservation.

11. Special status species conservation and recovery is managed in concert with traditional multiple-uses such as livestock grazing, timber harvest and energy development to promote the productive and enjoyable harmony between man and his environment.

12. Millard County communities thrive and are sustainable due to a healthy balance between man, development, natural resources, and land health.

13. Decisions regarding management of special status wildlife and plant species and their habitats are made based on the best available, site specific, biological and social scientific knowledge and information.

14. Critical habitats and recovery plans are not based on landscape or ecoregion level analysis but are based on local population and habitat conditions.

15. Scientifically accurate and scale-appropriate counts, data and maps concerning the location of special status species are available to assist with site-level analysis.

16. Spurious attempts to halt responsible land use through species listings, designation of critical habitats and other ESA and sensitive species-related strategies are precluded through active management emphasizing habitat vitality and vigor.

17. Millard County is recognized as a full and vital partner with state and federal agencies in the management of special status species and habitats.

18. The County's jurisdictional authority and expertise concerning land use, planning, zoning, site specific conditions, habitat, socio-economics, cultural impacts and other subjects is recognized, accepted and acknowledged by other levels governments.

19. A single special status species list and a single repository for conservation plans are developed for all governmental entities in Millard County.

Social-economic Benefits:

As these 19 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased sustainability of endangered and special status species.
2. Heathy sustainable habitats for endangered and special status species.
3. Increased vegetation and vegetative diversity.
4. Increased wildlife habitat and specie diversity
5. Increased water shed health and water yield
6. Increased flood control capacity.
7. Increased social-economic sustainability.
8. Increased water quality and reduced sediment in rivers and streams
9. Increased soil health and productivity
10. Improved landscape health
11. Increased economic benefit from public land through services and goods.
12. Less erosion by wind and water
13. Decreased tension between residents and agency personnel.
14. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.
15. View-shed are maintained and in some cases enhanced.

Fish And Wildlife:

In this section, the term "wildlife" includes fish, amphibians, birds, mammals, and reptiles unless otherwise noted.

Millard County contains a variety of aquatic and terrestrial habitats having biological and physical attributes that are important in the life cycles of many fish and wildlife species. Population levels are linked to a variety of factors, including vegetation quality and quantity; adequate space, shelter, and cover; water distribution; and regional weather patterns and trends such as prolonged drought. As water availability and distribution affects wildlife populations, water developments, whether constructed primarily for livestock or wildlife, can improve water availability in wildlife habitat.

Wildlife management in Utah is primarily done by UDWR. Through cooperative transplants, introduction of elk, pronghorn, bighorn sheep, chukar, turkey, and fish species have historically occurred on lands within or adjacent to Millard County. The UDWR formally coordinates these activities with the BLM, Forest Service and other public and private entities on a case-by-case basis. However, state and federal agencies often exclude local government in the decision making process.

Passive management in hopes of achieving some historic condition based on an arbitrary definition of "native" violates consistency, cooperation and coordination requirements of federal law, unless otherwise approved by the County Commission.

General Fish and Wildlife

Millard County desires:

1. State and federal land managers recognize Millard County's role in land management and planning and comply with consistency, cooperation and coordination requirements to the maximum extent allowed by law.
2. Definitions used by wildlife agencies for terms such as habitat, crucial, native, high value, important, etc. be refined to accurately and precisely reflect fish, wildlife and habitat conditions.
3. Land managers take a more aggressive and active approach to habitat treatments and manipulation. In broad terms Millard County desires seral stages to be 30% to 50% for early stage, 30% to 40% for mid stage, and no more than 25% late stage.
4. Habitat management plans employ a mix of desirable natives and biological equivalent non-natives to optimize land health and productivity.
5. Land managers actively manage for optimum desired conditions as established in the County's and State's resource management plans using appropriate native and non-native species.
6. Land managers and UDWR cooperate and coordinate with Millard County to designate priority management habitats for targeted species in Millard County.

Fish

7. State and federal agencies consult, cooperate and coordinate with Millard County to reduce or eliminate primary impacts that adversely affect streams, waterbodies, and the fisheries they support.

8. Land mangers concentrate efforts to improve streams, waterbodies and fisheries on optimizing desirable vegetative cover.

9. No new fish or species be introduced, reintroduced, transplanted or translocated in Millard County watercourses without coordination with Millard County and approval of the County Commission. This includes the translocation, introduction, or reintroduction of beaver.

10. A local water quality ordinance be developed under authority of the Clean Water Act to protect Millard County's streams, reservoirs and watercourses.

11. Existing aquatic invasive species, including Myxobolus cerebralis be eradicated from Millard County's watercourses, and new infestations be prevented from entering the County's waters.

12. Potential impacts to fisheries resulting from reasonably foreseeable actions such as mining, livestock grazing, wind energy development, geothermal exploration and facility development, pipeline and transmission line construction, urban development, and roadway and bridge construction be mitigated through the implementation of best management practices.

13. Land managers initiate actions to build additional resistance and resilience in Millard County's streams and riparian areas to prepare for the effects of potential climate change.

14. Prescribed fire is used as a last resort due to its potential to impact soil erosion, aquatic conditions and riparian values. Whenever prescribed burning is used and in the event of wildland fire, land managers must re-seed the affected area with an appropriate mix of native an non-natives capable of supporting multiple-use / sustained yield activities while optimizing land health and productivity.

Wildlife

15. Land managers implement aggressive, active and adaptive management to maximize land health while optimizing resource use in order to achieve harmony between man and his environment.

16. For each wildlife management unit not currently meeting objective, big game species be no more than 10% over objective by June 30, 2025. For each wildlife management unit

currently meeting objective, big game species remain between 90% and 102% of objective based on accurate annual herd counts.

17. No wildlife species be translocated, transplanted, introduced or re-introduced in Millard County without consistency, cooperation and coordination with Millard County and without the expressed concurrence of the Millard County Commission.

18. Mapping and habitat descriptions developed as part of landscape level and rapid ecoregion assessments be field verified, corrected and refined prior to implementation in Millard County.

19. Consistent with ecologic site descriptions, encroaching Class II and III pinyon / juniper woodlands be reduced by 2.5% based on a rolling 10 year average.

20. Land managers eliminate inconsistent, conflicting and self-defeating management actions and implement active, adaptive management that optimizes land health and harmony between man and his environment.

21. Land managers abandon passive management aimed at allowing nature to achieve some arbitrarily determined "native" condition while implementing active, adaptive management actions aimed at reaching desired conditions consistent with Millard County's Resource Management Plan.

22. UDWR and Millard County develop coordinated, site specific management plans for species and wildlife units in Millard County.

23. Land managers consider statistical significance and severity of impacts when surface disturbing activities are proposed in big game habitat. When impacts are statistically minimal or of low severity, surface disturbing impacts be allowed to proceed with the minimum reasonable best management practices. Where surface disturbing activities are determined to be statistically significant or severe in priority big game habitat, land managers employ avoid - minimize - mitigate protocols.

24. Land mangers emphasize developing and enhancing healthy, vigorous and abundant migratory bird habitat rather than restricting human development when considering breeding habitat, wintering habitat, and the travel corridors interconnecting them for migratory birds.

Predator Management:

25. Millard County's authority and responsibility to prevent the loss of life, property and wildlife values through appropriate predator control and this management plan be fully and completely recognized and respected.

26. Federal, state and local entities continue improving cooperation and coordination associated with predator control.

27. Ravens be significantly controlled in general habitat.

28. Predators in Millard County are controlled in a manner that supports resource use consistent with the County's Resource Management Plan.

29. No wolves are allowed to enter Millard County.

Social-economic Benefits:

Wildlife is an important cultural and historic resource of Millard County. The social-economic implications of wildlife are complex because of the interactions among the various wildlife species and their respective habitats. The relationships with human activities including mining, recreation and livestock also adds to the complexity. Millard County desires a balanced approach in these interactions and outcomes. Multiple-use of public lands is the key to balancing historic cultural uses and social-economic sustainability. Because the desired conditions will not be achieved in a short time period benefits are described without being monetarily quantified.

As these 29 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased sustainability of endangered and special status species.

2. Heathy sustainable habitats for endangered and special status species, other wildlife and livestock.

3. Increased vegetation and vegetative diversity.

4. Increased wildlife habitat and specie diversity

5. Increased water shed health and water yield

6. Increased flood control capacity.

7. Increased social-economic sustainability.

8. Increased water quality and reduced sediment in rivers and streams

9. Increased soil health and productivity

10. Improved landscape health

11. Increased economic benefit from public land through services and goods and non-consumptive uses.
12. Less erosion by wind and water
13. Decreased tension between residents and agency personnel.
14. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.
15. View-shed are maintained and in some cases enhanced.
16. Sustainable wildlife and livestock populations.
17. Increased public support for wildlife and habitat restoration activities.
18. Reduced tension among federal, state, and local governments through coordination of both planning and implementation.

Wilderness:

Wilderness, simply defined, is an undeveloped tract of land retaining its primeval character and influence without permanent improvements or human habitation. Wilderness areas are federally protected and managed to preserve their natural conditions, which generally appear to have been affected primarily by the forces of nature and the imprint of man's activity is substantially unnoticeable; have outstanding opportunities for solitude or primitive, unconfined recreation, be at a minimum 5,000 acres, where man is a visitor and does not remain. They may have supplemental values such as features of scientific interest, educational interest, scenic qualities, or historical value as well as ecological and geological values of interest.

Millard County recognizes the need for preservation of areas that exhibit true wilderness characteristics. However, managing public lands that have been historically used by man in an effort to develop wilderness areas is not in harmony with the Millard County Resource Management Plan, is not appropriate, and must cease.

Millard County desires:

1. Lands identified by the Millard County Commission as eligible and suitable for wilderness be so designated.
2. All other lands be released from management for wilderness character and be managed in accordance with the County's Land Use Plan.

3. The use and enjoyment of any future wilderness areas be expanded to the maximum extent allowed by law.

4. Federal agencies managing wilderness compensate the County for public services based on land area, visitation and use.

5. Only those lands identified and approved by the County for wilderness, primitive, semi-primitive non-motorized types of recreation be designated for such use. Non-wsa lands with wilderness characteristics need to be managed in accordance with Millard County's Land Use Plan.

6. All lands not designated as wilderness be developed to the maximum extent allowed by law for other multiple-uses, commodity production and socioeconomic growth.

Social-economic Benefits:

As these 6 desired conditions are achieved the following social-economic benefits will be realized:

1. Lands with true wilderness characteristics be designated wilderness following the procedures found in the wilderness act.

2. All other lands are managed with multiple-use principles.

3. Costs for public services supplied to support the wilderness areas be borne by all federal taxpayers not just Millard County taxpayers and residents.

4. Assured multiple-use opportunities on public lands in Millard County.

5. Increased economic sustainability in Millard County, its communities and families.

6. Reduced tension among federal, state, and local governments through coordination of both planning and implementation.

Wild and Scenic Rivers:

The Wild and Scenic Rivers Act of 1968 created the National Wild and Scenic Rivers System. The purpose of the Act was to preserve in their free-flowing conditions, certain selected rivers of the nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. The Act directed federal agencies to consider the potential for National Wild, Scenic, and Recreational

River areas in all planning for the use and development of water and related land resources. Rivers, or sections of rivers, so designated are preserved in their free-flowing condition and are not dammed or otherwise impeded. National wild and scenic designation essentially vetoes the licensing of new hydropower projects on or directly affecting the river. It also provides very strong protection against bank and channel alterations that adversely affect river values, protects riverfront public lands from oil, gas and mineral development, and creates a federal reserved water right to protect flow-dependent values.

The Wild and Scenic River Act identifies three classes of rivers:

a) Wild Rivers: Rivers or river sections free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

b) Scenic Rivers: Rivers or river sections free of impoundments with watersheds still largely primitive and shorelines largely undeveloped but accessible in places by roads.

c) Recreational Rivers: Rivers or river sections readily accessible by road or railroad that may have some development along their shorelines and that may have undergone some impoundment or diversion in the past.

Millard County desires:

1. Only river segments listed in the Millard County Wild and Scenic River Recommendation be included in the Wild, Scenic, and Recreational Rivers System subject to concurrence from affected agencies. At present, no river segments have been proposed by Millard County.
2. Evaluation of rivers and streams in Millard County for Wild and Scenic River Recommendation completed the process within the County and no further consideration or attempt by federal agencies be made to designate other stream channels without County participation and concurrence.
3. The effects of eliminating flow on Outstandingly Remarkable Values be analyzed as part of the eligibility criteria. If it is found that reduction or elimination of flow has no impact on the Outstandingly Remarkable value, then the value be declared not river related and dropped from consideration under the Wild and Scenic Rivers Act.

4. River segments be consistent with the National expectations for criteria for Wild and Scenic Rivers. Segments, which have a minimum volume of 40 cubic foot per second with a minimum flow area of 80 square feet or a minimum width of 40 feet for at least 360 days per calendar year, are found to meet National expectations.

5. Wild and Scenic River Recommendations comply with Millard County's criteria for Outstandingly Remarkable Values.

Social-economic Benefits:

As these 5 desired conditions are achieved, the following social-economic benefits will be realized:

1. Reduced tension among federal, state, and local governments through coordination of both planning and implementation.

2. Assured opportunities for development of water resources on all non-wild and scenic rivers and watersheds in Millard County.

Fire Ecology & Management:

Millard County desires:

1. Resources are managed to ensure fire resilience and resistance. Desired Fire Regime Condition Classes (FRCCs) in Millard County are: 30% to 50% FRCC1; 30% to 40% FRCC2; and less than 25% FRCC3.

2. Prescribed fire is used as part of an integrated approach, at the proper season, after mechanical, chemical, grazing, and vegetative harvesting techniques have been appropriately implemented.

3. An average of at least 8 million board feet are harvested annually for the next 20 years to restore woodlands to desirable Fire Regime Condition Classes.

4. Land managers implement aggressive vegetative treatments to restore vegetative resources to desirable Fire Regime Condition Classes.

5. Areas identified as FRCC3 and managed for potential climate change are reduced by at least 5% annually.

6. Land managers actions are consistent with the County's plans, policies and programs for fire ecology and management and impacted/related resource values.

7. Land managers prevent fire related impacts to WUI areas and other areas occupied by infrastructure.

8. Aggressive and effective emergency stabilization and rehabilitation programs are incorporated in all wildland and prescribed fire events.

Social-economic Benefits:

As these 8 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased sustainability of endangered and special status species.

2. Healthy sustainable habitats for endangered and special status species.

3. Increased vegetation and vegetative diversity.

4. Increased wildlife habitat and specie diversity

5. Increased water shed health and water yield

6. Increased flood control capacity.

7. Increased social-economic sustainability.

8. Increased water quality and reduced sediment in rivers and streams

9. Increased soil health and productivity

10. Improved landscape health

11. Increased economic benefit from public land through services and goods.

12. Less erosion by wind and water

13. Decreased tension between residents and agency personnel.

14. Fewer wildfires with their associated air quality, water quality, biologic, and erosion and other costs.

15. View-shed are maintained and in some cases enhanced.

Social-economic Cost of Wildfires and Prescribed Burns:

U.S. taxpayers typically experience 10 to 50 times more costs and losses to wildfire each year than just the $1 billion to $2 billion in suppression costs commonly reported by USFS

representatives and the media — that is, US taxpayers are losing $20 billion to $100 billion (or more) a year in such wildfire related damages as escalating fire management costs, human deaths, long-term public health problems, air pollution, soil degradation, wildlife habitat destruction, structural damage, water pollution, etc.

Agriculture:

Millard County Desires:

1. To the maximum extent allowed by law, federal actions are implemented in a way to ensure farmers and ranchers do not face undue or burdensome restrictions.

2. The social, custom, cultural and heritage value of local farms, ranches and agriculture are identified, analyzed and disclosed in NEPA analysis and land use plans developed by federal agencies.

3. Additional water is developed for agriculture and livestock interests on public and private land.

4. A permanent revenue source is established to fund ongoing water resource projects that support and expand agriculture; and additional water is developed to accommodate municipal growth without jeopardizing agricultural interests.

5. Federal and state agencies transfer suitable lands to private ownership for farming and ranching purposes.

6. The agricultural lifestyle of Millard County needs to be preserved and enhanced.

7. Federal and state agencies strictly adhere to the County's No Net Loss of Private Lands policy, especially regarding farms ranches and agricultural interests.

8. Federal and state agencies develop lands under their ownership for conservation of special status species, and, to the maximum extent allowed by law, relieve the burdens on private agricultural lands imposed by the Endangered Species Act.

9. The use and production of federal lands for livestock grazing is preserved and enhanced.

10. Wildlife impacts to agriculture and ranching interests are reduced.

11. Wildlife managers strictly adhere to population objectives established on or before January 1, 2015.

12. Federal agencies eradicate noxious weeds in their jurisdiction which are suspected of being the seed source for private lands.

13. Federal agencies restore lands occupied by invasive conifers and annual grasses to desired vegetative communities, consistent with ecologic site descriptions.

Social-economic Benefits:

As these 13 desired conditions are achieved, the following social-economic benefits will be realized:

1. Preservation and enhancement of an important historic culture, a significant economic sector of Millard County.
2. Increased social-economic sustainability.
3. Increased water shed health and water yield.
4. Increased water quality and reduced sediment in rivers and streams
5. Increased soil health and productivity
6. Increased vegetation and vegetative diversity
7. Improved landscape health
8. Increased wildlife habitat and specie diversity
9. Increased economic benefit from public land through services and goods.
10. Less erosion by wind and water
11. Decreased tension between residents and agency personnel.
12. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.
13. View-shed are maintained and in some cases enhanced.

Livestock Grazing:

Millard County Desires:

1. Land management agencies recognize state and local designation of the significant historic role of livestock grazing and its value as a cultural resource
2. Land managers recognize Millard County's Register of Cultural Resources and the County's Resource Management Plan and comply, to the maximum extent allowed by law, with Millard County's stated goals, plans, desires, and needs.
3. Federal agencies manage lands to maximize sustained yield, including optimization of available forage for livestock grazing.

4. Federal agencies restore forests and rangelands to a condition that supports the full number of permitted livestock and increases forage available for livestock grazing over time.

5. Prior to FY 2050 federal agencies enhance forests and rangelands to a condition that supports an additional 30% of forage over what is necessary to accommodate the full number of livestock and wildlife permitted at present.

6. Federal agencies restore Pinyon/Juniper stands to desired conditions, eliminate Tamarisk and Russian Olive, eradicate noxious weeds, and other unproductive species with vegetation that will optimize sustained yield and benefit to wildlife, livestock, recreation and other multiple-uses.

7. Water generated from Pinyon/Juniper, Tamarisk and Russian Olive removal be conserved, developed and enhanced to be used:

   a) for livestock on lands that are not designated as the focal point for visitors or that have water rights allocated to livestock;

   b) for recreation on lands designated as the focal point for visitors and that have water rights allocated to culinary/domestic uses;

   c) for livestock on lands designated by Millard County or the State of Utah where grazing is the highest and best use; and

   d) for multiple-use/sustained yield purposes in compliance with Utah State Water Law on lands that are undesignated.

8. New water be developed:

   a) for livestock and wildlife on lands that are not designated as the focal point for visitors or that have water rights allocated to livestock and wildlife;

   b) for recreation on lands designated as the focal point for visitors and that have water rights allocated to culinary/domestic uses;

   c) for livestock on lands designated by Millard County or the State of Utah where grazing is the highest and best use; and

   d) for multiple-use/sustained yield purposes in compliance with Utah State Water Law on lands that are undesignated.

9. The full number of permitted livestock be restored and expanded at the earliest possible time in a phased approach as these conditions are achieved.

10. Desired ecological site conditions identified by the Natural Resources Conservation Service be achieved.

Social-economic Benefits:

Rangeland restoration treatments for Class 3 or Phase 3 pinion-juniper cost approximately $200 per acre. If the post treatment average yield over the 20 years of livestock grazing after a 2 year recovery period is 367 pounds per acre, for each 100 acres treated, 36,700 pounds of forage is produced annually. If livestock harvest 33.33% then 12,232 pounds is harvested by livestock. At 790 pounds per AUM, 15.48 AUMs are harvested annually. At $56.97 per AUM, the average value per AUM for the past 5 years using Cedar City Livestock Auction November prices for cattle, yields $881.90 in revenue to ranchers and another $219.98 in economic activity in Millard County annually. Each increased AUM is worth $71.18 in annual economic output to Millard County.

As these 10 desired conditions are achieved the following social-economic benefits will be realized:

1. Preservation and enhancement of an important historic and cultural significant economic sector of Millard County.
2. Increased social-economic sustainability.
3. Increased water shed health and water yield.
4. Increased water quality and reduced sediment in rivers and streams
5. Increased soil health and productivity
6. Increased vegetation and vegetative diversity
7. Improved landscape health
8. Increased wildlife habitat and specie diversity
9. Increased economic benefit from public land through services and goods.
10. Less erosion by wind and water
11. Decreased tension between residents and agency personnel.
12. Fewer wildfires with their associated air quality, water quality, biologic, erosion, and other costs.
13. View-shed are maintained and in some cases enhanced.

Mining, Mineral and Fuel Resources:

Millard County Desires:

1. Mineral development to protect and expand the tax base and level of economic activity which will provide a good standard of living and will provide the necessary county services for its residents and visitors.

2. Section 40-8-2 of the Utah Code is recognized and complied with by federal agencies. The code states that mining industry is essential to the economic and physical well-being of the state. It is necessary to alter the earth's surface to extract minerals required by our society, but such mining should be done in a manner that minimizes undesirable effects and provides for reclamation of the surface when mining is completed.

3. Mineral and mining development is recognized and advanced as a valuable component of multiple-use management and community development.

4. Permitting is streamlined and that regulations should be consistent and coordinated between federal and state agencies and consistent with Millard County Resource Management Plan.

5. Mineral and mining resources are developed at an expanded rate.

6. Mineral and mining resources are optimized to support community sustainability and stability.

7. Millard County is involved in any reclamation initiative, mitigation enforcement or compensatory action taken against mineral development entities.

8. Section 63J-8-104 of the Utah Code is recognized and complied with by federal agencies. Millard County supports the state's position, which requires federal land management agencies achieve and maintain at the highest reasonably sustainable levels, a continuing yield of energy, hard rock, and nuclear resources in those subject lands with economically recoverable amounts of such resources.

9. Mineral and mining resources located outside Park Service lands and designated wilderness are available for development to the maximum extent allowed by law.

10. Additional material pits are developed near communities.

11. Additional material pits are developed for road maintenance, erosion control, stream stabilization and other activities that promote productive and enjoyable harmony between man and his environment.

12. WSA lands that are not suitable for Wilderness designation as identified in the County land use plan are released from further consideration and made available for mineral and mining extraction.

Social-economic Benefits:

As these 12 desired conditions are achieved the following social-economic benefits will be realized:

1. Preservation and enhancement of an important historic and cultural significant economic sector of Millard County.
2. Increased social-economic sustainability through addition of good paying jobs.
3. Increased water shed health and water yield through remediation and reclamation projects.
4. Increased water quality and reduced sediment in rivers and streams through operation planning, mitigation and reclamation.
5. Increased soil health and productivity through reclamation and vegetation projects
6. Increased vegetation and vegetative diversity through vegetation reclamation planning and implementation.
7. Improved landscape health through reclamation planning and implementation
8. Increased wildlife habitat and specie diversity
9. Increased economic benefit from public land through mineral and fuel services and goods.
10. Less erosion by wind and water through operation planning and implementation.
11. Decreased tension between residents and agency personnel.
12. View-shed are maintained and in some cases enhanced after reclamation.

Law Enforcement:

Millard County Desires

1. The authority of the County Sheriff as the primary law enforcement officer is recognized by all agencies.
2. Federal employees engaged in law enforcement activities work under the direction of the County Sheriff.

3. Agreements are executed with the County Sheriff prior to federal employees exercising any general police powers.

4. Federal employees do not exercise any general police powers prior to being deputized by the County Sheriff.

5. Federal agencies work in cooperation with and under the direction of the County Sheriff prior to exercising any general police powers.

6. Federal law enforcement activities be discontinued, and agencies execute appropriate agreements with the Millard County Sheriff to fulfill law enforcement functions.

Social-economic Benefits:

As these 6 desired conditions are achieved the following social-economic benefits will be realized:

1. Decreased tension among residents, local law officers and agency personnel.

2. Personal safety of agency personnel improved.

3. Improved communications between local law officers and agency personnel.

ENERGY:

Millard County desires:

1. Responsible nonrenewable energy development is optimized while renewable energy technology advances to the point of providing for the energy needs of the nation and Millard County.

2. Land managers permit, to the maximum extent allowed by law, energy development projects while implementing technologic advances, best management practices and reasonable reclamation which achieve a productive and enjoyable harmony between man and his environment.

3. Responsible development and production of energy resources are prioritized over conservation of lands for primitive recreation.

4. Energy extraction industries are developed, revitalized and expanded in Millard County.

5. Federal, state and local laws are modified to promote reasonable exploration, development and production of energy resources in Millard County.

6. Existing disturbances - including roads, paths, ways and trails identified in federal, state and local documents, plans and maps - are prioritized and reserved for potential energy exploration, development, production, and infrastructure location.

7. Federal agencies include at least one alternative identifying, analyzing and disclosing maximum energy development in all NEPA documents considering energy resources.

8. Land managers include a detailed socio-economic analysis, including at least one alternative considering maximum energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis clearly disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

Nonrenewable Energy Resources

Millard County desires:

9. Responsible nonrenewable energy development is optimized while renewable energy technology advances to the point of providing for the energy needs of the nation and Millard County.

10. Land managers promote, to the maximum extent allowed by law, nonrenewable energy development projects while implementing technologic advances, best management practices and reclamation which achieve a productive and enjoyable harmony between man and his environment.

11. The Grand Staircase-Escalante National Monument boundaries and management provisions are revised to permit reasonable development of nonrenewable energy resources.

12. Responsible development and production of nonrenewable energy resources are prioritized over conservation of lands for primitive recreation.

13. Nonrenewable energy extraction industries are developed, revitalized and expanded in Millard County except in National Parks and congressionally designated wilderness.

14. Federal, state and local laws are modified to promote reasonable exploration, development and production of nonrenewable energy resources in Millard County.

15. Existing disturbances - including roads, paths, ways, trails, chainings, seedings, and material pits identified in federal, state and local documents, plans and maps - are prioritized and reserved for potential nonrenewable energy exploration, development, production, and infrastructure location.

16. Federal agencies include at least one alternative identifying, analyzing and disclosing maximum nonrenewable energy development in all NEPA documents considering energy resources.

17. Land managers include a detailed socio-economic analysis; including at least one alternative, considering maximum non-renewable energy development, in NEPA documents where energy impacts are evaluated; and that the socio-economic analysis clearly disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

Renewable Energy Resources

Millard County desires:

18. Responsible renewable energy development advances, while non-renewable energy resource extraction is revitalized and optimized.

19. Land managers promote, to the maximum extent allowed by law, renewable energy development projects while implementing technologic advances, best management practices and reasonable reclamation.

20. Responsible development and production of renewable energy resources are prioritized over conservation of lands for primitive recreation and passive research.

21. Renewable energy extraction industries are developed and expanded in Millard County except in congressionally designated wilderness, unless renewable energy development is compatible with the purposes of those designations.

22. Federal, state and local laws are modified to promote reasonable exploration, development and production of renewable energy resources in Millard County.

23. Existing disturbances - including roads, paths, ways, trails, chainings, seedings, and material pits identified in federal, state and local documents, plans and maps - need to be avoided when potential renewable energy exploration, development, production, and infrastructure are located, unless the energy development is compatible with the existing disturbance.

24. Federal agencies include at least one alternative identifying, analyzing and disclosing maximum renewable energy development in all NEPA documents considering energy resources.

25. Land managers include a detailed socio-economic analysis, including at least one alternative considering maximum renewable energy development, in NEPA documents where energy impacts are evaluated; and that the socio-economic analysis clearly

disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

Social-economic Benefits:

As these 25 desired conditions are achieved the following social-economic benefits will be realized:

1. Increased social-economic sustainability through addition of good paying jobs.
2. Increased water shed health and water yield through remediation and reclamation projects.
3. Increased water quality and reduced sediment in rivers and streams through operation planning, mitigation and reclamation.
4. Increased soil health and productivity through reclamation and vegetation projects
5. Increased vegetation and vegetative diversity through vegetation reclamation planning and implementation.
6. Improved landscape health through reclamation planning and implementation
7. Increased economic benefit from public land through mineral and fuel services and goods.
8. Less erosion by wind and water through operation planning and implementation.
9. Decreased tension between residents and agency personnel.

1.8 POLICIES

Finding: The powers delegated by the Constitution to the federal government are few and defined. Those which remain in the State government are numerous and indefinite. Any federal supremacy is strictly limited to that defined by the U.S. Constitution and federal law. Federal authority is also limited to the minimum authorized under the appropriate jurisdiction (exclusive, concurrent, partial, or proprietorial).

Finding: Millard County's duly elected officers represent and speak for the local public to the maximum extent allowed by law.

Policy: It is Millard County's policy to maximize the health, safety, welfare, custom, culture, heritage and socio-economic well-being of the citizens and visitors of Millard County.

Policy: It is Millard County's policy to maximize influence over federal agencies through Consistency, Cooperation and Coordination.

Policy: It is Millard County's policy to demand consideration of cooperating agency status for all federal actions. Federal agencies are required to offer such status at the earliest possible time and before scoping. Millard County finds "earliest possible time" means as soon as an agency considers an action and includes data gathering, NFMA, pre-NEPA, and other preliminary stages.

Policy: Millard County finds meaningful involvement includes but is not limited to complete access to federal process consistent with interdisciplinary team membership; attendance at meetings; access to preliminary, draft and other documents; access to data, maps and reports; submission of information; and participation as a full partner in the agency environmental process.

Policy: Federal management plans and actions shall be consistent with state and local plans to the maximum extent allowed by law.

Policy: Although authorities among agencies may differ, all federal agencies shall perform discretionary functions consistent with Millard County's plan, program and policy to the maximum extent allowed by law.

Finding: All federal lands in Millard County affect the County's mission and responsibility for health, safety, welfare, custom, culture, heritage, and socio-economic well-being. Among other resources and factors; air, water, wildlife, pollen, soil, wildfire, smoke, seeds, cultural resources, and paleontological resources do not confine themselves only to federal lands. Activities that rely on resources including but not limited to hunting, rock hounding, fishing, recreation, mining, livestock grazing, sightseeing, and camping are intricately connected to public lands and impact the custom, culture and heritage of the County. Any action, activity, process or plan taken by federal land management agencies in Millard County impacts the county and is subject to coordination, cooperation and consistency requirements.

Policy: Cooperating Agency Status is authorized in federal statute for states, local governments and tribal governments. There is no known law requiring differentiation between the various levels of non-federal entities. Millard County demands treatment as a Cooperating Agency equal to other federal entities, states and tribal governments, until such time as it is prohibited by law.

Policy: Millard County asserts jurisdiction by law and expertise on all federal projects within the county and files a permanent request for Cooperating Agency Status. There may be circumstances where the County chooses not to participate as a cooperating agency. Such instances will be identified on a case by case basis.

1.9 LAW ENFORCEMENT

Current Setting

The U.S. Constitution and laws of Congress have never provided for a general grant of law enforcement authority to the federal government. The national government was purposefully created to be a government of "limited" powers; and federal law enforcement authority is limited to those situations where states have ceded exclusive jurisdiction to the United States.

State and county law enforcement jurisdiction is increasingly usurped by armed federal employees, acting under color of office. Generally, armed employees of the BLM, U.S. Forest Service, U.S. Fish and Wildlife Service and other federal land management agencies exercise only the power of citizen's arrest, unless otherwise authorized by the County Sheriff. The Sheriff is the chief law enforcement officer in the County and is charged with protecting the health, safety and welfare of the public. In Millard County, where the majority of the land is managed by federal agencies, the issue of jurisdiction becomes paramount to determine whether the federal or state government has police power and other governmental rights and responsibilities.

Both civil and criminal jurisdiction were vested by the Constitution in the States, including in instances where lands within the State's boundaries are managed by the Bureau of the Land Management (BLM), U.S. Forest Service (USFS), U.S. Fish and Wildlife Service (USFWS), etc. In 1956, the U.S. Attorney General issued a comprehensive two-volume report: *Jurisdiction Over Federal Areas Within the States: Report of the Interdepartmental Committee for the Study of Jurisdiction Over Federal Areas Within the States*. The Report was the first comprehensive federal study on the subject of jurisdiction on federally managed or owned lands and included an inventory of all federal areas to determine what type of legislative jurisdiction (exclusive, concurrent, partial, or proprietorial) applied to those lands. The vast majority of federal lands in Millard County are in proprietorial ownership.

Proprietorial interest only is applied to those instances wherein a federal agency has acquired some right or title to an area in a State but has not obtained any measure of the State's authority over the area. In applying this definition recognition should be given to the fact that the United States, by virtue of its functions and authority under various provisions of the Constitution, has many powers and immunities not possessed by ordinary landholders with respect to areas in which it acquires an interest, and of the further fact that all its properties and functions are held or performed in a governmental rather than a proprietary capacity. Where a federal agency has no legislative jurisdiction over its land, it holds such land in a proprietorial interest only and has the same rights as does any other landowner. In addition, however, there exists a federal right to perform the limited functions or enumerated powers delegated to it by the Constitution.

Congress has consistently and expressly reserved civil and criminal jurisdiction to the states. In fact, every federal land law passed by Congress contains protections for both preexisting property rights and the states' civil and criminal jurisdiction. Authority rests with the County Sheriff unless delegated to federal officers.

Need for Management Change

1) All federal agencies need to recognize the authority of the County Sheriff as the Chief Law Enforcement Officer in the County.

2) Federal employees engaged in law enforcement activities need to work under the direction of the County Sheriff.

3) Federal agencies need to execute an agreement with the County Sheriff and be deputized prior to exercising general police powers.

4) Federal agencies need to work cooperatively with the County Sheriff in all law enforcement activities.

5) Federal law enforcement activities need to be discontinued, and agencies need to execute appropriate agreements with the Millard County Sheriff to fulfill law enforcement functions.

Desired Future Conditions

a) The authority of the County Sheriff as the primary law enforcement officer is recognized by all agencies.

b) Federal employees engaged in law enforcement activities work under the direction of the County Sheriff.

c) Agreements are executed with the County Sheriff prior to federal employees exercising any general police powers.

d) Federal employees do not exercise any general police powers prior to being deputized by the County Sheriff.

e) Federal agencies work in cooperation with and under the direction of the County Sheriff prior to exercising any general police powers.

f) Federal law enforcement activities need to be discontinued, and agencies need to execute appropriate agreements with the Millard County Sheriff to fulfill law enforcement functions.

Findings, Policies, Goals and Objectives

Finding & Policy: The County Sheriff is the primary law enforcement officer in Millard County and exercises control over general police powers and health, safety and welfare.

Policy, Goal & Objective: The health, safety, welfare, peace and prosperity of Millard County are promoted only when the authority of the County Sheriff as the primary law enforcement officer is recognized and respected.

Policy, Goal & Objective: Federal agencies and employees shall work in cooperation with and under the direction of the County Sheriff in activities involving any general police power.

Finding & Policy: The Millard County Sheriff is the primary law enforcement officer in the County, and general police powers shall be conducted under his/her direction.

Finding & Policy: Federal employees are prohibited from exercising general police powers except where a) lands have been ceded to the exclusive jurisdiction of the United States by appropriate legislative action; or b) specifically authorized by the County Sheriff.

Policy: Agreements with the County Sheriff shall be executed prior to federal employees exercising any general police powers. Where deemed appropriate and at his/her sole discretion, the County Sheriff may deputize federal employees.

Finding, Policy, Goal & Objective: The current system for law enforcement on federal lands in Millard County is largely inefficient and threatens the health, safety and welfare of the public. Unless authorized otherwise by the Millard County Sheriff, all federal agencies shall discontinue law enforcement activities in Millard County and shall develop cooperative agreements with the County Sheriff for the execution of law enforcement and general police power activities prior to the close of fiscal year 2020.

CHAPTER 2

Resource Management

2.1 AUTHORITIES

An exhaustive Authorities Section has not been completed. The plan complies with existing federal, state, and local law as described in Section 1.4, Section 1.5 and elsewhere in this plan. It is intended that an expanded Authorities Section will be completed, subject to public comment, and adopted at some point in the future.

This Land Use Plan, as amended, is the primary comprehensive planning document for resources in Millard County, Utah. Its purpose is to ensure there is a unifying set of policies for proper coordination and consistency between all agencies that have regulatory responsibility within the county, the industries and business utilizing the resources within the county, and all landowners including private, county, state, tribal, and federal. This Resource Management Plan (RMP) is the only planning effort that crosses all agency boundaries, takes into account all interests and sets forth policy that allows each entity to fulfill their necessary purpose. The Millard County Commission is responsible for governing the County in the best interest of all citizens, described by state statutes as protecting their "health, safety, morals and general welfare," as well as the County's economic base and the natural environment. This RMP sets forth management policies that support multiple-use and sustained yield of the natural resources in Millard County to protect the social, cultural and economic values while limiting adverse effects to the natural environment. It establishes a baseline for encouraging a productive and enjoyable harmony between man and his environment. It is expected that all entities, whether private or government, operating within Millard County will be consistent with the policies within this plan as they carry out their responsibilities.

This RMP shall also serve as the comprehensive planning document for the natural resources in Millard County as it relates to the management of federal and state lands. The County Commission has the unique authority to require federal and state agencies to coordinate their plans and policies with the County, therefore ensuring that all entities with responsibilities for habitat, species and other natural resources as well as for public access to the resources, are working together efficiently and effectively and not pursuing counter-productive measures.

While recognizing that each agency has its own planning processes, federal agencies are required to not only consider the County's policies, but work to resolve conflicts and make federal plans

consistent with the County's policies (43 USC 1712). Federal statues require that the County's policies are integrated into the federal planning process on federal lands within the County's borders. The State of Utah has given Millard County planning authority over lands within the County's borders, ensuring the coordination of the County's policies with state agencies as well.

Implementation of this plan will be conducted through a formal coordination process with all agencies that have jurisdiction and/or responsibility for natural resources within the County. This RMP will serve as the unifying and primary planning document.

Numerous federal statutes require federal agencies to coordinate their planning and management activities with Millard County. These include the Federal Land Policy and Management Act, the National Forest Management Act, and the National Environmental Policy Act, which guide the management of federal lands and directly impact the County's interests. Therefore, it is essential that federal and state agencies coordinate continually with Millard County to ensure consistency of policies.

Coordination recognizes that the responsibilities of local governments are "equal, not subordinate" to the duties of federal and state governments, and that the needs of the local government must be incorporated into the federal and state planning processes. Coordination is designed to resolve conflicts that may exist between local, state and federal objectives early in the process and throughout the implementation of policies. The County recognizes that federal law may supersede state and local law, and that it is federal law that requires agencies to coordinate and reach consistency with Millard County's plans and policies.

Millard County asserts the minimum requirement for this government-to-government coordination requires federal agencies to:

1. Keep apprised of state, local and tribal land use plans;

2. Assure that consideration is given to local plans when developing a federal plan, policy or management action;

3. Provide early notification (prior to public notice / scoping) to local government of development of any plan, policy or action;

4. Provide opportunity for meaningful input by local government into development of the plan, policy or action; and

5. Make all practical effort to resolve conflicts between federal and local policy, and reach consistency.

Utah law authorizes the County to engage in coordination with federal agencies. Utah State Statute also provides for the development of county-level plans under Title 17-27a-401. In 2015,

the Utah Legislature amended Title 17-27a-401 requiring that county general plans include a "resource management plan" to provide a basis for communicating and coordinating with the federal government on land and resource management issues. In its plan, Millard County has focused not only on the statutory requirements, but on issues identified as being important to the health, safety, welfare, custom, culture, heritage, socio-economic vitality, and community stability of Millard County. These issues are addressed in the Plan through "Findings," "Policies," "Objectives," "Action/Implementation Steps," and other directives.

The Board of Commissioners will work to establish a coordination process with all federal and state agencies to ensure conflicts are resolved early in planning processes and consistency is achieved with the Millard County Land Use Plan as amended by the RMP.

During the preparation of Environmental Studies under the National Environmental Policy Act, the County may participate in the preparation of the analysis as a "Cooperating Agency." Federal law allows Millard County to be represented in federal land planning decisions as a cooperating agency with special expertise and/or jurisdiction. Millard County will participate in the federal planning processes as a cooperating agency on a case by case basis. However, such participation does not replace or end the required federal coordination. Decision making processes and deliberation required to resolve conflicts between federal and county plans and to reach consistency with these plans will be conducted in open public meetings as required by Utah law.

The County may also participate in the collaborative processes only to the extent the process strictly complies with requirements of the Federal Advisory Committee Act (FACA). The County will consider participating in a collaborative process on a case-by-case basis, but will do so only with the understanding that such participation does not preclude the County from participating as a cooperating agency. Additionally participation in a collaborative process does not limit, replace or end government-to-government coordination with the federal agency. The County had statutory planning and fiduciary responsibilities to the citizens of the county that must be protected and not placed on equal footing with other non-government agencies or special interests. In the event the County does participate in a collaboration process, it does so with the understanding that it will continue coordination with the federal agency on the same project for the purpose of ensuring the project is consistent with the Millard County Land Use Plan and RMP.

2.2 AIR QUALITY

(Reserved)

2.3 GEOLOGY, TOPOGRAPHY, AND CLIMATE

Current Setting

INTRODUCTION

Geology, topography and climate are natural conditions that exist in an area and influence the relationship between man and his environment. Unlike many other natural resources, geology, topography and climate are established over long periods of time and are not easily influenced by man. Geology, topography and climate play a significant role in how land is used and resources that may be available, but these features are generally beyond the immediate control of man and there is little opportunity for large-scale, significant change in Millard County.

GEOLOGY

Geology is the study of the earth's materials, the structure of those materials and the processes acting upon them. Geologic features occur below the earth's surface soils and determine the availability of minerals, potential mining activity, the presence of oil or natural gas, and the earth's basic structural components for a specific area. Geologic features can be altered in the short-term by volcanic eruptions, earthquakes and landsides. But, generally, geology in Millard County has been developed over eons of time and remains stable.

Numerous geologic studies have been conducted in Millard County with evaluations beginning as early as the late 1800s. Information regarding Millard County's geology is substantial and is too detailed to be exhaustively covered in this Resource Management Plan. Descriptions contained herein are primarily general. Additional detailed information may be obtained by contacting the Utah Geological survey. Much information has been gleaned from Hintze's and Davis' *Geology of Millard County, Utah* published in 2003 and from recent NRCS soil surveys.

Among other things, Millard County is a classic geologic area that contains a well-exposed geologic column that is significantly more prominent than all but a few places in the world and documents the area's history over geologic time. Quoting generously from the NRCS Soil Survey of Millard County, Eastern Part by Victor Parslow:

Millard County is located at the eastern edge of the Basin and Range physiographic province. This province consists of uplifted, block fault mountains surrounded by alluvium— filled valleys. Most of the County is below the highest shoreline of prehistoric Lake Bonneville.

The Valley regions are filled with Holocene sediment from rivers, lake deposits, alluvial fans, and, in some areas, windblown dunes. The alluvial fans are terraced, which indicates fluctuations in the water level of ancient Lake Bonneville.

The Canyon Mountains in Fishlake National Forest, bisect the northern part of the county. These mountains are composed of weakly cemented conglomerate of pebbles cobbles interbedded with brick – red sandstone in shale and overlain by yellowish – purple limestone. Weathering and erosion in these mountains provide a significant portion of the course sediment transported by

the drainage ways cutting across the northeast part of the county. The foothills of the Canyon Mountains have outcroppings of quartzite sandstone and limestone.

The Pahvant Mountains are adjacent to the southeastern part of the County. These mountains have a major thrust fault in which all the rock from the west have moved eastward across and into younger rocks. Fault relationships are evident in this area.

At the foot of the Pahvant and Canyon Mountains, the soils formed dominantly on dissected alluvial fans consisting of colluvial and alluvial deposits derived from conglomerate, sandstone, quartzite, and limestone. Soils associated with quartzite alluvium and colluvium typically are more resistant to weathering. Because of their coarse texture, these soils are important as groundwater recharge areas for the region.

In the Pahvant Valley, Round Valley, Scipio Valley, and Oak City areas, alluvial fans and sand dunes make up most of the nearly level to moderately steep landscape. Sediment from ancient Lake Bonneville formed the lake plains, and fluctuations in the water level of Lake Bonneville formed the lake terraces. The active dunes and old, stabilized dunes between Flowell and Lynndyl were derived dominantly from Lake Bonneville deposits to the South – Southwest. The alluvial fans are subject to a high rate of runoff in spring which result in deposition of cobbles, gravel and sand in channels and on the banks of channels. Fine sediment is suspended and carried downstream and deposit on flat low-lying floodplains.

The stream terraces and floodplains are dominantly made up of sediment associated with the Sevier River. Holocene flows (11,000 years ago to present) had deposited unconsolidated gravel sand and silt over old geologic units. The soils in these areas are highly variable and mixed, and they are subject to change annually as a result of flooding.

In the Western part of the county, the landscape is made up of sediment associated with Lake Bonneville. The sediment consists of interlayered white, light gray, brown and tan clay, silt, sand, marl, and gravel. The marl is composed of calcareous ostracod shells with a matrix of clay. Black basaltic ash is in the marl near Leamington.

The steep landscape in the southwestern part of the County is made up of Lake Bonneville deposits associated with basalt lava flows. These lava flows are more resistant to erosion than surrounding lake sediment. The soils formed in colluvium deposited during slow downward movement of material on the basalt slopes. Temperature changes throughout the year contribute to geologic weathering of the igneous rock. The rock expands and contracts which causes it to crack and eventually break down. Hot springs are in this area.

The northern part of the survey area is drained by the Sevier River and by intermittent drainage ways that extend only a short distance into the late terraces after leaving the alluvial fans. Oak and Fool Creeks are examples. The Pahvant Valley has no drainage outlet. Wild Goose, Pioneer, Chalk, Meadow, and Corn Creeks flow into sloughs or playas at the lowest points in the Valley.

In their book *Geology of Millard County, Utah*, published as Bulletin 133 Utah State Geological Survey, 2003 Lehi F. Hintze and Fitzhugh D. Davis state:

Millard County is unique among Utah's counties in containing an exceptionally complete billion year record of how it came to look as does today, as interpreted from the bedrock exposed in its mountain ranges in the soils of its desert basins.

Until about 200 million years ago the area of present-day Millard County was part of a continental shelf upon which a stack of fossil bearing, shallow marine sediments more than 6 miles thick slowly accumulated. Then, in Jurassic time, tectonic forces in western Nevada, along the juncture of the North American continental plate and plates of the Pacific Ocean basin, initiated a series geologic events that have produced Millard County's present landscape. Since this time the area was successively: covered by Jurassic standings; locally intruded by Jurassic granite; folded and faulted into now vanished Cretaceous mountain belt; covered by lava and ash from Eocene and Oligocene eruptive centers in Eastern Nevada and Western Utah; cut by faults beginning 17 million years ago that created present valleys and mountains; and, finally, 20,000 to 12,500 years ago, largely covered by freshwater Lake Bonneville's which left its legacy of shorelines as its remnant, Sevier Lake. The level of Lake Bonneville fell below the threshold of the "Old River Bed" (located in Juab County between the Keg and Simpson Mountains) about one about 12,500 years ago. After that the lake waters in Millard County receded within the Sevier Desert basin, which only intermittently supported a body of water in Sevier Lake, because of decreased rainfall and the warmer climatic conditions at the end of the Ice Age.

Additional information on specific minerals is included in Section 3.6 Minerals and Mining.

TOPOGRAPHY

Topography is the condition of the shapes and features that make up the earth's surface and includes mountains, hills, valleys, rivers, canyons and other vertical deformations. Generally, Millard County is located on the eastern edge of the Basin & Range province. The County contains large mountain ranges and hills interspersed by basins and desert flatlands. In places, steeply dipping folds are tilted and warped by intrusions or are cut by significant faults.

Millard County's location in the Basin and Range topographic province is a brief description for the alternating valleys and north-trending mountain ranges that typified the topography between central Utah and the Sierra Nevada. The term basin describes a subsiding area in the earth's crust in which sediments have accumulated form streams draining adjacent highlands. Basins are of interest, not only because the relatively flat, soil covered surfaces may be farmable, but also because groundwater may be present in porous and permeable portion of their basin filling deposits. While other economic resources might also lie concealed in the basins.

Basins in Millard County are filled with sedimentary and volcanic deposits that are all geologically quite young, compared to the older rocks upon which they lie. Prior to block faulting older bedrock had been folded and thrust faulted, creating an uneven topography that is hidden below the surface materials of the basins. Some basins subsided more than others and

accumulated thicker deposits. Surface observations in Millard County's western deserts and valleys cannot determine the subsurface strata.

Approximately 30 valleys, deserts and mountain ranges are located in Millard County. Detailed descriptions of each area are available in Hintze's and Davis' *Geology of Millard County Utah*, Bulletin 133, Utah Geological Survey, 2003. The Pahvant and Canyon Mountains form the County's eastern edge. From these mountains the Sevier and Black Rock deserts occupy approximately one-third (1/3) of Millard County and extend the County's entire north – south length. The Cricket Mountains are located in south-central Millard County and form the eastern edge of the valley that contains Sevier Lake. Southwest of Sevier Lake Valley the Wah Wah Mountains extend north until they split into Barn Hills, the House Range Mountains, and the Confusion Range (with the latter two extending beyond the County's northern boundary). The northwestern portion of Millard County is occupied by the Snake Valley and the southwestern portion contains Pine Valley, Tunnel Springs Mountains, Antelope Valley, Mountain Home Range, and Burbank Hills. As mentioned above, all the mountain ranges run in a north-south trend.

CLIMATE

Climate is the pattern of weather variations in an area and includes temperature, humidity, precipitation, wind, snowfall and elements. The climate of Millard County varies significantly across its area. Generally the County's climate can be described as a high latitude steppe with some of the higher elevations classified as mountain climates. Additionally, near desert conditions exist at lower elevations in the western portion of the County near the Nevada state line. Climate, including temperature and precipitation, is significantly influenced by elevation. Variations are also influenced by topographic settings such as valleys, plateaus or mountains.

The steppe and desert environments are subject to great variations, making use of typical descriptions unreliable. Monthly average rainfall can range from zero (0) to six (6) inches, but actual precipitation is so sporadic that a significant portion of the annual rainfall can occur in a single month. Temperatures also vary. The County can experience an unanticipated frost in the summer or unseasonably warm temperatures in the winter. Daily and annual temperature ranges are significant throughout most of the County.

A steppe climate indicates evapotranspiration exceeds precipitation. High altitudes in the County usually have two peak precipitation periods. The less well-defined period occurs during winter months and is a result of winter precipitation usually in the form of snow. A second precipitation period occurs in late summer when short-lived and often severe thunderstorms produce heavy storms that often result in flash flooding.

Lower elevations have similar climatological patterns with smaller amounts of winter precipitation and higher magnitude summer thundershowers. In early fall, temperatures moderate and storm events become less frequent. The driest period of the year is usually spring. Winter snow is of great importance and provides valuable moisture during the spring thaws.

Higher elevations, especially in eastern Millard County, may experience more than 30 inches of snow per year.

The climate of Millard County is controlled by the same general circulation patterns at the rest of Utah, but is modified by local topography. The climate is temperate, and the moisture regime ranges from arid at the lower elevations in the western part of the County to sub-humid in the foothills of the Pahvant and Canyon Mountains and in Round Valley, in the eastern part of the area

Precipitation in October through April falls mainly as snow. This precipitation is primarily from Pacific storm fronts and occasional low fronts late in the fall and early in the spring. In winter, the precipitation ranges from less than five (5) inches in the western part of the County to eleven (11) inches near Fillmore and the eastern mountains. During the growing season, precipitation ranges from less than four (4) inches in the western desert to about five (5) inches in the central and eastern areas. This precipitation is a result of low fronts late in the spring and early in the fall and thunderstorms in the summer, which consist primarily of moisture from the Gulf of Mexico.

The average air temperature and growing seasons are affected by changes in elevation and topography. Strong inversions are caused by cold air flowing down the mountainside and collecting at the bottom of the valley. The warmest temperatures and the longest growing seasons are near the top of the inversion. Fillmore, Oak City, and Kanosh, which are on terraces at elevations of 5,020 to 5,160 feet, have the mean annual air temperature of 51° to 52° F and a frost-free season of 140 to 150 days. Deseret, which is a few miles west of the foothills on a valley bottom at an elevation of 4,585 feet, has a mean annual temperature of 49° and a frost free season of 117 days. Scipio which is on a valley bottom and at an elevation of 5,300 feet has a mean annual air temperature of 48° and a frost free season of only 102 days.

CLIMATE CHANGE

The earth's climate has changed throughout its history, and some scientists believe there have been as many as seven cycles of glacial advance and retreat with the last ice age ending abruptly approximately 7,000 years ago. Data produced on the Environmental Protection Agency's website for kids (October 9, 2016, https://www3.epa.gov/climatechange/kids/basics/past.html) indicates nearly constant fluctuations in temperature and carbon dioxide concentrations for thousands of years.

Millard County is a large, remote, sparsely populated area with extremely limited industry and vast amounts of federally controlled, undeveloped land. Recent estimates indicate Millard County is one of the few places in the nation with a population density less than 2 persons per square mile. The earth's population is in excess of 500,000 times greater than the County's population. Millard County's contribution to any global climate change that may exist is extremely limited and is most significantly influenced by:

a) biogenic emissions from vegetation on federal lands, and
b) emissions from forest/rangeland and prescribed fire.

Currently, climate change is often used as an excuse to prohibit traditional activities that are deemed beneficial to the health, welfare, custom, culture and heritage of the County. Unfortunately, federal agencies do not have verifiable data quantifying the impact of proposed projects on site specific or cumulative climate change.

Three major catastrophic fires have ravaged Millard County in the past ten (10) years. The largest being the Milford Flat Fire, which burned over three hundred fifty thousand (350,000) acres in Millard and Beaver Counties. The majority of the burn occurred in Millard County. The two other fires occurred in the Canyon Range. These three fires cost approximately $20 Million to combat. These three fires (and two lesser fires) left watersheds and valleys open to wind and water erosion. Rehabilitation has taken over six (6) years in each area. Flash flooding, wind erosion, and reduced vegetation contribute to increased particulate matter in the atmosphere, negatively affecting air quality as well as the livestock industry in Millard County.

Recently, the Brian Head Fire of 2017 became the most significant contributing event to climate change in Millard County. Although the majority of the forest fire occurred in Iron County, significant amounts of CO_2 were released into the atmosphere, and conditions which are purported to exacerbate local climate change where expanded well beyond any impact the residents of the County have contributed during the last several decades.

Need for Management Change

1) The characteristics of geology, topography and climate do not lend themselves to management changes that can be effective within the limits of normal planning processes. Extraction activities associated with existing geology are detailed in the minerals and mining section. Topographic changes associated with site specific projects are minimal when considering overall topography in the county. Climate is not controlled by management decisions. Management changes for geology, topography, and climate are included in resource/activity specific direction included in other sections of this Resource Management Plan.

2) Quantifiable data regarding climate change in Millard County is virtually non-existent. Agencies fail to provide statistical or objective data documenting climate change impacts on site specific and cumulative bases. Land managers need to develop, document and display statistically accurate, quantifiable data prior to implementing actions associated with climate change.

3) Until the time Millard County develops a local climate change ordinance, land management agencies need to coordinate all climate change decisions with the County and comply with local policies to the maximum extent allowed by law.

4) Land managers need to quantify impacts of prescribed and forest/rangeland fire on climate change and accurately quantify impacts of their contributions to climate change.

Desired Future Conditions
Millard County Desires:

a) Geology, topography and climate of the County are managed following multiple-use / sustained yield principles to benefit man while supporting the health, safety, welfare, custom, culture, heritage, and community stability of Millard County.

b) Geology is managed such that mining, mineral and energy resources located in Millard County are available for the benefit and use of man.

c) Geologic resources are developed to the maximum extent allowed by law taking into account appropriate mitigation and reclamation, consistent with the Millard County Resource Management Plan.

d) Development of geologic mining, mineral and energy resources take precedence over preservation of scenic, recreation and wilderness values.

e) Prior to restricting development of geologic mining, mineral and energy resources, land managers Coordinate with Millard County to optimize development and land health.

f) Land managers recognize topography is a result of other ecologic conditions and not a resource in and of itself.

g) Changes in topography associated with surface disturbing activities are mitigated through appropriate best management practices including but not limited to sloping, contouring, terracing and revegetating.

h) Land mangers recognize climate is beyond the control of man and changes are best managed through application of appropriate adaptive management principles.

i) Projects in Millard County evaluated for impacts associated with local climate change be objectively, scientifically and statistically analyzed to quantify the respective project's contribution to alleged county, state, national and worldwide climate change.

j) Projects which contribute less than one-tenth of one-percent (0.1%) of the statewide contribution, one-hundredth of one-percent (0.01%) of the national contribution, or one-thousandth of one-percent (0.001%) of the worldwide contribution to climate change be declared de minimus and of no significant impact.

k) Projects with impacts to climate change that cannot be accurately, scientifically and statistically quantified on a state, national and worldwide basis be declared to be of no significant impact.

l) Cumulative climate change analysis for projects in Millard County include all contributors to climate change on a statewide, national and worldwide basis.

m) Land managers identify, analyze and disclose agency contributions to climate change as part of evaluations considering climate change.

Findings, Policies, Goal & Objectives

Finding: Geology, topography and climate are ecologic conditions that in almost all cases are beyond the control of man.

Finding: Quantifiable data regarding local climate change in Millard County is virtually non-existent. Agencies have failed to provide statistical or objective data documenting climate change impacts on site specific and cumulative bases.

Policy: Land managers shall develop, document and display statistically accurate, quantifiable data, including their own agency's contribution, prior to implementing actions associated with climate change.

Finding: Millard County is authorized to develop a local Climate Change Ordinance under its authority for air quality under the Clean Air Act.

Policy: Until a Millard County Climate Change Ordinance is implemented, land management agencies shall coordinate all climate change decisions with the County and comply with local policies to the maximum extent allowed by law.

Finding: Geologic mining, mineral and energy resources are finite, distinct commodities that are found in limited areas.

Policy: Geologic mining, mineral and energy commodities should be developed to the maximum extent allowed by law, incorporating appropriate mitigation and reclamation provisions.

Policy: Geology, topography and climate of the County shall be managed following multiple-use / sustained yield principles to benefit man while supporting the health, safety, welfare, custom, culture, heritage, and community stability of Millard County.

Policy: Geology shall be managed such that mining, mineral and energy resources located in Millard County are available for the benefit and use of man.

Policy: Responsible development of geologic mining, mineral and energy resources shall take precedence over preservation of scenic, recreation and wilderness values.

Policy: Prior to restricting development of geologic mining, mineral and energy resources, land managers shall Coordinate with Millard County to optimize development while protecting land health.

Policy: Changes in topography associated with surface disturbing activities shall be mitigated through appropriate best management practices including but not limited to sloping, contouring, terracing and revegetating.

Finding: Climate is beyond the control of man, and changes are best managed through application of appropriate adaptive management principles.

Policy: Projects in Millard County evaluated for impacts associated with climate change shall be objectively, scientifically and statistically analyzed to quantify the respective project's contribution to county, state, national and worldwide climate change.

Policy: Projects which contribute less than one-tenth of one-percent (0.1%) of the statewide contribution, one-hundredth of one-percent (0.01%) of the national contribution, or one-thousandth of one-percent (0.001%) of the worldwide contribution to climate change are de minimus and shall be found to have no significant impact, unless otherwise approved by the Millard County Commission.

Finding: Projects with impacts to climate change that cannot be accurately, scientifically and statistically quantified on a state, national and worldwide basis are found to be of no significant impact, unless otherwise approved by the Millard County Commission.

Policy: Site specific and cumulative climate change analysis for projects in Millard County shall include comparative estimates for all contributors to climate change on a statewide, national and worldwide basis. Specifically, managers shall identify and disclose their own agency's statewide, national and worldwide contribution to climate change.

Finding & Policy: Millard County's contribution to climate change, if any, is negligible. Projects analyzed for climate change shall not be deemed to impact climate change in an appreciable manner unless quantifiably and statistically proven otherwise by quantifiable confirmatory analysis.

Finding & Policy: Agencies managing for climate change shall comply with Millard County standards for pinyon / juniper reduction, seral stage targets, stand density targets, vegetative cover, and soil productivity prior to implementing other measures, unless specifically approved by the Millard County Commission.

References

Soil Survey of Millard County, Eastern Part, USDA Natural Resource Conservation Service, Victor L. Parlsow, et al

Geology of Millard County Utah, Bulletin 133, Utah Geological Survey, Hintze & Davis, 2003

2.4 SOIL RESOURCES

(Reserved)

2.5 WATER RESOURCES

Current Setting

Water is one of the most important if not the most important natural resource in Millard County. About 76% of Millard County is federal land, and most of the approximately 13% private lands are concentrated in valley bottoms and along water courses. Consequently, almost all surface water and the majority of watersheds are located on federal land. Millard County is home to nine major sub-basin watersheds: Beaver Bottoms-Upper Beaver, Lower Beaver, Lower Sevier, and Sevier Lake whose flows terminate in Sevier Lake and Pine Valley, Hamlin-Snake Valleys Tule Valley, Pahvant Valley, and a small portion of Southern Great Salt Lake

Figure 2.5.1. Millard County Sub Basin Watersheds

Millard County has numerous small creeks but only two major watercourses that flow into Sevier Lake, the Beaver River and the Sevier River. These rivers collect drainage from seven other counties before terminating their course. These rivers along with the many small streams and creeks that serve as their tributaries are fed mainly by snowmelt and groundwater discharge from nearby mountains and are augmented by storage impoundments and rainfall, especially during the late summer monsoon season. Rainfall in Millard County is not adequate for most commonly grown crops and is generally the limiting factor for vegetative cover on state and

federal lands. Supplemental irrigation is required to obtain acceptable crop yields, and most irrigation water is diverted from the rivers and streams and stored in reservoirs for agricultural purposes. Numerous storage impoundments of various size exist in the seven upstream counties, but the most prominent storage facilities in Millard County are the DMAD and Gunnison Bend Reservoirs. Sevier Lake is a natural inland lake left over from the Lake Bonneville era, but no uses exist downstream. In addition to the major reservoirs, as many as 30 smaller reservoirs and ponds have been built in the area, and they are used mainly for water regulation and small scale irrigation, rather than large scale storage.

Domestic water comes from natural springs and wells around the county. According to 2012 agricultural census, there are about 508,000 acres in farms and ranches (12% of the land base) and 115,000 acres under irrigation (2.6% of the land base) in Millard County. Irrigation water in Millard County comes primarily from the surface waters cited above and is augmented by wells. In 2015 approximately 15 irrigation companies were listed as operating in Millard County.

Need for Management Change

1) Land managers need to continue recognizing the invaluable role of water and optimize scarce water resources.

2) Eradication of noxious and invasive weeds, restoration of encroaching conifer woodlands to desirable vegetative communities and minimization of bare ground are needed to maximize beneficial use and quality of scarce water resources.

3) To optimize water resources, land managers need to focus on restoration of desirable vegetative communities rather than restricting human activities.

Desired Future Conditions

Millard County desires:

a) Scarce water resources are maximized for beneficial use.

b) Land managers prepare for changing climatic conditions by optimizing land health by while protecting and enhancing multiple-use activities.

c) A greater emphasis be placed on water development projects that optimize use and benefit of scarce water resources.

d) Land managers eradicate undesirable riparian species and noxious weeds in Millard County.

e) Land managers maximize desirable native and non-native vegetative cover to optimize use of water resources.

Findings, Policies, Goals & Objectives, Criteria

Finding: Water is a scarce commodity and its beneficial use needs to be maximized to promote and achieve a productive and enjoyable harmony between man and his environment.

Policy: Federal, state, local and private land managers shall cooperate and coordinate with Millard County to maximize beneficial use scarce water resources.

Policy: Land managers shall optimize vegetative cover to improve streambank stabilization and protect upland and rangelands from excessive runoff.

Finding: Consistency with Millard County's Resource Management Plan optimizes use of water resources and promotes a productive and enjoyable harmony between man and his environment.

Policy, Goal & Objective: To the maximum extent allowed by law, land managers shall be consistent with Millard County's Resource Management Plan, unless otherwise approved by the Millard County Commission.

Policy: Millard County will cooperate and coordinate with private landowners, permittees, state agencies, and federal partners with planning and implementation efforts to improve water quality and quantity on private and public lands.

References:

2012 Census of Agriculture - County Data, USDA, National Agricultural Statistics Service

2.5.1 HYDROLOGY

Current Setting

Hydrology is the science that encompasses the occurrence, distribution, movement and properties of the waters of the earth and their relationship with the environment within each phase of the hydrologic cycle. The hydrologic cycle (also known as the water cycle) is a continuous process by which water is deposited on the land, purified by evaporation and transported from the earth to the atmosphere and then back to the land. There are many pathways the water may take in its continuous cycle of falling as rainfall or snowfall and returning to the atmosphere. It may be captured for millions of years in polar ice caps. It may flow to rivers and finally to the sea. It may soak into the soil to be evaporated directly from the soil surface as it dries or be transpired by growing plants. It may percolate through the soil to groundwater aquifers, or it may flow to wells or springs or back to streams by seepage. The cycle for water may be short, or it may take many years. Nature and man each employ portions of the hydrologic cycle for their own purposes. After use, water is returned to another part of the cycle through discharge, allowing it to soak into the ground or through evaporation. Water that has been in contact with the land is often lower in quality, even after treatment, than that which falls as precipitation.

This section discusses fundamental transport processes as water moves through the cycle and associated watershed management.

Millard County is an arid environment. Even in mountainous areas of the County where precipitation is higher, water is in limited supply. Generally, eastern Millard County is at higher elevation and receives a greater amount of annual precipitation than the western portion of the County, but central and western mountains receive more precipitation than valley bottoms. Mountain and forested areas in the east generally have sufficient vegetative cover and ground litter to allow infiltration of precipitation, especially during the spring when snowmelt occurs gradually. A notable exception is where encroaching conifers have been allowed to invade and replace historic sagebrush / grassland ecosystems.

The foothills and lowlands of the county are characterized by sparse vegetation, exposed soils and more arid conditions. Intense late summer rain storms often result in flash flood conditions with attendant sediment transport and erosion. Many if not most of the watercourses are ephemeral washes with little or no riparian vegetation. Over the past several years, storm runoff intensity appears to have increased. There has been little to no human development in the area, but banks are not stabilized, and streambeds are often subject to downcutting. Sediment transport is at unacceptable levels and is impacting water quality.

Additionally, many of the watercourses in dryer portions of the County are infested with undesirable riparian vegetation; e.g. Tamarisk and Russian Olive. These invasive species replace desirable vegetation and dominate limited water resources.

Need for Management Change

1) Land management agencies have no control over timing and quantity of precipitation, so management efforts need to concentrate on activities within their control such as vegetative cover, active stream bank stabilization, water detention, and eradication of undesirable invasive species.

2) Many areas of the County lack desirable vegetative ground cover. Land managers need to implement projects to increase native and non-native vegetative ground cover percentages to acceptable levels.

3) Land managers need to prioritize structural and non-structural projects and best management practices that are designed to reduce stormwater volume, peak flows, and/or nonpoint source pollution through evapotranspiration, infiltration, detention, hydrograph extension, and filtration over restricting human development and multiple-use / sustained yield activities.

4) Land managers need to implement structural and non-structural perennial, intermittent and ephemeral stream stabilization projects that reduce stream sedimentation and erosion while enhancing riparian areas, wetlands and vegetation for wildlife and livestock.

5) Undesirable vegetation, particularly adjacent to watercourses, needs to be removed and replaced with desirable native and non-native vegetation communities that retain bank stability and provide appropriate channel shade.

6) Prior to the first season prone to erosive storms, acceptable ground cover needs to be recruited, established, re-established, or retained after prescribed or wildland fire.

7) Land managers need to coordinate programmatic agreements, best management practices and prioritization schedules for improving hydrologic functions and conditions with Millard County.

8) Enhanced programmatic agreements and best management practices associated with prescribed and wildland fire need to be implemented to protect hydrologic function and condition in Millard County.

Desired Future Conditions

Millard County desires:

a) Land management agencies significantly increase implementation of projects to improve vegetative cover, stream bank stabilization, water detention, and eradication of undesirable invasive species.

b) Land managers increase native and non-native vegetative ground cover percentages to at least 25% of soil potential by 2025 and at least 50% by 2050.

c) Land managers prioritize structural and non-structural projects and best management practices that are designed to reduce stormwater volume, peak flows, and/or nonpoint source pollution through evapotranspiration, infiltration, detention, hydrograph extension, and filtration over restricting human development and multiple-use / sustained yield activities.

d) Land managers implement structural and non-structural perennial, intermittent and ephemeral stream stabilization projects that reduce stream sedimentation and erosion while enhancing riparian areas, wetlands and vegetation for wildlife and livestock.

e) Undesirable vegetation in and near watercourses is removed and replaced with desirable native and non-native vegetation communities that retain bank stability and provide appropriate channel shade.

f) Acceptable ground cover is recruited, established, re-established, or retained after prescribed or wildland fire prior to the first season prone to erosive storms,

g) Land managers coordinate programmatic agreements, best management practices and prioritization schedules for improving hydrologic functions and conditions with Millard County.

h) Enhanced programmatic agreements and best management practices associated with prescribed and wildland fire are implemented to protect hydrologic function and condition in Millard County.

Findings, Policies, Goal & Objectives

Finding: Consistent with ecologic site descriptions, vigorous native and non-native vegetative ground cover is the most influential factor land managers can control to maintain and enhance hydrologic function and condition.

Finding: Many areas of the County lack adequate vegetative ground cover, and projects need to be implemented to increase desirable native and non-native vegetative communities consistent with ecological site descriptions.

Objective: Where capability exists, restore, maintain and improve hydrologic function through reduction of overland flow, increased infiltration, and replacement of invasive/undesirable species with desirable native and non-native vegetative communities.

Policy: Livestock grazing is compatible with proper hydrologic function when lands are actively managed to optimize land health in accordance with the provisions of this Resource Management Plan. Land managers have sufficient resources and techniques to be consistent with Millard County's RMP. If sufficient resources and techniques become unavailable, land managers shall – to the maximum extent allowed by law – develop and implement alternate plans in cooperation and coordination with Millard County and as approved by the County Commission.

Policy: Consistent with this RMP and in cooperation and coordination with Millard County, land managers shall implement appropriate best management practices, mitigating measures and management actions affecting soil health to decrease wind and water erosion and sedimentation, to achieve and maintain ecologic stability, and to support the hydrologic cycle by providing for water capture, storage, and release.

Policy: Vegetative resources shall be managed in a condition that will provide sufficient cover and litter to protect the soil surface from excessive wind and water erosion, reduce bare ground, promote infiltration, detain surface flow, and reduce soil moisture loss by evaporation. This includes making provisions for:

a) reducing the percentage of unvegetated ground;
b) reducing the percentage of undesirable, invasive or noxious vegetation in relation to desired plant communities;
c) restoration or enhancement of perennial, intermittent and ephemeral watercourses to properly functioning condition; and
d) preservation of phreatophytic plants in desert valley bottoms to control dust and erosion.

Finding & Policy: Vegetative cover is more desirable and effective than biologic soils when managing for land health in Millard County. Desirable native and non-native vegetative cover shall be given preference over biologic soil crusts when ecologic site conditions permit.

Policy: Appropriate native and non-native plant species shall be used for vegetation and reseeding treatments to protect and optimize site stability, hydrological function, and biological integrity. Native only seedings may be used when required by law or when proven to provide greater ecologic benefit than native/non-native mixtures. Phreatophytic plants in desert valley bottoms should be preserved and/or used to control dust and erosion.

Goals & Objectives: Unless otherwise approved by Millard County and consistent with ecologic site conditions, the following minimum objectives are established when lands experience prescribed or wildland fire:

1. Retain 40 percent ground cover after the burn with recruitment to 60 percent ground cover before the first rainy season following the burn.
2. Do not reduce perennial and intermittent channel shading more than 20 percent of the natural range of variability or by an amount that will take more than three years to recover, whichever is smaller.
3. "Burn" and/or "feeder" piles will not be made in channels or swales within the area occupied when the bank full width is doubled.
4. Burned piles within riparian areas will be left "messy" in order to retain sediment on site.
5. Ignitions will not occur within 15 feet of riparian areas.
6. Any firelines created during burning operations will follow *The Five-D System for Effective Fireline Waterbars* (Hauge et al., 1979).
7. Firelines that need to cross riparian areas will do so perpendicular to the channel and should not have more than 40 feet of hydrologic connectivity.
8. Cupped fire lines should have water gaps every 20 feet to allow captured water to exit.
9. Existing disturbance areas, such as roads and trails, should be used to the extent possible as fire lines.

Goals & Objectives: Unless otherwise approved by Millard County and consistent with ecologic site conditions, the following minimum objectives are established when lands experience mechanical treatments:

1. Retain a 60 percent ground cover or pre-treatment level ground cover (if less than 60 percent) over the treatment area.
2. Mechanical equipment should not cross live streams or those channels supporting riparian vegetation except at designated crossing sites. Every effort to use existing crossings should be made.
3. Crossings at watercourses should be as close to perpendicular to the channel as possible to limit the area of disturbance.
4. Hydrologic connectivity of crossings should be limited to 20 feet on either side of the stream course wherever possible.
5. Any sediment or debris pushed into the channel to facilitate a crossing shall be removed as soon as practical. The disturbed area will be rehabilitated to reduce erosion within the channel and may include adding mulch, slash or debris from the project area to reduce flow and erosion potential.
6. Mechanical treatments should occur on the contour as much as practical.

7. Mechanical equipment should be limited to areas where slopes are less than 35 percent. Stretches of 200 feet or less on slopes of up to 50 percent may be treated to achieve desired objectives.
8. Mechanical equipment should not operate when the soil exceeds 20 percent moisture content, or when equipment is creating ruts deeper than nine inches in muddy soil.

Goals & Objectives: Unless otherwise approved by Millard County and consistent with ecologic site conditions, the following minimum objectives are established when lands undergo vegetative treatments:

1. No sediment or slash will be introduced into stream channels. Inadvertently introduced material will be removed except where it would cause more damage to retrieve than would occur due to its remaining.
2. Roads, paths, ways, and trails shall be maintained, restored or improved to a condition equal to or better than that which existed at the start of the project.
3. Project related damage to roads and their drainage features shall be repaired before the next rain or the close of the construction season, whichever is sooner.
4. Fueling of drip torches and other equipment shall not occur within riparian areas.

References: Hauge, C.J., M.J. Furniss and F.D. Euphrat. 1979. *Soil Erosion in California's Coast Forest District.* California

2.5.2 WATER RIGHTS & IRRIGATION

Introduction

Utah is one of the driest states in the nation, and water is Millard County's most precious natural resource. Existing water supplies have been carefully managed through established law; and developing any significant new supplies may be difficult and costly.

2.5.2.1 Water Rights

Current Setting

Since the beginning of time, man has used water to sustain life and for his personal needs; and for thousands of years, farmers all over the world have used irrigation—diverting water from streams and rivers to water their fields. The Ancestral Puebloan people in the Four Corners region irrigated small plots of corn, bean, and squash. But the early Utah pioneers of 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 principal 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.

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.

The Office of the State Engineer was created in 1897. The State Engineer is the chief water rights administrative officer. A complete "water code" was enacted in 1903 and was revised and reenacted in 1919. This law, with succeeding complete reenactments and amendments is presently in force mostly as Utah Code, Title 73. In 1967 the name of the Office of the State Engineer was changed to the Division of Water Rights with the State Engineer designated as the Director, but the public sometimes still refers to the Division as the State Engineer's Office.

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;
- A specified point of diversion and source of water;
- A specified place of beneficial use.

Rights for water diversion and use established prior to 1903 for surface water or prior to1935 for groundwater 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.

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.

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.

The Sevier River, Pahvant Valley, and Beaver River watersheds in the eastern portion of the County are closed to all new appropriations. All new groundwater development in these areas is based on the acquisition and changing of existing valid water rights from surface (including direct flow and reservoir storage) and underground sources. Groundwater resources in the Great Salt Lake drainage basin are still open to appropriation. There is a small area between the two where appropriation is restricted

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.

The Division of Water Rights is the state agency that regulates the appropriation and distribution of water in the State of Utah. Throughout the United States, federal agencies generally acquire water rights under state law. For instance, the United States has numerous stockwatering rights under state law on BLM and national forest lands. The United States has also received partial decrees for state water rights for domestic, irrigation and other uses, such as wildlife, commercial, power, and recreation for Forest Service lands and partial decrees for water uses associated with irrigation on BLM lands. In addition, the United States typically acquires water rights for federal reclamation projects under state law.

In recent years, there has been significant discussion regarding acquisition of water rights by federal land management agencies for livestock grazing, wildlife and other authorized purposes. Some argue the water rights should be in the name of the federal agency. Others assert water rights should be perfected under the name of the permit holder or authorized user.

Federal Reserved Water Rights

In addition to water rights appropriated through the State Engineer's office, certain federal agencies may also acquire water rights for their primary purposes as described in their enabling legislation. These rights are known as "federal reserved water rights" and may be created when federal lands are withdrawn from the public domain for national parks, wildlife refuges, national forests and other specific uses.

Federal reserved water rights are different from state appropriated water rights. They may apply to instream and out-of-stream water uses, may be created without actual diversion or beneficial use, are not lost by non-use, and have priority dates established as the date the land was withdrawn. Another important aspect of federal reserved water rights is they are limited to the minimum amount of water reasonably necessary to satisfy both existing and foreseeable future uses of water for the primary purposes for which the land is withdrawn. All other water rights for federal purposes must be obtained under state law.

Federal reserved water rights are a judicial creation with the United States Supreme Court first recognizing reserved water rights in the 1908 *Winters v United States* case. Since that time there have been numerous court actions further defining applicable law. Most recently, the State of Utah and federal agencies have chosen to employ a negotiated approach rather than engage in expensive and often contentious litigation. Negotiated agreements have been reached for Zion National Park, Rainbow Bridge, Hovenweep, Cedar Breaks, and Timpanogos Cave National Monuments; and for the Golden Spike National Historic Site. Negotiations are currently underway for Bryce Canyon National Park.

Need for Management Change

1) Adequate water needs to be developed to meet the diverse current and future needs of Millard County. Federal, state and local entities need to coordinate and cooperate in the preservation and development of water resources in Millard County

2) Water related issues need to be coordinated between federal, state, local and private stakeholders.

3) Federal, state and local entities need to coordinate definitive resolution of federal reserved water rights.

4) The State of Utah needs to resolve issues regarding ownership of water rights on federal lands for wildlife, livestock and other authorized purposes.

5) Increasing basal areas and unhealthy tree densities, conifer encroachment and progression of invasive species diminish water resources in Millard County; and land managers need to manage for historic forest and sagebrush semi-desert grassland conditions in order to optimize hydrologic function and land health.

6) Failure of land managers to maintain historic vegetative communities has resulted in a loss of water resources which needs correction.

Desired Future Conditions

Millard County desires:

a) adequate water is developed to meet the diverse current and future needs of Millard County.

b) Existing water resources be augmented and historic resources be restored through appropriate timber harvests, restoration of Class II and Class III pinyon/juniper woodlands to sagebrush / grassland habitats, and control of invasive weeds.

c) Water related issues are coordinated with Millard County and managed consistent with Millard County's Resource Management Plan.

d) Federally reserved water rights be limited to the minimum allowed by an entity's enabling legislation.

e) Federal, state and local entities coordinate definitive resolution of federal reserved water rights consistent with the provisions of this RMP.

f) The State of Utah develops definitive resolution regarding ownership of water rights on federal lands for wildlife, livestock and other authorized uses.

g) Irrigation rights be preserved to the maximum extent allowed by law.

Findings, Policies, Goal & Objectives

Finding: Water is a scarce resource and needs to be developed to the maximum extent possible to promote productive and enjoyable harmony between man and his environment.

Policy: Water is a vital component in almost all aspects of the environment, and water development is prioritized over other multiple-use / sustained yield activities unless otherwise approved by the Millard County Commission.

Finding & Policy: Additional water needs to be developed, to the maximum extent practical and in accordance with Utah water law.

Policy: Water related issues shall be coordinated with Millard County and managed consistent with Millard County's Resource Management Plan to the maximum extent allowed by law.

Goal & Objective: Resolve issues associated with federal reserved water rights in accordance with law and consistent with this RMP.

Goal & Objective: Resolve issues associated with ownership of water rights on federal lands for wildlife, livestock and other authorized uses.

Finding: Federal agencies in Millard County were created subject to the historic climatic conditions of the area, and no additional water resources are needed unless approved by the County Commission.

Policy: Unless new water developments are created upstream from federal reservations after August 1, 2017, the natural hydrologic process provides the necessary resources to achieve their primary purposes.

Finding: The existing system of water right appropriation and adjudication is adequate for privately held water rights.

2.5.2.2 Irrigation

Current Setting

In July 1847, Utah's pioneers arrived in the arid West from their rainy roots in the East. One of their initial tasks was to divert water from the Salt Lake Valley streams for irrigation use. They realized that irrigation systems were the key to growing crops and surviving in this desert land. As additional people arrived in the harsh climate, scouts were sent out to survey undeveloped land and identify potential water sources before new areas could be settled. Once it was determined that there was water for irrigation, people established self-sufficient agricultural communities and set up "water rights." Millard County's settlements were formed under this pattern.

An irrigation system must include a water source, a conveyance system and some way to distribute the water to the crops. The source of water may be a reservoir, pond, well, stream or river. A reservoir or pond is a more reliable source of water because it can be managed to retain a desired amount of water. Rivers and streams are more susceptible to fluctuations in weather patterns. In the western United States, there is usually plenty of water running in streams and rivers during the spring, but not nearly enough for crops in the summer and fall. If an irrigation system has some storage capacity, such as a reservoir, water resources may be more easily controlled throughout the year.

The conveyance system allows water to be transferred from a water source to the place of use. This can be achieved with canals, ditches, pipelines or any combination of these. Ditches and canals are usually open to the air and are more susceptible to seepage (leaking) and evaporation than pipes. A ditch or canal can be unlined or lined with concrete, clay or impermeable membranes. Lined canals are much more efficient than unlined canals because they prevent water from seeping into the earth. Irrigation systems are necessary in Millard County and are a vital part of the area's socio-economic stability

There are two basic types of agricultural irrigation systems: flood and sprinkler. Flood irrigation consists of releasing water over the surface of the land to flood the area. Flood irrigation is the oldest form of irrigation and can be used for any crop. Ideally, the land is slightly sloped, but level enough for the water to distribute evenly over the surface. The more level the land, the more efficient the flooding. On average, flood irrigation systems in Utah have efficiencies of roughly 35 to 55 percent. These efficiencies take into account the reservoirs, canals and ditches that transport the water to the field, and not just the time when the water is soaking into the plant roots. Most of the inefficiencies in the flood irrigation systems come from evaporation loss and water soaking into the soil in canals and ditches.

Sprinkler irrigation systems utilize pipes and sprinklers to distribute water to the desired area and are usually more efficient than flood irrigation systems. On average, agricultural sprinkler systems in Utah are about 60 percent efficient. But sprinklers are more susceptible to wind than flood systems and can have much lower efficiencies in windy conditions. As technology improves, irrigation systems are becoming increasingly efficient.

Millard County contains approximately 508,000 acres in farms or ranches with an average size of about 700 acres. The County has about 115,000 acres in cropland which are irrigated. Sprinkler irrigation has been an important part of Utah's agricultural production since the early 1950s. About 40% of Utah's 1.3 million irrigated acres are watered with sprinklers, including hand move, wheel move, center pivot and other types. Although many smaller ponds and reservoirs exist, DMAD Reservoir and Gunnison Bend Reservoir are the primary irrigation

storage facilities in the County. As of 2015, 28 irrigation or canal companies were listed on Utah's open data catalog.

Need for Management Change

1) Irrigation is part of Millard County's custom, culture and heritage and is vital to community and socio-economic stability. Irrigation needs to be preserved, improved and enhanced.

2) Land management practices need to support preservation, improvement and enhancement of irrigation resources.

3) Land managers need to recognize irrigation as a cultural resource and take management actions on their lands that will result in preserved, improved and enhanced irrigation.

4) Land managers need to implement avoidance, minimization and mitigation techniques and best management practices to support irrigation while allowing appropriate multiple-use / sustained yield activities to proceed.

5) Land managers need to recognize Millard County is not the primary headwaters of the Sevier River and actions in Millard County do not impact activities downstream.

Desired Future Conditions:
Millard County desires:

a) Irrigation be preserved, improved and enhanced and federal land managers support preservation, improvement and enhancement of irrigation on private lands through appropriate actions on federal lands.

b) Irrigation be recognized a cultural resource and management actions be taken that will result in preserved, improved and enhanced irrigation.

c) Land managers implement avoidance, minimization and mitigation techniques and best management practices to support irrigation while allowing appropriate multiple-use / sustained yield activities to proceed.

d) Land managers recognize Millard County is not the primary headwaters of the Sevier River and actions in Millard County do not impact activities downstream.

e) Unimpeded and efficient flow of current and future irrigation waters across federal lands.

f) Appropriate irrigation related resources be added to the County's list of historic/cultural resources and landmarks.

g) Removal of encroaching pinyon / juniper woodlands, undesirable riparian vegetation, and cheatgrass which negatively impact water quality, water quantity and irrigation resources in Millard County and for downstream users.

h) Lands are managed to increase water development and resources.

Findings, Policies, Goals & Objectives

Finding: Irrigation was one of the first beneficial uses for water resources when Millard County was settled and has become more efficient over the years. Decline of ecosystem health during the last 50 years – especially on federal lands - is a result of failures to implement active management rather than a result of limited human influences associated with multiple-use / sustained yield projects.

Finding & Policy: Properly designed human influences including dam construction, irrigation projects, water development, culvert installation, road maintenance and road development improve water quality, water quantity and ecosystem health.

Policy: Millard County opposes plans and/or policies on federal lands that limit:
a) development of or
b) access to water and irrigation resources.

Finding & Policy: Irrigation structures, water and sources are a significant historic, cultural, socio-economic, and ecologic resource and shall be protected, improved and enhanced to the maximum extent allowed by law.

Finding & Policy: Consistent with ecologic site descriptions and based on a 10 year rolling average, land managers shall restore 2.5% of Class II and Class III pinyon / juniper woodlands to desirable native and/or non-native sagebrush / grassland communities in order to protect, preserve, improve and enhance irrigation resources in Millard County.

Policy: Millard County will cooperate and coordinate with water companies, irrigation companies, conservation districts, state agencies, federal agencies and other partners to manage and develop current and future irrigation and water resources.

Policy: NEPA analysis for projects that impact irrigation resources shall include detailed socio-economic impacts to irrigators, especially small farmers, water companies and municipalities. Provisions of the Regulatory Flexibility Act will serve as a model for such analysis.

References:

2012 Census of Agriculture - County Data, USDA, National Agricultural Statistics Service

2.5.3 Surface Waters

Current Setting

More than 75% of Millard County is federal land, and most of the approximately 13% private lands are concentrated in valley bottoms and along water courses. Consequently, almost all surface water and the majority of watersheds are located on federal land. Millard County is home to nine (9) major sub basin watersheds: Beaver Bottoms-Upper Beaver, Lower Beaver, Lower Sevier, Sevier Lake, Pine Valley, Hamlin Snake Valley, Pahvant Valley, Tule Valley, and a small portion of Southern Great Salt Lake.

Four of the watersheds in the western portion of the County develop surface waters which flow north and eventually terminate at the Great Salt Lake. The other four located in the eastern portion of the County receive water from the Sevier River basin from as far away as the Dixie National Forest in Garfield County and transfer it to its terminus at Sevier Lake.

Surface water can generally be described as a river, stream, waterbody, reservoir, lake, pond, or spring. Rivers and streams in natural channels are classified as being perennial, intermittent, or ephemeral. Millard County has many small rivers, streams and creeks, all of which are important. The most prominent watercourses include the Sevier River, Beaver River, and as many as 44 other named streams and creeks. These streams are fed mainly by snowmelt and groundwater discharge from nearby mountains and are augmented by rainfall, especially during the late summer monsoon season. Rainfall in Millard County is not adequate for the most commonly grown crops and is generally the limiting factor for vegetative cover on state and federal lands. DMAD and Gunnison Bend Reservoirs are the major irrigation storage facilities in the area. In addition, Online Utah lists 27 smaller reservoirs and ponds in the area which are used mainly for irrigation and water regulation, rather than large scale storage.

Over the past 50 years ecological conditions associated with many of Millard County's surface waters have declined. The declines are particularly pronounced on federal lands where pinyon /

juniper woodlands have been allowed to encroach on more desirable sagebrush/grassland communities, where seeding maintenance and vegetation projects have been neglected and where undesirable vegetation in and near watercourses have not been controlled. Often, these conditions occur in sandier soils where sparse vegetative cover is inadequate to prevent soil erosion accompanying intense precipitation events.

Land managers often incorrectly cite human influences (dam construction, irrigation projects, poorly designed culverts, livestock grazing, roads, farming/ranching practices, mining, recreational use, etc.) as the primary cause for the ecologic decline. However, much of the decline is attributable to loss of historic sagebrush / grassland vegetative communities, especially in lower elevations with sandier soils.

Most human use of the water from rivers, streams, and waterbodies is for agricultural purposes. Other beneficial uses are limited to recreational pursuits with fishing in the mountain streams being one of the most popular.

Historically numerous small springs, seeps and mesic areas were widely scattered across the County, often located on valley margins or mountain blocks but extended throughout various landforms. The small springs and seeps were extremely important for their riparian values, as wildlife habitat, and as drinking water for domestic livestock and wildlife.

Many of these springs have dried over the last several decades as a result of encroaching pinyon / juniper woodlands and invasion of undesirable vegetation in and near watercourses. Where pinyon / juniper woodlands in neighboring counties have been restored to sagebrush / grassland communities, the springs and seeps are returning and providing water for a variety of wildlife. When needed, the water resources are protected from livestock and wildlife trampling by exclosures and off stream watering practices.

Watersheds on public lands often supply water to communities in Millard County. Surface water is generally used for irrigation purposes, but watershed health and surface water quality and quantity can impact groundwater resources that are used for municipal domestic water supply. Actions on public lands in these watersheds are likely to affect such factors as water quality, water quantity, erosion rates, and groundwater recharge. There is currently a high degree of interest regarding surface water and other water resources.

Need for Management Change

1) During the last few decades land managers have not implemented sufficient management actions to preserve, enhance, improve or optimize surface water resources. Federal, state and local entities need to cooperate and coordinate surface water management to optimize water quantity, quality and beneficial use.

2) Land managers need to recognize authorities granted under the Clean Water Act to local governments in managing surface waters within their jurisdictions. Federal agencies are subject to and must comply with state, tribal, interstate and local requirements respecting the control and abatement of water pollution. (CWA (33 U.S.C. § 1323)). The CWA's regulations (40 C.F.R. part 131) describe state responsibilities for developing, reviewing, revising, and approving water quality standards, which may be more stringent than those required by federal regulation and include designation of uses of waters, establishment of water quality criteria, and adoption of an anti-degradation policy.

3) Land managers need to comply with cooperation and coordination requirements of federal laws, regulations, rules and manuals (e.g. BLM Manual 7240 and Forest Service Manual 2532) regarding state and local direction of water resource management issues.

4) Upland soil loss due to lack of desired vegetative ground cover needs to be addressed as the primary source of nonpoint pollution in Millard County.

5) Until such time as state and federal agencies can coordinate surface water management plans with Millard County, the provisions of this RMP need to control maintenance, mitigation, enhancement, and improvement of surface water resources in Millard County.

Desired Future Conditions

Millard County Desires:

a) Land managers preserve, enhance, improve or optimize surface water resources through active management, especially watershed restoration and improving desirable native and non-native vegetative ground cover.

b) Land managers need to cooperate and coordinate in accordance with federal laws, regulations, rules, and manuals regarding state and local direction of water resource management issues.

c) Surface waters be re-evaluated to verify the designated beneficial use is consistent with hydrologic and environmental conditions. Stream reaches identified as not meeting standards for cold water fisheries need to be reconsidered for classification as a warm water fishery.

d) Upland soil loss due to lack of desired vegetative ground cover be recognized as the primary source of nonpoint pollution in Millard County.

e) The provisions of this RMP be accepted as the controlling maintenance, mitigation, enhancement, and improvement standard for surface water resources in Millard County, until such time as state and federal agencies coordinate surface water management and implementation plans with Millard County.

f) Invasion and encroachment of undesirable watercourse vegetation, pinyon / juniper woodlands and other undesirable species is recognized as negatively impacting surface waters to a much greater extent than human development and impacts from man.

Findings, Policies, Goals & Objectives

Finding: Statistically, human development is extremely limited on the approximate 75% of the land in Millard County that is managed by federal agencies.

Finding: Land managers have not implemented sufficient active management to preserve, enhance, improve, or optimize surface water resources. Federal, state and local entities need to cooperate and coordinate surface water management to optimize water quantity, quality and beneficial use.

Goal: Maintain, improve or enhance surface water resources, while complying with applicable federal, state and local water quality standards.

Objective: Protect, restore and maintain the chemical, physical, and biological (ecological) services of surface waters to support multiple-use / sustained yield resource management needs.

Objective: Protect, restore and maintain the hydrologic regime (i.e., timing, magnitude, recharge, duration, stream network/groundwater connectivity, temperature, and spatial distribution of peak, high, and low flows) of surface and groundwater, through management of vegetation in upland, riparian, aquatic, and wetland habitats.

Policy: Until such time as total maximum daily loads are determined for individual perennial, intermittent and ephemeral streams in Millard County, land managers shall control non-point source pollution, including sediment, by:
a) optimizing desirable upland, riparian, aquatic, and wetland vegetation;
b) restoring 2.5% of Class II and Class III pinyon / juniper woodlands to desirable sagebrush semi-desert grasslands, based on a 10 year rolling average;
c) eliminating noxious weeds and undesirable watercourse vegetation; and
d) using desirable non-native biological equivalents when soil retention and vegetative performance is better than native species.

Policy: Land managers shall comply with applicable federal law; and, to the extent applicable, under the provisions of the Clean Water Act (specifically 33 U.S.C. 1323), state, tribal, and local water laws and regulations.

Policy: Millard County shall coordinate, cooperate, and consult with federal, tribal, state, and local agencies, private landowners, and stakeholder organizations to foster a watershed-based approach to water resource stewardship.

Policy: Consistent with federal, state and local water quality programs, federal actions shall include at least one alternative that incorporates a science-based watershed approach for water quality protection and restoration, including assessment methods, monitoring and reduction of non-point pollution through vegetative restoration.

Finding: Modification and pollution of surface-water, wetlands, riparian habitats, seeps, and springs in Millard County are more influenced by vegetative cover, prescribed fire and wildland fire than by mitigated impacts from residential, commercial, and urban development, roadway and bridge construction, oil and gas development, livestock grazing, hydroelectric, wind and solar energy development, geothermal exploration and plant development, pipeline and transmission line construction, and other human activities.

Finding & Policy: New water developments are beneficial to all forms of life. In priority wildlife management areas new water developments shall be allowed if it is demonstrated, among other benefits, the improved water resources will benefit the prioritized species.

Finding: Millard County's watercourses provide naturally fragmented habitat for native cutthroat trout and other coldwater species. Warm temperatures and high sediment loads restrict native cutthroat use of many stream segments for much of the year, and allow only limited connectivity between tributaries. The existing salmonid fish distribution and habitat conditions suggest the Millard County streams may provide seasonal fish passage to tributaries, but may not support year-round cold water fish use.

Policy & Goal: Priorities for improving water quality in the Millard County's watershed are:
1) enhancement of desirable upland and riparian vegetative cover;
2) elimination of undesirable vegetation, particularly near watercourses; and
3) enhance channel bank vegetation, riparian forest buffers and herbaceous cover, streambank protection, and channel stabilization.

Policy: Prior to adopting best management practices for surface waters in Millard County, federal agencies shall coordinate proposed practices with Millard County and shall comply to the maximum extent allowed by law with the County's plans, policies and programs.

Finding: Forests, grasslands and rangelands are capable of producing high-quality water, especially when the ecosystems are healthy and functioning properly. Water quality is influenced by the pattern, magnitude, intensity, and location of land use and management activities. Excess sediment (turbidity and bedload), nutrients, and their resulting effects on water chemistry and aquatic habitats, are the most significant water quality issues resulting from land uses and management activities on Millard County's forests, rangelands and grasslands

Policy: Preventing negative water quality impacts is more efficient than attempting to repair the damage. To ensure water quality is protected, land managers shall develope procedures, methods, and controls, consistent with federal, state and local requirements, to address sedimentation and potential pollutants at their source. Implementation and monitoring of Best Management Practices (BMPs) is a fundamental basis of water quality management programs to protect, restore, or mitigate water quality impacts from activities on Millard County lands.

Policy: Millard County's policy for control of nonpoint source pollution is to
a) enhance desirable vegetative cover wherever possible;
b) apply appropriate adaptive management principles; and
c) implement effective site specific best management practices.

Goal: Avoid, minimize or mitigate adverse effects to soil, water quality, and riparian resources that may result from prescribed or wildland fire.

Objective: Rehabilitate watershed features and functions damaged by wildland fire control and suppression related activities to avoid, minimize, or mitigate long-term adverse effects to soil, water quality, and riparian resources.

Objective: Avoid, minimize, or mitigate adverse effects to soil, water quality, and riparian resources by managing vegetative resources and upland sites to maintain desirable ground cover, maintain soil quality and control runoff to minimize the discharge of nonpoint source pollutants and maintain streambank and riparian area integrity.

Goal: Retain 40 percent ground cover after prescribed or wildland fire with recruitment to 60 percent ground cover before the first rainy season following the burn.

References:

Utah Statewide Nonpoint Source Pollution Management Plan, Utah Department of Environmental Quality, May 2014

National Best Management Practices for Water Quality Management on National Forest System Lands, United States Department of Agriculture Forest Service, April 2012

Federal Land Policy and Management Act of 1976 (FLPMA; 43 U.S.C. §§ 1701-1785).

Clean Water Act (CWA) of 1977 as amended.

Safe Drinking Water Act (SDWA) of 1974 (42 U.S.C. §§ 300f-300j.

Resource Conservation and Recovery Act of 1976 (RCRA) (42 U.S.C. § 6901 et seq.).

National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. § 4321 et seq.).

2.5.3.1 Ditches & Canals

Current Setting

Ditches and canals are open waterways whose purpose is to carry water from one place to another. Canals generally refer to main waterways supplying water to one or more farms or distribution points. Ditches are smaller systems and convey water from farm entrances to irrigated fields. At times the nomenclature for ditches and canals is used interchangeably.

For thousands of years, farmers all over the world have used irrigation—diverting water from streams and rivers to water their fields. The Ancestral Puebloan in the Four Corners region irrigated small plots of corn, bean, and squash. But the Mormons settling in Utah were the first to use irrigation on a large scale in the American West. They established the first irrigation-based economy in the Western Hemisphere in modern times. One of the first things the settlers in Salt Lake Valley did in July 1947 was to dam City Creek so the overflowing waters would soften the soil, and they could plant potatoes. By 1865, approximately 1,000 miles of canals had been established in Utah.

In the last two decades of the 19th century, private companies attempted to replicate the early settler's irrigation techniques and established irrigation companies in an attempt to provide more land for agriculture. The attempts were met with limited success. In 1902, the U.S. Congress passed the Federal Reclamation Act and began building big dams in the West. The act encouraged the development of larger water storage and conveyance projects. The resulting dams, reservoirs and water pipelines allowed for bigger cities and larger agricultural, industrial, and recreation endeavors.

Millard County's development of canals and ditches paralleled that of other communities in Utah. Ditches and irrigation canals were dug in and around agricultural interests near communities and in outlying valleys. The small amount of private land and the rugged, remote nature of many of the federal lands limited the extent to which ditches and canals could be constructed. However, natural conveyance systems (riverbeds, creeks and streams) were used to transport water from natural sources and storage facilities to locations where it was regulated and allowed to enter the developed distribution system. Most populated areas of Millard County and associated agricultural activities had ditches and canals constructed early in the community's development, and they remained relatively unchanged for approximately 100 years. During these years ditches and canals served dual purposes of conveying irrigation water and providing an outlet for dispersing flood waters resulting from frequent high intensity storms common to the area.

In addition to implementing traditional uses of ditches and canals to bring water to dry fields, pioneers of the mid 1800s discovered numerous areas in Millard County that exhibited high groundwater conditions that made the land unsuitable for agriculture, settlement and development. These hardy pioneers dug canals and ditches to drain the land and lower the water table. The historic ditches and canal have, in many cases, expanded over the years and provide dry land in the upper wateshed for agriculture and water resources in the lower watershed for irrigation purposes. The drainage ditches remain an important component of modern agricultural practices.

In the latter third of the 20th century, improved techniques and construction methods led to the conversion of earth-lined ditches to lined canals and pipelines. Although more efficient in the use of water, the developments resulted in many historic ditches falling into disrepair and the loss of flood control capabilities. Many of the larger conveyance networks have remained operational and provide continued service, while many of the smaller facilities associated with individual farms and irrigation companies have been replaced by pipelines.

In Utah, like most parts of the arid West, water often has to be conveyed a long distance between the source and the place of use. Accordingly, there are numerous ditches, canals, and pipelines that cross one person's private property in order to convey water to another private party. The person using the ditch, canal, or pipeline generally has an easement, either by prescription or by an express grant of easement. Whether prescriptive or express, the easement includes the right to maintain the ditch, canal, or pipeline.

Utah case law establishes that the easement holder has the right to enter upon the land of the other party in order to maintain, clean, and/or repair the ditch, canal, or pipeline--provided that the easement holder does not cause any unnecessary damage or create additional burdens on the

land. Additionally, the easement holder has the right to improve the method of carrying the water; i.e., the easement holder generally has the right to convert an unlined ditch into a lined ditch, or convert an open canal to a pipeline.

The property owner cannot limit the easement holder's access to the easement for maintenance and repairs. For example, the property owner should not "fence out" the easement holder with locked gates, unless the property owner provides the easement holder with keys for the locks.

The underlying property owner also does not have the right to interfere with the easement holder's use of the easement. For example, the property owner cannot change the course of the ditch or canal without the easement holder's consent. The property owner also cannot construct facilities on or in the easement that would restrict the easement holder's access to or use of the easement.

In the late 1800s and early 1900s several laws were enacted granting ditch and water companies easements for their conveyance systems across federal lands. Given the distances between water sources and areas of beneficial use, many of the ditches and canals were located in natural water courses. Those watercourses continue to be use today as primary conveyance systems connecting lakes and reservoirs with private irrigation systems.

Need for Management Change

1) Ditches and Canals need to be maintained in order to perform mutually beneficial functions of water conveyance, drainage control and flood control.

2) Where ditches and canals exist on federal lands, appropriate authorizations need to be executed to preserve their function. Where necessary, additional authorizations need to be executed to expand or provide additional canal capacity as needed.

3) Ditches and canals need to be recognized as important historic and current cultural resources.

4) Ditches and canals need to be preserved, enhanced and improved to benefit man and his environment.

Desired Future Conditions

Millard County desires:

a) Existing ditches be preserved, enhanced and improved to permit the unimpeded flow of water and additional ditches and canals are added to the system as needed.

b) Ditches and canals be recognized as important cultural resources and their function be preserved, enhanced and improved.

Findings, Policies, Goals & Objectives

Finding: Ditches and canals were an important component of settling Millard County and continue to have functional, historic and cultural value.

Finding: Ditches and canals are generally private property rights managed and controlled by individuals or private irrigation companies.

Policy: Millard County supports the continued safe and efficient use and maintenance of ditches and canals in accordance with law and private property rights.

Policy: Ditch and canal use, maintenance and improvements shall be protected in accordance with existing law and best management practices. Consistent with law, safety and efficiency, Millard County supports the unimpeded flow of water in ditches and canals.

Policy: Ditches and canals shall be managed for safety, efficiency and conservation.

Policy: Millard County supports efforts by irrigation companies, water conservancy districts and others to protect, facilitate and improve the efficient supply of water.

Policy: Ditches and canals shall be protected, used and managed in compliance with law.

Policy: Private ditches and canals may be used for flood control when the need exists.

Finding: U.C.A. 73-5-7 authorizes the State Engineer to inspect canals and ditches and order necessary repairs to protect public safety.

Finding & Policy: The State Engineer is required to inventory all open, human made water conveyance systems prior to July 1, 2017. The State Engineer's inventory is incorporated by reference.

References

http://ilovehistory.utah.gov/topics/water/irrigation.html, September, 2016

Jeff Gittins, http://utahwaterrights.blogspot.com/2011/04/does-easement-for-ditch-include-right.html, September 8, 2016

2.5.3.2 Rivers & Streams

Millard County is traversed by numerous small rivers, streams and tributaries, some of which eventually flow into Sevier Lake and the Great Salt Lake.

The Sevier River flows from through Millard County and has its origins in the Dixie National Forest near Panguitch Lake and near the Kane County / Garfield County line. The Beaver River is an ephemeral tributary in Millard County that feeds into the Sevier River. Many minor tributaries also augment the Sevier River's flow.

The Sevier River, the Beaver River, and their tributaries are fed from mountain snowmelt and runoff, often from hundreds of miles away. Additionally, they receive major flow from annual late summer thundershowers. Rivers and streams make up a very small percentage of the land base but are influenced by conditions in their much larger watersheds. There are no known pollution point sources that are discharging directly into Millard County's rivers and streams. Pollution in Millard County is primarily erosional sediments and other conditions resulting from insufficient or undesirable vegetative ground cover. Discharge from human developments is controlled by:
a) implementation of stormwater regulations applied to municipalities and communities or
b) implementation of best management practices on sparsely placed developed uses of federal lands.

Need for Management Change

1) More aggressive vegetative management needs to be implemented throughout the entire area encompassed by the County's watersheds to improve Millard County's rivers and streams and in their associated watersheds to optimize and protect water resources.

2) Land managers need to be consistent with Millard County's plans, programs and policies for resources impacting rivers and streams, including but not limited to actions for vegetation, water quality, pinyon/juniper reduction, fish & wildlife, livestock grazing, special status species, and soil resources.

3) Wild, scenic and recreational river evaluations and designations need to be consistent with Millard County's criteria, plans, programs and policies.

4) Increased access needs to be provided to rivers and streams on public lands, including but not limited to access for law enforcement and emergency medical services, solid waste collection services, human waste collection services, recreation, and for the general public.

5) Impaired waters in the Sevier River drainage need to be reclassified to include only those reaches and tributaries with native targeted fish populations and conditions suitable for current designations.

6) Class II and Class III pinyon/juniper woodlands need to be replaced with desirable vegetative communities in the watersheds to reduce erosion and impacts to the County's rivers and streams.

7) Additional structural (dams, reservoirs, impoundments, etc.) and non-structural improvements need to be constructed to improve the efficiency of Millard County's rivers and streams.

8) Transplantation of beavers needs to be limited to areas approved by the Millard County Commission.

9) Undesirable vegetation and noxious weeds need to be eradicated from all of Millard County's public land rivers and streams and their associated riparian zones.

Desired Future Conditions

a) The beneficial use of Millard County's rivers and streams be maximized through protection and development of water quantity and quality and through more aggressive vegetative management in watersheds and other areas impacting rivers and streams.

b) Land managers are consistent with Millard County's plans, programs and policies for resources impacting rivers and streams, including but not limited to actions for vegetation, water quality, pinyon/juniper reduction, fish & wildlife, livestock grazing, special status species, and soil resources to the maximum extent allowed by law.

c) Wild, scenic and recreational river evaluations and designations are consistent with Millard County's criteria, plans, programs and policies.

d) Increased access for law enforcement and emergency medical services, solid waste collection services, human waste collection services, recreation, and the general public is provided to Millard County's rivers and streams, especially on public lands.

e) Impaired waters in the Sevier River watershed are reclassified to include only those tributaries with native targeted fish populations and conditions suitable current designations.

f) Class II and Class III pinyon/juniper woodlands are reduced by 2.5% on a rolling 10 year average and replaced with desirable vegetative communities in Millard County and in the upstream watersheds to reduce erosion and impacts to the County's rivers and streams.

g) Additional structural (dams, reservoirs, impoundments, etc.) and non-structural improvements are constructed to improve the efficiency of Millard County's rivers and streams.

h) Transplantation of beavers are limited to areas approved by the Millard County Commission.

i) Undesirable vegetation and noxious weeds are eradicated from all of Millard County's public land rivers and streams and their associated riparian zones.

Findings, Policies, Goals & Objectives

Finding & Policy: Millard County's water resources are downstream facilities that are significantly impacted by upstream activities. Land managers in outside of Millard County whose upstream activities affect Millard County's waters shall include impacts to Millard County in cumulative analysis.

Finding: Millard County's rivers and streams are important natural resources and are a vital component of the County's health, safety, welfare, custom, culture, heritage, community viability and socio-economic stability.

Policy, Goal & Objective: Land managers shall recognize Millard County's jurisdictional role

over rivers and streams and shall comply with the County's plans, programs and policies to the maximum extent allowed by law.

Policy & Implementation Action: The beneficial use of Millard County's rivers and streams shall be maximized through protection and development of water quantity and quality and through more aggressive vegetative management in the County's and upstream watersheds and other areas impacting rivers and streams.

Policy: Land managers shall be consistent with Millard County's plans, programs and policies for resources impacting rivers and streams to the maximum extent allowed by law, including but not limited to actions for vegetation, water quality, pinyon/juniper reduction, fish & wildlife, livestock grazing, special status species, and soil resources.

Policy: Wild, scenic and recreational river evaluations and designations shall be consistent with Millard County's criteria, plans, programs and policies.

Policy, Goal & Objective: Increased access for law enforcement, emergency medical services, solid waste collection services, human waste collection services, recreation, and the general public shall be developed for Millard County's rivers and streams, especially on public lands.

Policy & Objective: Impaired waters in the Sevier River watershed will be appropriately reclassified to include only those tributaries with native targeted fish populations and conditions suitable for designated uses at the earliest possible date.

Policy, Goal & Objective: Class II and Class III pinyon/juniper woodlands shall be reduced by 2.5% on a rolling 10 year average and replaced with desirable vegetative communities to reduce erosion and impacts to the County's rivers and streams. This includes areas outside the County that are part of upstream watersheds, consistent with local governments' plans, programs and policies for those particular areas.

Policy, Goal & Objective: Additional structural (dams, reservoirs, impoundments, etc.) and non-structural improvements shall be constructed to improve the efficiency of Millard County's rivers and streams.

Policy: Transplantation of beavers is limited to areas approved by the Millard County Commission.

Policy, Goal & Objective: Undesirable vegetation and noxious weeds shall be eradicated from all of Millard County's public land rivers and streams and their associated riparian zones. Land managers shall reduce undesirable vegetation and noxious weeds within 100 feet of Millard

County's live rivers and streams by 2.5% based on a rolling 5 year average.

2.5.3.3 Flood Plains & River Terraces

Introduction

A floodplain or flood plain is an area of land adjacent to a stream or river that stretches from the banks of its primary channel to the topographic elevation marking the historic high water line and encompasses an area that experiences flooding during periods of high discharge. It includes the floodway, which consists of the stream channel and adjacent areas that actively carry flood flows downstream as well as the flood fringe. Floodplains are overflow areas which are inundated by flooding, but which do not necessarily experience a strong current. Flood plains are made by river meanders eroding sideways as they travels downstream. When a river breaks its banks and floods, it leaves behind layers of material called alluvium. These layers gradually build up to create the floor of the flood plain. Floodplains generally contain unconsolidated sediments comprised of sand, gravel, loam, silt, and/or clay, often extending below the bed of the stream. These accumulations often create aquifers, and the water drawn from them is usually of a higher quality when compared to the water in the river.

Geologically ancient floodplains are often represented in the landscape by older deposits known as river terraces. These terraces are old floodplains that remain relatively high above the present floodplain and indicate former courses of a stream. In simple terms, a floodplain is an area near a river or a stream which floods during high water, and river terraces are benches or steps that extend along the side of a valley and represents a former level of the valley floor.

The floodplain during its formation is marked by meandering streams, oxbows, wetlands or small pools and is occasionally completely covered by water. When the drainage system has ceased to act or is entirely diverted for any reason, the floodplain may become a level area of great fertility, similar in appearance to the floor of an old lake. The floodplain differs, however, because it is not altogether flat. It has a gentle slope downstream, and often, for a distance, from its exterior to its center.

Floodplains are a natural place for a river to dissipate its energy. Meanders form over the floodplain to slow down the flow of water, and when the channel is at capacity water spills over the floodplain where it is temporarily stored. In terms of flood management the upper part of the floodplain (piedmont zone) is the area where natural flood water control begins. Channelization in this zone may increase velocities and have significant impact on downstream flooding.

Floodplains can support particularly rich ecosystems (known as riparian zones), both in quantity and diversity. A floodplain can contain more than100 times as many species as a river. Wetting of the floodplain soil releases an immediate surge of nutrients, including those left over from the last flood and those that result from the rapid decomposition of organic matter accumulated in the floodplain. Microscopic organisms thrive, and larger species enter a rapid breeding cycle. Opportunistic feeders (particularly birds) move in to take advantage. The production of nutrients peaks and falls quickly; however the surge of new growth endures for some time. This makes floodplains particularly valuable for wildlife and agriculture.

Current Setting

Historically, towns in rural Utah have been built in close proximity to rivers and their floodplains, where water was readily available for irrigation and landforms were conducive to agriculture. Millard County is no exception. Communities in the County have been located near rivers. Early on, pioneers recognized the problems associated with locating homes and structures too close to flood prone rivers, but in recent years an increased desire for recreational homes and riverfront property has resulted in added pressure to make floodplains available for development.

In cooperation with local government, the Federal Emergency Management Agency (FEMA) manages development in flood prone areas through the National Flood Insurance Program (NFIP). The program typically focuses on delineation of the 100-year flood zone, also known as the Special Flood Hazard Area. Where a detailed study of a waterway has been done, the 100-year floodplain will also include the floodway, the critical portion of the floodplain which includes the stream channel and any adjacent areas that must be kept free of encroachments that might block flood flows or restrict storage of flood waters.

In order for flood-prone property to qualify for government-subsidized insurance, a local community must adopt an ordinance that protects the floodway and requires that new residential structures built in Special Flood Hazard Areas be elevated to at least the level of the 100-year flood. Commercial structures can be elevated or flood proofed to or above this level. In some areas without detailed study information, structures may be required to be elevated to at least two feet above the surrounding grade. Many State and local governments have, in addition, adopted local floodplain construction regulations which are more restrictive than those mandated by the NFIP.

Communities in Millard County generally participate with FEMA in managing floodplains and often adopt more stringent requirements for human development in the floodplain. However, maps are not always accurate and alterations of the watershed upstream of the point in question can potentially affect the ability of the watershed to handle water, and thus potentially affects the levels of the periodic floods. But the maps are rarely revisited, and are frequently ineffective at accurately predicting areas of flooding or flood levels. Notwithstanding, developments in

floodplains and on river terraces on private lands are being adequately managed through local planning and zoning ordinances and local building codes.

Impacts to floodplains and river terraces on developed state and federal lands are similar to controls used in community and private settings. Best management practices are employed to mitigate any detrimental effects, so limited human developments associated with authorized multiple-use activities have little to no effect on floodplains and river terraces.

Large expanses of undeveloped federal land in Millard County are not afforded similar protection. Passive land management, conversion of historical vegetative communities to Class II and Class III conifer woodlands, increased bare ground, altered fire regimes, and other factors have resulted in modified watersheds and degraded upland conditions. Some estimates indicated uplands comprise as much as 95% of the federal lands not occupied by water bodies in Millard County. Degraded conditions in dominant uplands, largely as a result of encroaching conifers, have resulted in increased surface flows. Sparsely vegetated sandy soils have responded with increased erosion, downcutting of primary channels and steepening of banks. These unstable conditions are characteristic of formative floodplains that have not reached equilibrium.

Impacts associated with upland induced, unstable floodplains are exacerbated by natural hydrologic cycles typical of the Great Basin and Millard County. Flooding generally occurs from two distinct events: spring runoff from melting snowpacks and intense summer thundershowers. While either event can trigger flooding, the dynamics are different. Snowmelt is a relatively predictable occurrence dependent on the amounts of winter snowpack and the timing of rising spring temperatures. Large accumulations of snowpack melting in the spring contributes to some localized flooding, usually in the larger drainage basins. In contrast, summer cloudbursts cause site specific and localized flooding events in otherwise dry washes and canyons. Both kinds of events can have profound impacts on the floodplains and hydrologic systems. But the thunderstorms often occur in soils that are more susceptible to erosion and create incised channels without functioning floodplains.

Wildland and prescribed fire are secondary causes of flooding. When vegetation is burned, soils are exposed to erosion. Debris flows below fire scars is a considerable risk until vegetation is reestablished. Planning for revegetation through seeding and other mitigation efforts after fires are addressed in resources management documents and in agency practices.

For the most part, flooding is a natural process that supports channel maintenance, ecological processes, and riparian vegetation. However, flooding in areas without properly functioning floodplains has the opposite effect as nature tries to reach equilibrium by widening banks and decreasing the hydrologic grade.

Need For Management Change

1) Coordinated, strategic planning is needed to outline a plan of attack to restore uplands, floodplains and vegetation and to improve rangeland health.

2) The role of upland watershed management needs to be recognized and incorporated in floodplain management.

3) Check dams need to be installed to arrest downcutting and to restore natural stream grade.

4) Active management and restoration projects on federal lands need to be implemented to restore vegetation and floodplain function which mimic the natural hydrologic system.

5) Long term hydrologic function needs to be prioritized over short term ground disturbance.

6) Analysis/approval processes for floodplain restoration need to be simplified and authorized as categorical exclusions under NEPA. Corps of Engineers and other federal agency involvement needs to be reduced to the minimum required under law.

Desired Future Conditions

Millard County desires:

a) Coordinated, strategic planning is implemented to outline a plan of attack to restore uplands, floodplains and vegetation and to improve rangeland health.

b) The role of upland watershed management is recognized and incorporated in floodplain management.

c) Check dams and restoration projects are implemented to arrest downcutting and to restore natural stream grade and sinuosity.

d) Active management and restoration projects on federal lands are implemented to restore vegetation and floodplain function which mimic the natural hydrologic system.

e) Long term hydrologic function is prioritized over short term ground disturbance.

f) Analysis/approval processes for floodplain restoration are simplified and authorized as categorical exclusions under NEPA. Corps of Engineers and other federal agency involvement are eliminated or reduced to the minimum required under law.

Findings, Policies, Goals & Objectives

Policy: Long term hydrologic function is prioritized over short term ground disturbance.

Finding: Upland vegetative conditions may have a significant impact on floodplain function in any given watershed.

Finding & Policy: A coordinated, strategic plan recognizing the condition of Millard County's floodplains, especially on undeveloped federal land, does not exist. Land managers shall include a coordinated floodplain restoration and improvement program in agency resource management plans during the next regular planning cycle.

Finding: Structural and non-structural deficiencies in floodplains, river terraces and associated watersheds in Millard County, especially on undeveloped federal lands and threaten:
a) resources and resource uses,
b) enjoyment of resources by current and future generations,
c) rangeland health,
d) water quality, and
e) the County's custom, culture, heritage, and socio-economic stability.

Policy: Land managers, especially of undeveloped federal lands, shall implement an active program of structural and non-structural improvements to deficient floodplains, river terraces and associated watersheds - including uplands - to protect:
a) resources and resource uses,
b) enjoyment of resources by current and future generations,
c) rangeland health,
d) water quality, and
e) the County's custom, culture, heritage, and socio-economic stability.

Policy, Goal & Objective: Analysis/approval processes for floodplain restoration shall be simplified to the maximum extent allowed by law and shall be authorized as categorical exclusions under NEPA wherever possible. Corps of Engineers and other federal agency involvement shall be eliminated or reduced to the minimum required under law.

Goal & Objective: Active floodplain management and restoration, especially on undeveloped federal lands, are implemented to restore vegetation and floodplain function which mimic natural hydrologic conditions on 2.5% of the non-functioning floodplains prior to 2040.

Policy: Land managers, especially of undeveloped federal lands, shall restore to properly functioning condition at least 0.1% or 1 mile of non-functioning floodplains per year. Floodplain

restoration shall include structural and non-structural topographic and vegetative improvements which mimic natural, stable conditions. Check dams and restoration projects that arrest downcutting and/or restore natural grade, cross section and sinuosity shall be augmented with appropriate native and non-native vegetation.

Finding & Policy: Land managers in Millard County have little if any control over climate cycle change or impacts attendant thereto. Land managers shall prioritize management actions on activities that improve the productivity of resources and resource uses under their management control. Restoration of invasive conifers to desirable vegetative communities, maintenance of seedings, vegetation projects to reduce bare ground, appropriate use of prescribed fire and response to wildfire, structural projects to restore floodplains to historical topographic and ecological conditions and other pro-active solutions shall be implemented prior to prescriptive actions associated with climate cycle change.

Policy, Goal & Objective: Based on a 10 year rolling average and consistent with ecologic site descriptions, land managers shall restore 2.5% of Class II and Class III pinyon/juniper woodlands to desirable sagebrush/grassland vegetation communities.

Finding: For some agencies, as much as 95% of the land is classified as upland. Failure to restore uplands to desirable vegetative conditions prevents reasonable restoration of non-functioning floodplains in the associated watershed.

Policy: Where land managers are unable to restore 0.1% or 1 mile of non-functioning floodplain due to associated substandard upland conditions, floodplain restoration may postponed for up to three years.

References

https://en.wikipedia.org/wiki/Floodplain, February 2017

2.5.3.4 Dry Washes & Ephemeral Streams

For this Resource Management Plan, dry washes and ephemeral streams are defined as: *a watercourse or portion of a watercourse which flows briefly in direct response to precipitation in the immediate vicinity, and whose channel is dry for significant periods of time throughout the year*. Riparian areas are defined as: *the strip of vegetation along an ephemeral, intermittent, or perennial stream, which is of distinct composition and density from the surrounding uplands*.

Dry washes and ephemeral streams make up a significant portion of the hydrologic system in Millard County and the arid southwest. According to the U.S. Geological Survey National Hydrography Dataset, ephemeral and intermittent (a stream where portions flow continuously only at certain times of the year) streams make up approximately 79% of all streams in Utah and over 81% in the arid and semi-arid Southwest. (Arizona, New Mexico, Nevada, Utah, Colorado and California). They are often the hydrologic sources and upper-most headwaters for major tributaries and perennial streams in the Southwest.

Ephemeral streams and dry washes provide essentially the same ecological and hydrological functions as perennial streams by moving water, nutrients, and sediment throughout the watershed. When functioning properly, these dry streams provide landscape hydrologic connections; stream energy dissipation during high-water flows to reduce erosion and improve water quality; surface and subsurface water storage and exchange; ground-water recharge and discharge; sediment transport, storage, and deposition to aid in floodplain maintenance and development; nutrient storage and cycling; wildlife habitat and migration corridors; support for vegetation communities to help stabilize stream banks and provide wildlife services; and water supply and water-quality filtering. In varying degrees, they provide a wide array of ecological functions including forage, cover, nesting, and movement corridors for wildlife. Depending on the frequency and availability of water, vegetation and wildlife abundance and diversity in and near them may be proportionally higher than in the surrounding uplands. In other locations streambank conditions may be nearly identical to adjacent uplands. Consideration of the site specific and cumulative influence of these streams is critical in watershed-based assessments and land management decisions to maintain overall watershed health and water quality.

Dry washes and ephemeral streams are connected to perennial stream systems and other "waters of the United States" (WOTUS) as protected under the Clean Water Act (CWA). The CWA was established to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Its goal is to prevent pollution of waters of the U.S., and to ensure that citizens have safe, clean water. In recent years, there have been numerous discussions as to whether dry washes and ephemeral streams are "waters of the United States" under the Act, and if the Act applies to those streams. A broad reading of the definition of WOTUS would include any land on which precipitation fell and that precipitation eventually reached a stream or waterbody. Under such a reading there would be no ground anywhere in the United States and the entire land surface would be a "water of the U.S."

Dry washes and ephemeral streams are the defining characteristic of many public land watersheds in Millard County, especially outside high precipitation forests and densely vegetated lands. Individual washes and ephemeral stream segments are not generally examined in isolation for landscape level planning purposes. However, site specific projects often rely on the impacts associated with individual watercourses.

Dry washes and ephemeral streams are found across the Earth's land surface in arid and semi-arid regions that are commonly referred to as "drylands." Approximately one-third of the Earth's land surface is classified as arid or semi-arid, including significant portions of Millard County. These lands are characterized by low and highly variable annual precipitation, where evapotranspiration exceeds precipitation. Riparian ecosystems associate with dry washes and ephemeral streams occupy a very small portion of the landscape, yet they may exert substantial influence on hydrologic, geomorphic, and ecological processes of a watershed.

Dry washes and ephemeral streams are unique in that they lack permanent flow except in response to rainfall events but may perform the same critical hydrologic functions as perennial streams. Although arid and semi-arid region streams perform the same functions as perennial streams, their hydrology and sediment transport characteristics cannot be reliably predicted. This is due to a much higher degree of spatial and temporal variability in hydrologic processes and also in the resulting erosion and sedimentation processes than are higher than near perennial streams. Desert environments typically produce more runoff and erosion per unit area than in temperate regions for a given intensity of rainfall due to sparse vegetation cover and poorly developed soils with little organic matter. The variability of flood magnitudes is also much greater for dry washes and ephemeral stream channels as compared to that of perennial stream systems.

Floods in dry washes and ephemeral streams often occur as flash floods, single-peak events, multiple-peak events and seasonal floods. The highly variable stream flow in ephemeral and dry washes most often occurs as a flash flood, lasting only minutes or hours. Flash floods may occur any time of the year in response to a short-duration high-intensity precipitation event, and after the watershed has received enough precipitation to generate runoff.

Water flowing in normally dry stream channels is subject to two key forces:
(1) gravity that moves the water downslope and
(2) friction between the water and channel boundaries that resists the downslope movement.

These two forces determine, to a large degree, the ability of the water to modify the channel geometry and transport debris. In addition, channel roughness, slope, and depth determine the velocity of the flowing water. Channel slopes in Millard County are often large, so when flows do occur they have high velocities and consequently significant energy and erosive power. Dissipation of energy in channels can occur due to vegetation, curvature (stream sinuosity), obstructions (rocks, debris, dams), and the size, character and configuration of material in the bed and banks.

As noted previously, although ephemeral streams do not flow at all times, they still perform the major functions of a stream: the transportation of water, nutrients, and sediment. However,

unlike perennial streams that continuously move sediment through the watershed, sediment movement in non-perennial stream channels generally occurs as a pulse in response to runoff generated by the short duration, high intensity thunderstorms that are typical of the area. These thunderstorms often result in flash floods and yield rapidly rising runoff. Normally dry channels tend to have deep sediments that are mostly sands and gravels, with only widely scattered shrubs that are resistant to violent flood waters. The unconsolidated sediments can be easily mobilized during flows, unlike the clay bedded, vegetated or armored channels in perennial streams. These deep sediments cause large bed and bank losses in the downstream direction, resulting in reduced flow volume and velocity over the length of the stream, and subsequent deposition of bed load materials and coarser suspended sediments. In simple terms, dry washes and ephemeral streams are usually erosive and unstable.

Because the small, uppermost channels of a drainage network are important in determining the amount of sediment transported downstream during storm events, they influence sedimentation rates in downstream channels. Increased sediment load can have negative effects on channel stability, fish, invertebrates, and overall stream productivity.

Some desert washes are easily recognizable when their dense corridor of vegetation is in strongly contrasted with more sparsely vegetated uplands. Where vegetative communities exist along dry washes and ephemeral streams, they provide structural elements of food, cover, nesting and breeding habitat, and movement/migration corridors for wildlife that are not as available in adjacent uplands. Functional services of these communities include moderating soil and air temperatures, stabilizing channel banks and interfluves, seed banking and trapping of silt and fine sediment favorable to the establishment of diverse floral and faunal species, and dissipating stream energy which aids in flood management.

Generally in Millard County, dry washes and ephemeral streams do not exhibit dominant riparian vegetation characteristics. Often there is little differentiation between upland vegetation and bank vegetation. Structural, biologic and ecological functions do not exist; and banks and streambeds are prone to erosion.

Vegetation in arid and semi-arid regions is largely controlled by the availability of water, with flood disturbance and soil conditions further shaping plant distribution patterns. Depending on attributes of the particular dry watercourse, the highest density of vegetation may occur along the stream bank or within the channel bed. By providing channel and stream bank roughness through standing or downed material, vegetation can influence flow velocities, flow depths, bank and floodplain erosion, and sediment transport and deposition, and can be a major factor contributing both to channel stability and to channel instability.

Vegetation along the stream bank stabilizes the soil through the reinforcing nature of their roots, and prevents erosion. In dry washes and ephemeral stream channels, vegetation may establish on sand bars, and subsequently initiate the formation of various depositional features such as small current shadows, bars, benches, ridges, or islands. Spatially extensive assemblages of any plant species have the potential to alter geomorphology and geomorphic processes through disturbance of sedimentary deposits, alteration of nutrient or fire cycles, and patterns of succession.

The goal of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters, and to prevent pollution of those waters. Historically, major desert washes have sometimes been considered to be jurisdictional under the CWA. However, as a result of Supreme Court decisions, the definition of the Nation's waters or jurisdictional waters of the United States under the CWA has required additional clarification, specifically with respect to tributaries that are "not relatively permanent" (i.e. dry washes and ephemeral streams). Recent guidance from the U.S. EPA and Army Corps of Engineers requires that a significant nexus exist between a dry washes or ephemeral stream and a traditional navigable water of the United States for the dry washes or ephemeral streams to be jurisdictional under the CWA. This significant nexus evaluation must consider flow characteristics and functions of the tributary to determine if it has a significant effect on the chemical, physical, and biological integrity of downstream traditional navigable waters.

Need for Management Change

1) Coordinated, strategic planning is needed to maintain dry washes and ephemeral streams to improve rangeland health.

2) Structural and non-structural improvements may need to be made to degraded dry washes and ephemeral stream.

3) The role of upland watershed management needs to be recognized and incorporated in dry wash and ephemeral stream restoration.

4) Structural and non-structural improvements need to be made to degraded uplands to
a) replace Class II and Class III pinyon/juniper woodlands with desirable historic vegetative communities,
b) reduce runoff and
c) reduce the amount of bare ground.

5) Check dams need to be installed to arrest downcutting and to restore natural stream grade in dry washes and ephemeral streams.

6) Active management and restoration projects on federal lands need to be implemented to restore grade control, sinuosity and vegetation which mimic the natural hydrologic system in dry washes and ephemeral streams.

7) Long term hydrologic function needs to be prioritized over short term ground disturbance.

8) Analysis/approval processes for dry wash and ephemeral stream restoration need to be simplified and authorized as categorical exclusions under NEPA.

9) Corps of Engineers and other federal agency involvement needs to be reduced to the minimum required under law. Dry washes and ephemeral streams need to be recognized as outside Corps of Engineers jurisdiction and exempted from waters of the U.S. designation.

Desired Future Conditions

Millard County desires:

a) Dry washes and ephemeral streams, especially on undeveloped federal lands, are restored to properly functioning conditions.

b) Coordinated, strategic planning is implemented to restore uplands, vegetation and to improve rangeland health associated with dry washes and ephemeral streams.

c) Structural and non-structural improvements are made to degraded watercourses, dry washes and ephemeral streams.

d) The role of upland watershed management is recognized and incorporated in dry wash and ephemeral stream management and restoration.

e) Structural and non-structural improvements are made to degraded uplands to
    a. replace Class II and Class III pinyon/juniper woodlands with desirable historic vegetative communities,
    b. reduce runoff and
    c. reduce the amount of bare ground.

f) Check dams and restoration projects are implemented to arrest downcutting and to restore natural grade, vegetation, cross section, and sinuosity in dry washes and ephemeral streams.

g) Active management and restoration projects on federal lands are implemented to restore sinuosity, vegetation and floodplain function which mimic the natural hydrologic system.

h) Long term hydrologic function is prioritized over short term ground disturbance.

i) Analysis/approval processes for dry wash and ephemeral stream restoration are simplified and authorized as categorical exclusions under NEPA. Corps of Engineers and other federal agency involvement are eliminated or reduced to the minimum required under law. Dry washes and ephemeral streams are exempted from waters of the U.S. designation.

j) Land managers restore to properly functioning condition at least 1% of non-functioning dry washes and ephemeral streams per year.

Findings, Policies, Goals & Objectives

Policy: Long term hydrologic function is prioritized over short term ground disturbance.

Finding: Dry washes and ephemeral streams, especially on undeveloped federal lands, need active structural and non-structural modifications to restore properly functioning and desirable conditions.

Finding: Upland vegetative conditions have a significant impact on dry wash and ephemeral stream function in any given watershed.

Finding & Policy: A coordinated, strategic plan recognizing the condition of Millard County's dry washes and ephemeral streams, especially on undeveloped federal land, does not exist. Land managers shall include a coordinated dry wash and ephemeral stream restoration and improvement program in agency resource management plans during the next regular planning cycle or prior to January 2021, whichever occurs first.

Finding: Structural and non-structural deficiencies in dry washes, ephemeral streams and associated watersheds in Millard County, especially on undeveloped federal lands and threaten:
a) resources and resource uses,
b) enjoyment of resources by current and future generations,
c) rangeland health,
d) water quality, and
e) the County's custom, culture, heritage, and socio-economic stability.

Policy: Land managers, especially of undeveloped federal lands, shall implement an active program of structural and non-structural improvements to deficient dry washes, ephemeral streams and associated watersheds - including uplands - to protect:
a) resources and resource uses,

b) enjoyment of resources by current and future generations,
c) rangeland health,
d) water quality, and
e) the County's custom, culture, heritage, and socio-economic stability.

Policy, Goal & Objective: Analysis/approval processes for dry wash and ephemeral stream restoration shall be simplified to the maximum extent allowed by law and shall be authorized as categorical exclusions under NEPA wherever possible. Corps of Engineers and other federal agency involvement shall be eliminated or reduced to the minimum required under law. Dry washes and ephemeral streams are exempted from waters of the U.S. designation.

Goal & Objective: Active dry wash and ephemeral stream management and restoration, especially on undeveloped federal lands, are implemented to restore sinuosity, vegetation and floodplain function which mimic natural hydrologic conditions on 2.5% of the non-functioning floodplains prior to 2040.

Policy: Land managers, especially of undeveloped federal lands, shall restore to properly functioning condition at least 1% of non-functioning dry washes and ephemeral streams per year. Dry wash and ephemeral stream restoration shall include structural and non-structural topographic and vegetative improvements which mimic natural, stable conditions. Check dams and restoration projects that arrest downcutting and/or restore natural grade, cross section and sinuosity shall be augmented with appropriate native and non-native vegetation.

Finding & Policy: Land managers in Millard County have little if any control over climate cycle change or impacts attendant thereto. Land managers shall prioritize management actions on activities that improve the productivity of resources and resource uses under their management control. Restoration of invasive conifers to desirable vegetative communities, maintenance of seedings, vegetation projects to reduce bare ground, appropriate use of prescribed fire and response to wildfire, structural projects to restore dry washes and ephemeral streams to historical topographic and ecological conditions and other pro-active solutions shall be implemented prior to prescriptive actions associated with climate cycle change.

Policy, Goal & Objective: Based on a 10 year rolling average and consistent with ecologic site descriptions, land managers shall restore 2.5% of Class II and Class III pinyon/juniper woodlands to desirable sagebrush/grassland vegetation communities.

Finding: For some agencies, as much as 95% of the land is classified as upland. Failure to restore uplands to desirable vegetative conditions prevents reasonable restoration of non-functioning dry washes and ephemeral streams in the associated watershed.

Policy: Where land managers are unable to restore 1% of non-functioning floodplain due to associated substandard upland conditions, dry wash and ephemeral stream restoration may postponed for up to three years.

Finding & Policy: All lands receiving precipitation are ecologically and hydrologically connected to downstream waters. However, not all lands have a significant effect on the chemical, physical, and biological integrity of those waters. Dry washes and ephemeral streams are primarily dry lands similar to uplands and do not qualify as watercourses having a significant effect on the chemical, physical, and biological integrity of waters of the U.S.

Finding & Policy: Ecologically responsible land management attempts to meet economic and social objectives while maintaining environmental health. NEPA analysis requires cumulative analysis, but individual site specific impacts may not have statistical or scientific significance. Dry washes and ephemeral streams that:
a) provide less than 0.1 % of the end resource's physical, biological or chemical components or
b) are in properly functioning condition are deemed not to impact the end resource.

References

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2.5.4 Groundwater

Introduction

Groundwater is the water found underground in cracks and spaces in soil, sand and rock. It is stored in and moves slowly through geologic formations called aquifers. Aquifers are typically made up of gravel, sand, sandstone, or fractured rock. Water moves through these materials in the connected spaces that make them permeable. The speed at which groundwater flows depends on the size of the spaces in the soil or rock and how well the spaces are connected.

Groundwater can be found almost everywhere. The depth of groundwater below the surface is known as the water table and may rise or fall depending on many natural and human induced factors. Groundwater supplies are recharged by rain and snow melt that infiltrates into the earth's surface.

Water in aquifers is brought to the surface naturally through a spring or can be discharged into lakes and streams. Groundwater can also be extracted through wells drilled into the aquifer.

Some wells, called artesian wells, do not need a pump because of natural pressures that force the water up and out of the well.

In areas where material above an aquifer is permeable, pollutants deposited on the surface can readily sink into groundwater supplies, making them unfit for specific uses, including drinking water. Groundwater can be polluted by landfills, septic tanks, leaky underground gas tanks, and from overuse of fertilizers and pesticides.

Current Setting

Groundwater is the County's principal reserve of fresh water and represents much of its potential future water supply. Groundwater on federal lands is a major contributor to flow in many streams and rivers and has a strong influence on the health and diversity of plant and animal species in forests, rangelands, grasslands, riparian areas, lakes, wetlands, and springs. It also provides drinking water for all of the public water systems and is connected to many of the private water systems in Millard County.

Awareness of groundwater's importance, the need for safe drinking water and requirements to maintain healthy ecosystems are increasing. Many of the concerns about groundwater resources on private and public lands involve questions regarding dependability of long term supply, depletion of groundwater storage, reductions in streamflow, potential loss of groundwater-dependent ecosystems, and changes in groundwater quality. The effects human activities common to more populated areas, land subsidence and saltwater intrusion are not applicable to Millard County. Contamination from landfills, septic tanks, leaky underground gas tanks, and from overuse of fertilizers and pesticides is prevented and controlled through various federal, state and local regulatory mechanisms.

Groundwater and surface water are interconnected and interdependent in almost all ecosystems. Groundwater plays a significant role in sustaining the flow, chemistry, and temperature of streams, lakes, springs, wetlands, and other hydrologic systems, while surface waters provide valuable recharge to groundwater resources. Groundwater has a major influence on rock weathering, streambank erosion, and the progression of stream channels. In steep terrain, it governs slope stability; in flat terrain, it limits soil compaction and land subsidence. Pumping of groundwater can reduce river flows, lower lake levels, and reduce or eliminate discharges to wetlands and springs. Pumping can also influence the sustainability of drinking-water supplies and maintenance of critical groundwater-dependent habitats.

Groundwater wells in the County are utilized primarily for drinking water and livestock watering with a limited amount also used for irrigation. The low amount of oil and gas development in Millard County has not affected groundwater development. All wells must be drilled in accordance with the standards of the Utah State Engineer's Office and implement best

management practices. Groundwater quality has been identified as a major concern for aquifers and recharge zones underlying the County.

The Lincoln County Conservation, Recreation, and Development Act of 2004 established guidelines for groundwater development in aquifers shared by Utah and Nevada. This act required extensive hydrologic studies, the most significant of which was the Basin and Range Carbonate Aquifer System Study (BARCASS). To guide future allocative decisions, the study was required to, among other things, "(B) determine the approximate volume of water stored in aquifers in those areas; (C) determine the discharge and recharge characteristics of each aquifer system; [and] (D) determine the hydrogeologic and other controls that govern the discharge and recharge of each aquifer system. The provision also required that:
Prior to any trans-basin diversion from ground-water basins located within both the State of Nevada and the State of Utah, the State of Nevada and the State of Utah shall reach an agreement regarding the division of water resources of those interstate ground-water flow system(s) from which water will be diverted and used by the project. The agreement shall allow for the maximum sustainable beneficial use of the water resources and protect existing water rights.

The issues at the heart of groundwater development are factual in nature: How much water can be withdrawn without unreasonably impairing existing water users? How much water can be withdrawn without unreasonably impairing natural functions such as springs or adversely affecting vegetation? How will withdrawals affect groundwater flow between hydrographic areas? The other major question involves a policy choice-where to draw the line between reasonable and unreasonable interference with natural or developed water uses and how large a margin of safety to require in light of obvious uncertainties?

Potential drawdown of groundwater resources is managed by the Utah State Engineer. The Sevier River, Pahvant Valley, and Beaver watersheds in the eastern portion of the County are closed to all new appropriations. All new groundwater development in these areas is based on the acquisition and changing of existing valid water rights from surface (including direct flow and reservoir storage) and underground sources. Groundwater resources in the Great Salt Lake drainage basin are still open to appropriation. There are areas between watersheds where appropriation is still open with restrictions. Some of these restricted areas have been contested and the subject of litigation since 2004 to the present. These hydrologic areas defined by the Utah Division of Water Rights include Areas 18, 19, 14, 68, 69, and 71.

Area 18: Ranging from western Tooele County through western Juab County and into northwestern Millard County (T5S to T25S), this area covers a portion of the Great Salt Lake Desert and several relatively dry valleys. This area is bounded on the north by the Great Salt Lake Desert, on the east by Dugway Valley and the Sevier River drainage, on the west by the Deep Creek Mountains and Nevada, and on the south by Wah Wah and Pine Valleys. The highest point in the area is 12,087 foot Ibapah Peak, while the lowest is the shore of the Great Salt Lake at about 4,225 feet, giving a total relief of about 7,860 feet.

Area 69-- Stretching from south-central Millard County (T17S) into western Beaver County (T29S), this area is composed of two sub-basins, Wah Wah Valley and the area around Sevier Lake. The former covers about 600 square miles, while the latter covers about 850 square miles. The area includes several intermittent streams that flow from the surrounding mountains to the Wah Wah Valley Hardpan (a dry lake bed) or Sevier Lake. It is bounded on the east by the 9,660 foot San Francisco Mountains and the 7,231 foot Cricket Mountains. On the east are the 8,918 foot Wah Wah Mountains and the 9,655 foot House Range. A 6,000 foot pass at the southern end of the area separates Wah Wah Valley from the Escalante Desert, while the northern end opens into the Sevier Desert. A low saddle of about 4,700 feet divides Wah Wah Valley from Sevier Lake. The lowest point in Wah Wah Valley is the Wah Wah Valley Hardpan at 4,600 feet, while Sevier Lake is at an elevation of about 4,500 feet, giving the basin a total relief of about 5,160 feet.

Area 71: Black Rock

This area affects south-central Millard County (T19S). This drainage basin includes the watersheds of Cove Creek and the Beaver River to the Sevier Desert in the north. It is bounded on the west by the 9,660 foot Needle Range and the 7,231 foot Cricket Mountains on the east. and the Black Rock Desert. The northern end opens into the Sevier Desert. The lowest point is where the Beaver River leaves the area at 4,560 feet, giving the basin a total relief of about 5,700 feet.

In Area 71, the State Engineer is appropriating water for Non-consumptive (geothermal, hydro power, etc.) fillings subject to prior rights and 73-3-8. Larger filings for permanent appropriation are being held unapproved pending the acquisition of better information on the available resource. Specific projects could be approved depending on their location and nature, particularly in the case of deep bedrock wells for geothermal purposes. There is active geothermal development in the vicinity of Cove Fort, Clear Lake, and Sulphurdale, but long-term resource data is not available.

The State Engineer is of the opinion that groundwater is available for development in the Snake Valley in Areas 18 and 69. As future water development occurs, water available for future appropriation under new applications will be re-evaluated. In Area 69, the State Engineer will now consider applications for all uses and reasonable amounts. Applications will be considered based on their individual merits in accordance with Section 73-3-8 of the Utah Code. In Area 18 Applicants are allowed to appropriate a limited amount of water up to the amount of water needed for: the irrigation of 136 acres (which is the acreage irrigated by a full pivot with end gun.)

The State Engineer believes there is a limited amount of unappropriated water available in the aquifer system in Areas 14, and 19, and some development has occurred in the south end of the

area. Domestic filings, limited to the requirements of one family, up to 10 head of livestock, and 1/4 acre of irrigation.

Groundwater is a valuable commodity and its use is increasingly important. Federal lands contain substantial groundwater resources, for which stewardship and protection are mandated by various congressional acts. Many other natural resources rely, directly or indirectly, on groundwater and could be damaged or destroyed if that water were depleted or contaminated. Generally, groundwater resources in Millard County are relatively deep and have little impact on surface resources. However, overuse of groundwater may impact streams, wetlands, riparian areas, forest stands, meadows, grasslands, seeps, springs, and livestock and wildlife watering holes on a site specific basis. Reduced water-table levels near the earth's surface can impact biota that depend on groundwater, particularly in riparian and wetland ecosystems.

Groundwater quality is highly variable and is dependent on the formation in which the aquifer is located, potential pollutants and the recharge mechanism. Groundwater quality is classified by the Utah Water Quality Board based primarily on the amount of total dissolved solids (TDS). Lower amounts of TDSs indicate higher water quality. Potential pollution from private lands has been reduced in recent years with greater knowledge, conversion of flood irrigation to sprinkler and added emphasis on groundwater quality. Limited development and pollution sources on federal lands suggests a low risk, except for wildland and prescribed fire which still have the potential to affect groundwater and primary sources of culinary water in the County.

Recharge to the unconsolidated basin-fill deposits containing groundwater is by seepage from streams, unconsumed irrigation water, and distribution systems; infiltration of precipitation; and subsurface inflow from consolidated rocks that surround the aquifer. Recharge varies annually but can be estimated through water budget calculations for most conditions.

Groundwater in Millard County and the streams issuing from the canyons of the Pahvant Range have been of paramount importance in the development of Millard County as they furnish water for domestic use, stock-watering, and irrigation of crops. Beginning with the settlement of Fillmore in 1851, the principal towns of Fillmore, Holden, Meadow and Kanosh and on farms throughout the valley began locating near the base of the mountain range along these streams, water was diverted for irrigation of adjacent cultivated fields, and the remainder of the valley was used principally for pasture. Water for domestic use was obtained originally from streams, but subsequently the several towns constructed pipelines to springs located near the base of the range or in the canyons of the principal streams.

By 1908 there were approximately 50 wells in Pahvant Valley, chiefly in the villages of Holden, Meadow, and Hatton. All of these were dug or drilled to the shallow zone of unconfined water, and were used primarily for stockwatering or domestic purposes. Irrigation had been attempted

from one of these wells, dug 40 feet deep in the Pahvant district about 4 miles west of Holden, but was apparently unsuccessful. Between 1911 and 1914 seven wells were drilled in the eastern part of the Flowell district, which yielded small quantities of water by artesian flow.

The first artesian well to yield water in sufficient quantities for irrigation was drilled in 1915 on the Brigham Tompkinson ranch in the Flowell district. This well, drilled 279 feet deep, is reported to have discharged about 600 gallons a minute through its 7½ inch casing. Following this successful development, twelve additional wells were completed by the end of the year, and by the end of 1922 there were 65 flowing irrigation wells in the Flowell district, chiefly in the northern and eastern parts. In succeeding years the development was extended to the southwest, and by 1931 many additional wells had been completed. Development of groundwater resources has continued until the present with additional growth challenging the aquifer's capacity.

Groundwater recharge during the irrigation season (April to September) is from losses during transmission or as unconsumed irrigation water because most of the flow during this period is diverted for irrigation. Streamflow that occurs during the non-irrigation season is assumed to recharge the groundwater system at a rate of 100 percent because of low evapotranspiration rates and the permeable nature of surface materials. Recharge to the groundwater system from ephemeral streams is considered to be small and present only after periods of greater than average precipitation or intense storms.

Discharges from the groundwater reserves in Millard County come from wells, springs and evaporation. Groundwater discharge from wells in Pahvant Valley is a major component of the groundwater budget. As explained above large-scale groundwater development for irrigation began in 1915, when the first well with a relatively large yield was drilled. Groundwater in most of the Pahvant Valley is used to supplement surface water for irrigation, and wells capable of discharging large quantities of water generally begin use after the spring snowmelt runoff ends. More surface water is available for irrigation when precipitation is greater than average; consequently, pumping from wells decreases.

Discharge from springs, wells and seeps has generally decreased as pumping from wells has increased in order for the groundwater system to approach a new state of equilibrium. Groundwater discharge from unconsolidated basin-fill deposits also occurs by evapotranspiration but these losses are small in comparison to modern development.

Need for Management Change

1) Inventories of the quantity and quality of groundwater on federal land are needed to provide sufficient information to appraise the value and provide appropriate stewardship of these

groundwater resources. Landscape-level planning plays a role in some basins as groundwater aquifers extend across state and county lines. Groundwater management must reflect accurate quantities to ensure sustainable use while preventing over-allocation and harmful drawdowns.

2) Protection and sustainable development of groundwater resources are appropriate components of land and resource management planning for federal lands and need to be included in future planning processes.

3) Land managers need to ensure adequate groundwater resources are available for authorized purposes and to support local communities.

4) Land managers need to prevent or minimize adverse impacts to groundwater resources through appropriate vegetative treatments that optimize forest and rangeland health.

5) Land managers need to comply with federal, state and local requirements for wellhead protection and sole-source aquifer use. Managers also need to ensure all public water systems on their lands comply with applicable groundwater regulations.

6) Land managers need to protect ecological processes and biodiversity of groundwater dependent ecosystems by:

a) maintaining natural patterns of recharge and discharge, and minimizing disruption to groundwater levels that are critical for ecosystems;
b) not polluting or causing significant changes in groundwater quality; and
c) rehabilitating degraded groundwater systems where possible.

7) The Utah Division of Water Rights needs to protect underground aquifers from speculative over-appropriation. Monitoring wells and appropriate pump-tests generating reliable drawdown data must be utilized when granting future groundwater appropriations. Monitoring of irrigation well use in Millard County and confining usage to allocated quantities must be implemented to insure against unsustainable drawdowns.

8) Land managers need to manage groundwater dependent ecosystems under principles of multiple-use and sustained yield, while emphasizing protection and improvement of soil, water and vegetation.

9) Based on site specific characteristics of water, geology, flora and fauna, land managers need to identify, inventory and determine boundaries of groundwater dependent ecosystems as part of land use planning processes.

10) Humans need to be recognized as a subset of groundwater dependent fauna and development of resources for their use needs to be given priority.

11) Artesian groundwater resources need to be carefully managed to accommodate historic uses and potential growth.

Desired Future Conditions

Millard County desires:

a) Groundwater resources are preserved, improved and developed for the use of man while supporting multiple-use and sustained yield principles.

b) Land managers comply with current and future laws and regulations promulgated by federal, state and local entities.

c) Land managers optimize forest and rangeland health and vegetative cover as a means of preserving and protecting groundwater resources.

d) Watersheds that are the source of supply for community and culinary water systems be managed for resistance and resilience to fire.

e) Groundwater resources are managed under the principles of multiple-use and sustained yield, with community and culinary water systems as the highest priority.

f) Groundwater resources are protected through appropriate implementation of best management practices applied to human and multiple-use/sustained yield activities. The Utah Division of Water Rights needs to protect underground aquifers from speculative over-appropriation. Monitoring wells and appropriate pump-tests generating reliable drawdown data must be utilized when granting future groundwater appropriations. Monitoring of irrigation well use in Millard County and confining usage to allocated quantities must be implemented to insure against unsustainable drawdowns.

g) Groundwater resources in the Pahvant Valley are carefully managed to accommodate historic uses and potential growth.

h) Groundwater resources in Millard County remain in the basin of origin for beneficial use to promote socio-economic stability and potential growth.

Findings, Policies, Goals & Objectives

Finding: Protection, enhancement and development of groundwater resources is vital to the health, safety and welfare of residents and visitors of Millard County.

Finding: Under the concept of climate change, scientists expect more severe storms, larger wildfires and an increase in invasive species. Climate cycle change has shown some of this to occur in the recent past. Different plant species dominate during these fluctuations due to the presence or absence of precipitation. Permanent climate change has yet to be proven. Land managers must counteract these fluctuations with increased active management and restoration of desirable plant communities to protect groundwater resources.

Goal: Maintain, improve and develop groundwater resources, while complying with applicable federal, state and local water quality standards; improve water quality where practical.

Policy: Millard County will cooperate and coordinate with federal, state and local land managers to implement active management and vegetative restoration projects to preserve and improve groundwater resources.

Goal: Minimize adverse groundwater impacts through active management and optimization of vegetative resources that support hydrologic function.

Policy: Groundwater resources are preserved and protected when at least 2.5% of Class II and Class III pinyon juniper woodlands are restored to sagebrush – grassland vegetative communities based on a 10 year rolling average.

Finding: Pine forests with more than 160 trees per acre and spruce/fir forests with more than 320 trees per acre are not resistant or resilient to fire and put groundwater resources at risk.

Finding & Goal: Groundwater resources are best preserved and protected when the following minimum objectives are established when lands experience prescribed or wildland fire:

1. Retain 40 percent ground cover after the burn with recruitment to 60 percent ground cover before the first rainy season following the burn.
2. Do not reduce perennial and intermittent channel shading more than 20 percent of the natural range of variability or by an amount that will take more than three years to recover, whichever is smaller.
3. “Burn” and/or “feeder” piles will not be made in channels or swales within the area occupied when the bank full width is doubled.
4. Burned piles within riparian areas will be left “messy” in order to retain sediment on site.
5. Ignitions will not occur within 15 feet of riparian areas.

6. Any firelines created during burning operations will follow *The Five-D System for Effective Fireline Waterbars* (Hauge et al., 1979).
7. Firelines that need to cross riparian areas will do so perpendicular to the channel and should not have more than 40 feet of hydrologic connectivity.
8. Cupped fire lines should have water gaps every 20 feet to allow captured water to exit.
9. Existing disturbance areas, such as roads and trails, should be used to the extent possible as fire lines.

Policy: Land managers shall optimize forest and rangeland health and vegetative cover as a means of preserving and protecting groundwater resources.

Policy: In order to reach a full range of reasonable alternatives, federal planning processes shall fully analyze at least one alternative that includes groundwater preservation and protection provisions outlined in Millard County's Resource Management Plan.

Policy: Pine stands that have more than 160 trees per acre and spruce-fir stands that have more than 320 trees per acre are subject to catastrophic fire and are not being managed for fire resistance and resilience. Tree densities in excess of these limits are subject to catastrophic fire and threaten groundwater resources.

Finding & Policy: Groundwater resources in the Pahvant Valley are under increasing pressure and need to be carefully managed. Millard County will coordinate with federal, state, and private interests to identify and managed valuable groundwater resources.

Finding: Whereas, groundwater resources in the State of Utah and in Millard County are being developed at unprecedented rates to enable agricultural and residential consumption; it is in the interest of Millard County to protect and preserve groundwater aquifers throughout the county from over-appropriation and groundwater mining.

Policy: It shall be the policy of Millard County to question and/or protest groundwater developments on private, county, state, and/or federal lands within its borders. The county will encourage the State Engineer to conduct exhaustive hydrological studies prior to granting new appropriations in Areas 14, 18, 19, 68, 69, and 71. Millard County encourages land managers, to the extent allowed by state and federal law, to conduct hydrological studies to preserve and protect groundwater resources and to take action where necessary.
Finding & Policy: It shall be the policy of Millard County to retain and preserve groundwater resources in the basin of origin. Movement of groundwater to another basin causes environmental harm and negative socio-economic impacts to Millard County and shall be prohibited to the extent allowed by law.

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2.5.5 Water Quality

Introduction

The Clean Water Act (CWA, 33 U.S.C. §1251 et seq. (1972)) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Additional amendments have occurred over time including direction for control of nonpoint source pollution and procedures for state implementation of total maximum daily load standards of impaired waters.

Under the CWA and with approval of the EPA, the State of Utah has primacy for water quality and has implemented pollution control programs such as setting wastewater standards for industry and water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. Permits are

managed by Utah's Division of Water Quality through the Utah Pollution Discharge and Elimination System (UPDES).

Discharges from nonpoint sources are also controlled. Nonpoint source pollution generally results from stormwater runoff, precipitation, atmospheric deposition, drainage, seepage or hydrologic modification. Nonpoint source (NPS) pollution, unlike point source pollution from industrial and sewage treatment plants, comes from many diffuse sources. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters and ground waters. Monitoring and regulation of nonpoint source pollution is more complex that point source pollution because it results from numerous and diverse contributors.

Current Setting

Millard County is a large, sparsely populated county in southcentral Utah and has very limited industrial and municipal development. Approximately 75% of the land is under federal ownership, and only about 13% is held by private interests. Consequently, population growth and the development of urban/urbanized areas and industries which have major influences on water quality do not exist. Point source discharges are controlled by state and local regulations; and overall water quality is within established standards. Industrial and municipal discharges are almost entirely limited to municipalities. Communities in Millard County rely on approved wastewater systems. No point source discharge issues are known to exist in Millard County.

Nonpoint source discharges are also characteristic of rural, sparsely populated areas. Relatively few perennial streams and water bodies exist in Millard County. One individual reach of the Sevier River in the County has been identified on the state's list of 303(d) impaired waters: The Sevier River from Crafts Lake to Gunnison Bend Reservoir (Salinity/TDS/chlorides). Two sections of the river were delisted in 2014 and 2016 respectively; Sevier River from DMAD Reservoir upstream to U-132 crossing at the northern most point of the Sevier River (Phosphorus, Salinity/TDS/chlorides, Sediment) and Sevier River from Gunnison Bend Reservoir to DMAD Reservoir (Phosphorus, Salinity/TDS/chlorides, Sediment.) Total Daily Maximum Loads (TD ML) reports, which include water quality data and implementation plans typically carried out by various federal, state, and local governments and private cooperators, have been prepared for these waters.

In addition to point and nonpoint pollution sources that are commonly recognized as impacting perennial waterbodies, Millard County is also impacted by pollution from ephemeral streams. Stormwater runoff is generated from rain and snowmelt events that flow over land and do not soak into the ground. The runoff picks up pollutants like organic debris and dirt/sediment that can harm rivers, streams, and lakes. Concentrated flows also cause damage to ephemeral stream

banks and dry washes, threatening rangeland health and stability. Although detailed empirical data is not available, runoff intensity has notably increased over the past few decades. Larger and more damaging runoff events have taken place, and sediment and debris flows have increased proportionally. Together, they can cause changes in hydrology and water quality that result in habitat modification and loss, increased flooding, decreased aquatic biological diversity, and increased sedimentation and erosion. The benefits of effective stormwater runoff control and management of ephemeral watercourses include: protection of wetlands, riparian and aquatic ecosystems; improved quality of receiving waterbodies; conservation of soil resources, and improved range/land forest health.

To protect water quality and associated resources from point and nonpoint pollution, stormwater controls, known as best management practices (BMPs), have been implemented by various agencies. These BMPs filter out pollutants and/or prevent pollution by controlling it at its source. The State of Utah and local governments are authorized under the Clean Water Act to implement permitting and management actions, including BMPs to protect water quality and water resources.

Another form of nonpoint source pollution is hydrologic modification. This term refers to activities that affect the natural pathways of surface water, such as stream channel modification and channelization, deposition which inhibits natural flow patterns and streambank erosion. Although these activities don't seem like forms of pollution, they nevertheless are considered to be part of the non-point source pollution problem. Many rivers and streams have natural flood control areas, such as oxbows, adjacent wetlands, and riparian ones. When these areas are modified or removed, significant changes in the ecological functions of surrounding lands are likely to occur. Channel modifications – even when occurring naturally - frequently degrade instream and riparian habitat for fish and wildlife. Other impacts include erosion and the reduction of the system's ability to filter pollutants. Similarly, upland vegetative modifications, especially adjacent to riparian areas and wetlands can change surface hydrology and reduce natural buffers.

Need for Management Change

1) The Clean Water Act authorizes states and local governments to control water quality within their jurisdictions. The State of Utah through its Division of Water Quality has obtained primacy for water quality in Millard County and throughout the state.

2) Degrading water quality, especially in ephemeral water courses, resulting from encroaching conifers has not been recognized for its impacts on water quality. Site specific and cumulative impact analysis of Class II and Class III pinyon / juniper woodlands on water quality needs to be included in future NEPA analysis.

3) Beneficial uses of water bodies in Millard County need to be coordinated, evaluated and brought into consistency with Millard County's Resource Management Plan.

4) Land managers need to actively manage for increased forage production to reduce sedimentation in and hydrologic modification of Millard County's perennial, intermittent and ephemeral water resources.

5) Land managers need to develop additional detention areas, lakes, ponds, wetlands, riparian areas, grade structures, and mesic conditions to slow stormwater and reduce erosion.

6) Consistent with ecologic site conditions, land managers need to replace pinyon / juniper woodlands with sagebrush, semi-desert grasslands to increase vegetative soil cover and reduce sediment transport and erosion.

7) While developing additional detention areas, lakes and ponds, land managers need to recognize stormwater management approaches that rely solely on peak flow storage have not usually targeted pollution reduction and only treat sediments after they have entered the watercourse. Upland vegetative productivity and cover also needs to be enhanced and optimized with appropriate native and non-native seed mixes.

Desired Future Conditions
Millard County Desires:

a) The quality and quantity of existing water resources be improved and enhanced.

b) Millard County has a more active role in water quality management.

c) Implementation of County water quality plans, regulations, ordinances and best management practices for forest and rangelands to reduce sediment and debris in the County's watercourses.

d) Without diminishing existing multiple-use levels and uses, implement Best Management Practices, including vegetative treatments and restoration of invasive conifer woodlands to sagebrush / semi-desert grasslands, to reduce pollutant loading in impaired streams and to reduce sedimentation in all perennial, intermittent and ephemeral watercourses.

e) Degrading water quality, especially in ephemeral water courses, resulting from encroaching conifers and inadequate desirable vegetative cover be recognized for their impacts on water quality.

f) Site specific and cumulative impact analysis of Class II and Class III pinyon / juniper woodlands on water quality be included in future NEPA analysis.

g) Beneficial uses of water bodies in Millard County be coordinated, evaluated and brought in to consistency with Millard County's Resource Management Plan.

h) Land managers actively manage for increased forage production to reduce sedimentation in and hydrologic modification of Millard County's perennial, intermittent and ephemeral water resources.

i) Land managers develop additional detention areas, lakes, ponds, wetlands, riparian areas, grade structures, and mesic conditions to slow stormwater and reduce erosion.

j) Consistent with ecologic site conditions, land managers replace pinyon / juniper woodlands with sagebrush, semi-desert grasslands to increase vegetative soil cover and reduce sediment transport and erosion.

k) While developing additional detention areas, lakes and ponds, land managers recognize stormwater management approaches that rely solely on peak flow storage do not usually targeted pollution reduction and only treat sediments after they have entered the watercourse.

l) Upland vegetative productivity and cover also needs to be enhanced and optimized with appropriate native and non-native seed mixes.

m) Consistent with ecologic site descriptions and the County's RMP, land managers improve the vegetative productivity of their soils.

n) Consistent with ecologic site descriptions and based on a 10 year rolling average, land managers restore 2.5% of Class II and Class III pinyon / juniper woodlands to sagebrush / semi-desert grassland habitat.

Findings, Policies, Goals & Objectives

Finding & Policy: Water quality in Millard County is impacted by upstream land management actions that affect downstream resources. Upstream land managers shall be consistent with Millard County's Resource Management Plan to the maximum extent allowed by law and consistent with and with deference to local government's plans, policies and programs where the management actions are taking place.

Finding: Water quality, point source pollution, nonpoint source pollution, and hydrologic modification associated with private lands are being appropriately managed by the Utah Division of Water Quality. Future efforts need to focus on the vast majority of lands in the County that are not in private ownership.

Policy & Goal: Millard County will cooperate and coordinate with the State of Utah to review and revised Total Daily Maximum Loads (TDMLs) for hydrologic units listed on the 303(d) list of impaired streams and to develop water quality management plans for other watercourses in Millard County.

Goal: Improve and enhance the quality and quantity of water resources in Millard County.

Goal: Manage designated municipal watersheds to preserve or enhance the quantity, quality and health of the water resources.

Policy: Millard County will coordinate with the Utah Division of Water Quality to re-evaluate and refine beneficial use designations of Millard County's water bodies.

Finding: Multiple-use / Sustained Yield principles implement best management practices for oil & gas leasing, mining, timber harvesting, recreation, OHV use, roads, travel designations, livestock grazing and other activities. Implementation of existing best management practices on site specific projects protects water quality in Millard County and promotes enjoyable and productive harmony between man and his environment.

Policy: Millard County supports expanded livestock grazing adaptive management including extended on / off dates, intense seasonal grazing to control invasive species and vegetation based use criteria. Unless coordinated with and approved by Millard County, livestock grazing restrictions shall not be implemented until water quality prioritizations and provisions outlined in this RMP are completed.

Policy: Land managers shall control water runoff from disturbed or developed sites and shall control soil erosion from undeveloped sites through implementation of provisions contained in the County's RMP. With concurrence of the Millard County Commission, land managers may implement alternate provisions that have been coordinated with the County and are demonstrated to advance the findings, policies, goals, and objectives of the County RMP.

Policy: Land managers shall actively manage for increased forage production to reduce sedimentation in and hydrologic modification of Millard County's perennial, intermittent and ephemeral water resources.

Policy: While supporting existing levels and uses, land managers shall develop additional

detention areas, lakes, ponds, wetlands, riparian areas, grade structures, and mesic conditions to slow stormwater and reduce erosion.

Policy: Consistent with ecologic site conditions, land managers shall replace pinyon / juniper woodlands with sagebrush, semi-desert grasslands to increase vegetative soil cover and reduce sediment transport and erosion.

Finding: Development of detention areas, lakes, ponds, and other areas that rely solely on peak flow storage for stormwater management is desirable but does not prevent the movement of pollutants and sediment across the land and only treats waters after they have been impacted.

Finding: Optimization of vegetative cover with appropriate and desirable native and non-native vegetative communities provides the best opportunity to promote enjoyable and productive harmony between man and his environment.

Policy: Millard County supports an integrated approach to stormwater management without negatively impacting existing resource levels and uses. Based on existing conditions, current technology, acreages in need of improvement, effectiveness of potential actions, and other factors, Millard County adopts the following prioritization to improve water quality:

1. Optimization of upland vegetative cover through restoration, improvement and enhancement of desirable native and non-native vegetative communities, including restoration of Class II and Class III to sagebrush / semi-desert grasslands, especially in areas of accelerated erosion.
2. Development, enhancement and expansion of detention areas, lakes, ponds, wetlands, riparian areas, grade structures, and mesic conditions to slow stormwater and reduce erosion.
3. Maintenance of existing biologic soil communities where it is scientifically and statistically demonstrated their positive impact on water quality exceeds benefits from optimizing vegetative cover by more than 20%.
4. Modification of existing Best Management Practices for oil & gas leasing, mining, timber harvesting, recreation, OHV use, roads, travel designations, livestock grazing and other multiple-use / sustained yield activities.

Policy: Consistent to the maximum extent allowed by law, land managers shall a) reduce impacts to water quality by complying with the provisions of Millard County's Resource Management Plan; or b) as approved by Millard County, develop and implement a cooperative and coordinated water quality management plan prior to the first day of their 2020 fiscal year.

Policy: Consistent with ecologic site descriptions, land managers shall improve the productivity

of their soils.

Policy: Consistent with ecologic site descriptions and based on a 10 year rolling average, land managers restore 2.5% of Class II and Class III pinyon / juniper woodlands to sagebrush / semi-desert grassland habitat.

Policy: Surface disturbing activities within withdrawn Drinking Water Source Protection Zones may be allowed if the disturbance does not degrade water resources and best management practices are implemented.

Policy: Proper disposal, other beneficial use and appropriate surface discharge of produced water from new activities on public land is allowed if mitigation measures and / or best management practices are implemented to address impacts from the produced water.

References:

Utah's 2016 303(d) List of Impaired Waters, Utah Department of Environmental Quality - Division of Water Quality

TDML Water Quality Study of the Middle and Lower Sevier River Watersheds, Utah Department of Environmental Quality - Division of Water Quality, 2004

Clean Water Act, 33 U.S.C. §1251 et seq. (1972)

2.6 VEGETATION

Introduction

Vegetation along with water is one of the most important renewable resources in Millard County, and is perhaps the only single resource that allows land managers the greatest opportunity for impacting land health, improving species habitat, protecting water resources, restoring streams, stabilizing riparian areas and watercourses and counteracting any effects of wildland fire and potential climate cycle change.

Vegetation plays an important role in many key ecological processes and social values. Vegetation impacts water cycling (precipitation capture, storage, and redistribution), energy capture and cycling (conversion of sunlight to plant matter), and nutrient cycling (the cycle of nutrients such as nitrogen and phosphorus through the physical and biotic components of the

environment). Vegetation also provides root systems that help maintain soil integrity and reduce erosion (particularly on steep slopes and areas adjacent to waterways) and provides soil-site stability by limiting redistribution and loss of soil resources (including nutrients and organic matter) by wind and water. Vegetation allows a site to capture, store, and release water from rainfall, run-on, and snowmelt.

Vegetation supports clean water, fish and wildlife habitat, livestock and wild horse forage and desirable conditions for recreation, carbon sequestration, and scenery. Vegetation provides such benefits as hiding cover, browse, and nesting habitat for a variety of wildlife species. All healthy vegetative communities, especially healthy forests, forbs and grasses, sequester vast amounts of carbon. Vegetation is a key component in establishing the capacity of a site to support characteristic functional and structural communities in the context of normal ecological variability and is the dominant indicator of productivity and land health.

Millard County's plans, policies and programs for maintenance of soil and water resources, special status species conservation, protection of water quality, fish and wildlife health, forest management, livestock grazing, recreation and scenery incorporate a strong vegetative component. Conversely, ecological processes and resources that are not currently in Properly Functioning Condition are largely attributable to a substandard vegetative component.

The capacity of a site to:

a) support characteristic benefits,
b) resist loss of function and structure due to disturbance, and
c) to recover following disturbance

is in direct correlation to the vegetation present at a site.

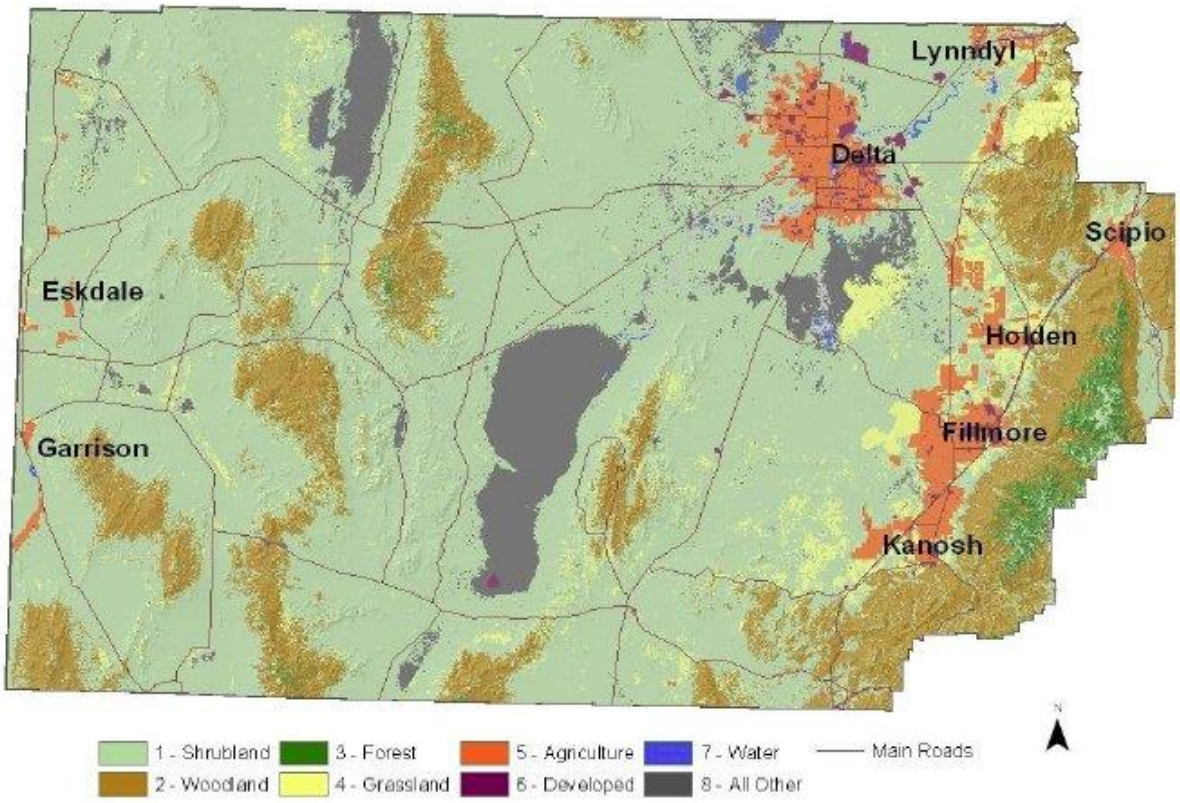
Vegetation can generally be characterized by ecological provinces, and more specifically by plant communities and associations. Plant communities and associations are groups of plant populations that coexist in space and time and directly or indirectly affect each other's population dynamics. Distinct plant communities are influenced by characteristics such as soil depth, texture, and salinity; climate variables, particularly temperature, total and seasonal distribution of precipitation, and wind; and topographic features, most importantly elevation, aspect and slope. The following discussions of plant communities that occur within the County show the diverse and complex nature of vegetation resources in the area. Plant communities can be represented by plant cover types that reflect the dominant species present in an area.

Plant communities and associations are often represented by regional, landscape level, rapid ecoregion, or remotely assessed processes such as the plant cover types documented by the Southwest Regional Gap Analysis Project (SWReGAP) data. The SWReGAP is an update of the Gap Analysis Program's mapping and assessment of biodiversity for the five-state region

encompassing Arizona, Colorado, Nevada, New Mexico, and Utah. 43 SWReGAP land cover types were combined into nine vegetation cover types intended to reflect BLM's management of vegetation communities and associations. Due to the dispersed nature, large land area and generalized application of the process, SWReGAP landscape level remote sensing is not an accurate method for detailed inventories or condition assessments necessary for management decisions. However, they may be suitable for very broad planning processes that are followed by site specific refinement.

Vegetation communities can be represented by plant-cover types that reflect the dominant species of an area. However, nature is rarely as definitive as planning descriptions, so plant communities in Millard County have been combined to facilitate planning level descriptions. The vegetation communities and associations generally discussed in this section comprise the major vegetation communities and associations in Millard County. Upland vegetation, riparian/wetland vegetation and bare ground are discussed in this section. Invasive species are discussed in Section 2.6.2 Invasive Species and Noxious Weeds. Special status plant species (T&E and sensitive plant species) are discussed in Section 2.7 Special Status Species.

Figure 2.6.1 Vegetative Cover Types



The vegetation communities and associations generally discussed in this section comprise the major vegetation communities and associations in Millard County. Upland vegetation, riparian/wetland vegetation, and invasive species are discussed in this section. Special status plant species (T&E and sensitive species) are discussed in the Special Status Species section.

Need for Management Change

1) SWReGAP data needs to be refined before it is used for management actions, planning prescriptions, or site specific projects.

2) Management decisions need to be based on reliable, objective, site-specific data analyzed in accordance with the Data Quality Act (sometimes referred to as the Information Quality Act).

3) It needs to be recognized that there are no places left in Millard County that are completely void of man's impact. Historic vegetative conditions need to be recognized as arbitrarily selected snapshots in time and space that may no longer be desirable or achievable.

4) In order to achieve a productive and enjoyable harmony between man and his environment, land managers need to aggressively implement actions that are consistent with desired future conditions, findings, policies, goals and objectives outlined in the Millard County Resource Management Plan.

5) Desirable native and/or non-native vegetation need to be used when allowed by law. Native only vegetation needs to be used only when:
   a) required by law, or
   b) it provides greater optimization and conservation of targeted resources.

6) Land managers need to implement more aggressive actions to restore, improve and maintain Millard County's vegetative resources.

Desired Future Conditions

Millard County desires:

a) All management decisions are based on reliable, objective, site-specific data analyzed in accordance with the Data Quality Act.

b) Eco-region, landscape level or remote sensing such as SWReGAP data is field verified and refined before it is incorporated into management actions, planning prescriptions, or site specific projects.

c) Land managers aggressively implement actions that are consistent with desired future conditions, findings, policies, goals and objectives outlined in the Millard County Resource Management Plan to restore, improve and maintain Millard County's vegetative resources.

d) Land managers optimize vegetative resources in Millard County by using native and/or non-native vegetation that best meets the desired objectives.

e) Native only prescriptions are limited to actions:
   a) required by law, or
   b) where greater optimization and conservation of targeted resources occurs.

Findings, Policies, Goals and Objectives

Finding: Eco-region, landscape level or remote sensing such as SWReGAP data is insufficient for land use planning in Millard County unless it is field verified and refined before it is incorporated into management actions, planning prescriptions, or site specific projects.

Policy, Goal & Objective: Land managers shall aggressively implement actions that are consistent with desired future conditions, findings, policies, goals and objectives outlined in the Millard County Resource Management Plan to restore, improve and maintain Millard County's vegetative resources.

Policy, Goal & Objective: Land managers shall optimize vegetative resources in Millard County by using native and/or non-native vegetation that best meets the desired objectives.

Policy, Goal & Objective: Native only prescriptions shall be limited to actions:
   a) required by law, or
   b) where greater optimization and conservation of targeted resources occurs.

2.6.1 Desired Vegetation Communities

(Reserved)

2.6.1.1 Upland Vegetation

Upland vegetation refers to the dominant vegetation communities that are not directly associated with wetlands or streams. This vegetation type makes up the vast majority of Millard County's vegetation with some estimates indicating upland composition in excess of 95% of all lands in the County not covered by water. Although not directly associate with water, upland vegetation, or lack thereof, can have a significant impact on water quality, runoff, erosion, and aquatic habitat. The County's upland vegetation types and dominant plant communities are discussed below.

2.6.1.1a Forests and Woodlands

Forests and woodlands are found throughout the County, especially in higher elevations, and consist of deciduous and coniferous species of trees and shrubs. These areas play a major role in the local ecosystem by providing wildlife habitat, stabilizing soils, reducing erosion, contributing to water quality, producing vegetative biomass, sequestering carbon dioxide from the air, producing oxygen, and serving as indicators of overall ecosystem health. Forests and woodlands have been subject to long-term natural and human manipulation. Historically forests and woodlands have be subject to wildland fire. More recently these valuable resources have been impacted through fire suppression and management approaches that exclude active and appropriate timber management. The primary components of this vegetation type are discussed below.

Pinyon / Juniper (PJ) Pinyon-juniper woodlands are the most widely distributed and largest forest type community in the County. This community generally occurs on a variety of slopes and aspects, and its soils are usually coarse-texture, calcareous alluvium derived from sandstone and shale. There are significant amounts of bare ground, litter, and desert pavement at the soil surface. These woodlands—one of the most xeric forest types in the United States—occupy about 48 million acres primarily in Nevada, Utah, Arizona, New Mexico, and Colorado. Several associations of pinyon and juniper trees comprise the woodlands throughout its range including pure or nearly pure stands of pinyon or juniper trees and varying mixtures of the two species. Complete crown closure of overstory trees is rare, but tree roots causing a suppression of understory vegetation often occupy the soils underneath well-developed stands. Estimates indicate PJ woodlands are the increasingly dominant forest type and make up approximately 60% of all forested areas in Utah and occupy as many as 8 million acres. PJ comprises 62% of forested lands in Millard County.

PJ forests, as a result of their chemically competitive nature, inhibit grasses and forbs from germination, thereby creating and maintaining a nearly homogenous, sterile vegetation community. These habitat types provide very little forage opportunities to wildlife, especially big game. PJ woodland communities are increasing in the Western United States as other

vegetation communities are invaded by pinyon-juniper woodland species. Utah juniper (Juniperus Ostoesperma) is expanding into open meadows, grasslands, sagebrush steppe communities, quaking aspen groves, riparian communities, and forestlands. The replacement of shrub steppe communities with juniper woodland has been largely attributed to the reduced role of fire, primarily facilitated by passive vegetative management and active fire suppression. The reduction of fine fuels through livestock grazing prior to the Taylor Grazing Act in 1934 may have played a role in initiating PJ encroachment, but failure to reintroduce a fire component in invasive woodlands has significantly expanded any such impact. This expansion of pinyon-juniper woodlands has been facilitated by a combination of climatic changes/drought and the removal of understory vegetation.

Pinyon-juniper woodlands areas also include lower montane riparian woodlands. These are linear areas or patches occurring primarily in the lowest elevations. The areas are dependent on the natural hydrologic regime and flooding and are often found near wet meadows.

Pinyon-juniper woodland stands can be classified as ephemeral or persistent on a landscape. Persistent stands are those that occupy a given site for a long period and typically have little fire disturbance or very infrequent fire disturbance (fire return intervals in excess of 200 years).

Ephemeral stands are those that periodically share a landscape with other vegetation types, such as sagebrush. The dynamic of area dominance has typically been controlled by the periodicity of fire on the site. Given that fire frequency on many of these sites has been altered (reduced) since pioneer times, more acres are now dominated by pinyon-juniper woodland than were historically reported, and the trees on these sites are often older than would have been expected in a pre-settlement stand.

These changes in fire occurrence and frequency incrementally modify vegetation cover, effecting wildlife habitat and overall landscape condition. Where fires in the sagebrush-steppe were once fueled primarily by herbaceous vegetation, many are now fueled by taller woody vegetation with higher fuel loads. This results in more intense fires that can be damaging to soils, creating habitat for noxious, invasive, and nonnative early successional species in the area.

In the absence of fire or mechanical treatment projects, ephemeral pinyon-juniper woodland will continue to opportunistically expand and increase in density. As tree density increases and tree canopies close, fewer resources are available for understory species. In this situation, understory species (grasses, forbs, and shrubs) will be reduced and wildlife habitat and forage production will be adversely affected. Under juniper-dominated canopies, increases in bare ground and

impaired hydrological function, resulting in high levels of erosion, are additional consequences of increasing juniper dominance.

A potential exacerbating force to the spread of pinyon-juniper woodland are the potential effects of climate cycles, which could limit resistance and resilience to PJ expansion into adjacent big sagebrush shrublands by expanding drought conditions and fire return intervals. In addition, the expanding range of pinyon-juniper woodlands will result in greater erosion loss of wildlife habitat

Due to increased fuel loadings and increased continuity of tree canopies, wildfires can burn readily and more intensively than historically through ephemeral pinyon-juniper woodland stands, causing both damage to the topsoil and increased erosion from post-fire rains and snow runoff. The threat of canopy-burning fires at high intensities and rapid rates of spread can also impact stands of persistent pinyon-juniper woodland, ponderosa pine, and other tree species, as well as adjacent non-forest vegetation types.

Ponderosa Pine Ponderosa pine (*Pinus ponderosa*) is the most widely distributed pine species in North America, ranging from southern British Columbia to central Mexico and from central Nebraska to the west coast. In climax forests, ponderosa pine stands often contain many small, even-aged groups rather than a true uneven-aged structure. Interior ponderosa pine or shrub communities in central and southern Utah are usually the lowest coniferous forest type, and border shrublands or pinyon- juniper woodlands.

Ponderosa pine is found scattered through many of the mountain ranges in the region. It is a minor component in many stands of mixed conifer, pinyon-juniper woodland, aspen, and mountain mahogany. In a few areas it forms stands where it is the dominant cover type. Ponderosa pine is an important habitat type, providing high-quality wildlife habitat and visual diversity, often in areas that are otherwise dominated by low-growing woody vegetation.

As with other vegetation types, the fire regime of the ponderosa pine has been altered since pioneer times, and less frequent fires have allowed increases in understory vegetation. This understory vegetation is often pinyon, juniper, or mountain mahogany, all of which provide fuel "ladders" that allow damaging fires to move into the crowns of the taller ponderosa pine. Historically, fires remained largely in the understory of larger trees, causing little damage to the pine.

Wildfires have reduced acreages of mature ponderosa pine for several decades in many parts of southern Utah. Centuries-old trees that once withstood multiple ground-based fires have been lost to canopy fires. These trees are not a replaceable resource within the foreseeable future. Ponderosa pine will continue to be lost in the planning area if the current stand conditions, with

substantial understory vegetation, are allowed to persist and spread throughout a stand. Mechanical removal through selective harvest, coupled with the removal of understory growth and judicious use of prescribed fire, can be a long-term solution to promote fire resistance / resilience and to reduce stand-eliminating fires.

Mixed Conifer Mixed conifer stands can be composed of one or more of several species: Douglas-fir, white fir, ponderosa pine, limber pine, Great Basin bristlecone pine, and aspen. Occasionally, and primarily on the western side of the County at higher elevations, subalpine fir, Engelmann spruce, and blue spruce can make up a small percentage of a mixed conifer stand. Where aspen is a stand component, it typically indicates the site was once dominated or mostly dominated by aspen, and it likely indicates that fire has not played the same role in the ecosystem it once did.

Many parts Utah have seen an increase in drought-related bark beetle activity that has resulted in mortality of Engelmann spruce, white fir and Douglas-fir. Many of the mixed conifer stands are in areas managed for primitive recreation, making managers reluctant to approve use of mechanical management tools. In addition, many mixed conifer stands are on steep, inaccessible slopes where active management is limited.

Mixed conifer vegetation communities within the planning area are dominated by two primary associations: white fir and Douglas fir. Mixed conifer vegetation communities and associations are found at elevations ranging from 5,000 to 8,500 feet. This mesic vegetation community generally occurs on steep, lower slopes and benches with northern aspects, and in narrow canyons and ravines. Mixed conifer vegetation communities include upper montane/subalpine riparian forests, shrublands and herbaceous riparian areas. These riparian areas are linear or patches confined to specific environments occurring on floodplains or terraces of rivers and streams. Shrubs are often found in these areas. Understory conditions vary widely from dry, open-canopy forests with grassy undergrowth on open slopes and ridges to moist, closed-canopied stands dominated by numerous herbaceous plants in the canyons and ravines.

Species composition, forest density, structure, and disturbance regimes have been altered in many mixed conifer forests of southern Utah since settlement. Interruption of natural fire regimes has allowed succession to move these forests toward more shade-tolerant species. As a result, ponderosa pine is no longer dominant in mixed conifer forests and aspen populations have declined dramatically. Ponderosa pine has lost acreage to both Douglas-fir and white fir, and in turn, Douglas-fir has lost acreage to white fir.

Selective harvesting and fire exclusion has caused dense, multistoried Douglas-fir and white fir to largely replace the ponderosa pine component in mixed conifer stands. As a result, mixed conifer forests are now very susceptible to western spruce budworm, root disease, bark beetles,

dwarf mistletoe, and stand-replacing fires. The higher densities and contiguity of forests has led to large regional insect outbreaks that are more severe than in the past. Larger outbreaks will result in continued changes in forest structure, composition, and function, including creation of openings, depletion of large diameter trees, and an increase in fire hazard due to greater surface fuel accumulations. With continued fire exclusion in mixed conifer forests, surface and ladder fuels will continue to coalesce with crowns of over-story trees. This change in vertical fuel structure will further increase the probability of severe stand replacement crown fires.

Spruce – Fir Mixed Engelmann spruce and subalpine fir forests comprise the upper extent of forest vegetation in southern Utah, occupying the coldest and wettest sites in the altitudinal continuum of ecologic conditions in the area. Precipitation regimes in these forests are dominated by snow, which can occupy these sites for 6 to 8 months of the year. Spruce-fir forests can exist on-site for extremely long periods, sometimes as long as 500 to 600 years, with reports of even longer periods. Harsh climates and short growing seasons result in infrequent, but large-scale disturbances including fire, insect attacks, wind, and avalanches, which historically interacted to create coarse-scaled mosaics of different aged patches on the landscape.

Spruce-fir forests have expanded into the mixed coniferous forests, as well as into high elevation meadows of southern Utah. Expansion into the lower elevations is a result of succession from aspen forests to mixed conifer forests due to fire suppression and because aspens provide suitable habitat for the establishment of shade tolerant conifers. Expansion into some higher meadows has also occurred over the past 100 years. If climatic warming is occurring, it would increase the length and warmth of the growing season, possibly improving seedling survival. Furthermore, fire suppression has allowed seedlings to establish on the edges of meadows and reduce the extremely high soil moisture making it easier for additional seedlings to establish in the center of the meadows.

The structure of spruce-fir forests in Utah is predominately uneven-aged. Engelmann spruce is the major species, followed by subalpine fir and aspen. Pure Engelmann spruce stands and spruce-fir forests (where spruce and subalpine fir are codominant) consist of all ages, although the majority of these trees are 51 to 150 years old. In addition, there are some Engelmann spruce trees 151 to 250 years old. Often, subalpine fir is also present indicating its ability to maintain itself under the Engelmann spruce canopy for long periods. The predominance of subalpine fir seedlings in the understory of Utah forests is indicative of its ability to successfully reproduce on duff-covered seedbeds, but spruce's average longevity over subalpine fir keeps it dominant in the over-story.

Insect activity has also dramatically increased in Utah in recent years. Spruce bark beetle populations have been at epidemic levels since 1991 on the Dixie National Forest. And since 1989, large areas of the Dixie, and Fishlake have experienced severe disturbances caused by

spruce bark beetle. Most spruce trees greater than 6 to 8 inches were killed during these outbreaks. It is estimated from 2000 to 2004, spruce bark beetles killed over 366,000 trees on over 100,000 acres of Utah National Forests. Hazard ratings indicate that 45 percent of spruce-fir forest types are at moderate to high risk of attack by bark beetles.

Aspen Quaking aspen is the most widely distributed tree in North America. Aspen stands provide excellent diversity for wildlife and ecological settings. The largest stands are in mountain environments at higher elevations. Other stands can be found scattered in many of the mountain ranges, typically in riparian areas or on the more mesic sites. Stands tend to be small, and sometimes clones can be composed of just a few individuals. Aspen has become subordinate to conifer in some stands, which are now classified as mixed conifer stands. On these sites, typically white fir, one of the most shade-tolerant conifers, has become the dominant species. On the drier aspen sites, junipers and pinyons have become a prominent understory component of aspen stands. The increase in coniferous species in aspen- and once-aspen-dominated stands is an indicator that fire has not played its former role in the ecosystem. In Millard County, aspen reproduces primarily by vegetative reproduction. Without active management or fire use, aspen will likely continue to decline within the region. Aspen stands could regenerate following fire events in mixed conifer stands that have an aspen component.

Aspen provides habitat for a wide variety of wildlife needing young forests, including black bear, deer, elk, ruffed grouse, and a number of smaller birds and animals. Compared to conifer forests, aspen forests allow more surface water and/or groundwater recharge and streamflow because of their lower seasonal water losses to interception and transpiration. Aspen stands also produce abundant forage that amounts to as much as 1,000 to 2,500 pounds per acre annually, or three to six times more than typical conifer stands. These amounts are comparable to forage production on some grasslands.

Fire is a natural feature in much of the aspen ecosystem of western North America. It is responsible for the abundance of aspen in the West and for the even-aged structure of most stands. In some areas, many aspen stands are the same age, dating from a single great fire or a year of widespread fires. Fire appears to be necessary for the continued well-being of aspen on most sites. Many aspen stands are replaced by grass, forbs, shrubs, or conifers in the absence of fire. Because of low fuel accumulations, aspen stands have low flammability and make excellent firebreaks.

Aspen is considered a fire-induced successional species that will dominate a site until it is replaced by less fire-enduring and more shade-tolerant species, such as conifers - provided a coniferous seed source is present. Fire reduces the over-story, stimulates shoots to sprout, and kills invading conifers growing in the aspen clone. Since aspen can sprout from existing roots

and these suckers grow faster than the new slower growing conifers, aspen can dominate a grove for many years after a fire. Otherwise, aspen can be replaced relatively quickly by conifers, within 100-200 years, or the replacement may be slower taking more than 1,000 years.

Aspen forests do not readily burn. Aspen trees have moist green leaves and thick twigs that do not burn easily, unlike conifers, which have dry needles and twigs. Crown fires running through coniferous forest drop to the ground when they come to an aspen stand and may even extinguish after burning into the aspen only a few yards. Fires sometimes bypass stands of aspen enclosed within coniferous forest.

Although aspen forests do not burn readily, aspen trees are extremely sensitive to fire. A fire intense enough to kill the aspen over-story will stimulate abundant suckering, though some suckers arise after any fire. As many as 50,000 to 100,000 suckers can sprout and grow on a single acre after a fire.

Although many diseases attack aspen, relatively few kill or seriously injure living trees. Generally, the common leaf diseases are found throughout the range of aspen, while decay fungi and major canker-causing organisms are more locally distributed. Much remains to be learned of the disease organisms that infect aspen.

The aspen ecosystem is rich in number and species of animals, especially in comparison to associated coniferous forest types. Aspen forest types produce an abundance of forage, as much as many grasslands and more than 10 times that produced under associated conifers. Cattle and sheep grazing the aspen understory has been the primary consumptive use of the aspen forest in the West.

Browsing has a direct impact on aspen trees in this forest community. Through the early sapling stage, browsing reduces aspen growth, vigor, and numbers. Heavy browsing by large ungulates such as deer, elk, or sheep can drastically reduce or eliminate aspen sucker regeneration.

Beaver can also affect aspen. Beaver have the ability to cut and remove saplings to mature-sized aspen trees. Cutting, by itself, stimulates abundant aspen suckering. Beaver cut aspen of all diameters, feed on the bark and small branches of the felled trees, and utilize stems of medium diameter in their dams. The flooding resulting from the beaver dams may change the entire plant community, and even the landscape. A series of benches may result from siltation behind beaver dams. Each bench is relatively flat and wet along the stream course, often too wet for aspen to develop. These benches may become dominated by other vegetation for centuries.

Aspen is especially susceptible to gnawing or stripping of its bark by several species of mammals, such as elk, deer, rabbits, hares, mice, voles, and porcupines. Aspen buds are an important winter food source for wildlife. Aspen seedlings and saplings may also be trampled by

large ungulates and may be affected by digging and feeding upon their roots by pocket gophers and other burrowing creatures.

Need for Management Change

1) Forest and woodland health needs to be restored to the historical range of variability, including but not limited to composition, age, size, and density in accordance with ecologic site descriptions.

2) Land managers need to increase the use of timber harvesting to restore resilience and resistance to fire, insects, and other disturbances.

3) Insect and disease epidemics that could degrade forest and woodland health need to be prevented.

4) Land managers need to use silvicultural practices to increase the presence of large trees in Ponderosa Pine stands.

5) Mixed conifer forests need to be returned to earlier successional stages and have age and spatial diversity increased.

6) In mixed conifer forests, prescribed fire needs to be used judiciously after harvests, thinning, mechanical mastication, and other fuel reduction projects to eliminate undesirable seedlings.

7) Additional forage resulting from improved forest health needs to be allocated to livestock and wildlife in accordance with the County's plans, programs and policies.

8) Spruce fir forests need to be restored to healthy conditions and maintained in a condition that is resilient and resistant to fire and insect damage.

9) Aspen regeneration and rejuvenation need to be increased.

Desired Future Conditions

Millard County desires:

a) Forest and woodland health is restored to the historical range of variability, including but not limited to composition, age, size, and density in accordance with ecologic site descriptions.

b) The use of timber harvesting is increased to restore resilience and resistance to fire, insects, and other disturbances.

c) Insect and disease epidemics that could degrade forest and woodland health are prevented.

d) Silvicultural practices are used to increase the presence of large trees in Ponderosa Pine stands.

e) Mixed conifer forests are returned to earlier successional stages and have age and spatial diversity increased.

f) Prescribed fire is used judiciously after harvests, thinning, mechanical mastication, and other fuel reduction projects in mixed conifer forests to eliminate undesirable seedlings.

g) Additional forage resulting from improved forest health is allocated first to livestock to restore suspended or un-used AUMs, second to wildlife to meet objectives in place on January 1, 2015 and third equally between livestock and wildlife.

h) Spruce fir forests are restored and maintained in a healthy condition that resilient and resistant to fire and insect damage

i) Aspen are regenerated and rejuvenated.

Findings, Policies, Goals and Objectives

Finding: Forests and woodlands impact land health and the health, safety, welfare, custom, culture and heritage of Millard County. It is imperative that forests and woodlands are restored to and maintained in a properly functioning condition.

Finding: Forests and woodlands that are susceptible to catastrophic fire, insects and disease threaten air quality, water quality, soil stability, wildlife, recreation and the health, safety, welfare, custom, culture and heritage of Millard County.

Finding: Forests and woodlands that are a) outside a desirable range of variation or b) not in properly functioning condition fail to support an enjoyable and productive harmony between man and his environment.

Goal & Objective: Restore and maintain the County's forests and woodlands to a properly functioning condition consistent with the historical range of variability and ecologic site descriptions, including but not limited to composition, age, size, and density.

Policy: Timber and woodland resources shall be managed to prevent insect and disease epidemics that could degrade forest and woodland health. Integrated forest management, including harvesting, thinning, mulching, prescribed fire and other appropriate techniques, shall be implemented to restore forests and woodlands to a condition that prevents insect and disease epidemics.

Policy: Silvicultural practices are the preferred method of increasing the presence of large trees in Ponderosa Pine stands.

Goal & Objective: Return mixed conifer forests to earlier successional stages and have age and spatial diversity increased.

Policy: Consistent with forest / woodland health and ecologic site conditions and coordinated with Millard County, ranger districts and field offices shall develop target values for successional stages, age diversity, basal area, tree density, and spatial diversity for forests and woodlands within their jurisdictions.

Policy: Where stand conditions exceed the target values identified above for late successional stage, age, basal area or density by more than 5%, tree stands will be deemed:

a) susceptible to catastrophic fire, insect infestation and disease and
b) failing to meet resistant and resilient conditions.

Policy, Goal & Objective: Land managers should focus treatment area prioritization on ponderosa pine and mixed conifer forests types where fire regimes and vegetation attributes have been significantly altered from their historical range of variability. These areas require moderate to high levels of mechanical restoration treatments before fire can be reintroduced to restore the historical fire regime.

Policy, Goal & Objective: In ponderosa pine forests, treatments should focus on converting to uneven-aged management, and reducing or removing shade tolerant conifers and oak.

Policy, Goal & Objective: Mixed conifer forest treatments should focus on reducing the amount of shade tolerant species and leaving more fire-resistant tree species such as ponderosa pine and Douglas-fir.

Policy, Goal & Objective: Spruce-fir forest treatments should focus on maintaining a landscape of different age structures, successional stages, and fuel breaks to lessen the risk of catastrophic fire.

Policy: Based on a 10 year rolling average and consistent with desired ecological site descriptions, restore at least 2.5% of the Class II and Class III pinyon/juniper woodlands having a median age of less than 200 years to sagebrush / semi-desert grassland vegetation communities.

Policy: Prescribed fire is an appropriate tool for maintaining forest health and should be used judiciously after harvests, thinning, mechanical mastication, and other fuel reduction projects have been appropriately implemented.

Policy: Additional forage resulting from improved forest health shall be allocated on the following priority:

First – To restore suspended or un-used livestock Animal Unit Months (AUM);
Second - To wildlife to meet January 1, 2015 objectives;
Third - Equally between livestock and wildlife.

Goal & Objective: Spruce fir forests are restored and maintained in a healthy condition that resilient and resistant to fire and insect damage.

Policy, Goal & Objective: Land managers shall restore forests impacted by insects and disease to properly functioning condition with appropriate seral stages, ages, basal area, tree densities and spatial diversity at a rate of 1.0% annually.

Goal & Objective: Aspen are regenerated and rejuvenated.

2.6.1.1b Sagebrush – Steppe/Semi-Desert

The word "steppe" is used to describe a large, dry, level, grassland or scrubland having few or no trees. Steppe areas, also referred to as "semi-desert," are dry, cold, grasslands found between deserts and forest or woodlands. Under natural conditions, steppes are covered with grasses and shrubs. Sagebrush steppe or sagebrush semi-desert is a dry site vegetation community with a mix of sagebrush, other shrubs, grasses, and forbs. The names come from sagebrush, which is the most abundant plant species that grows in this ecosystem.

Sagebrush steppe vegetation communities and associations are common in Utah, Washington, Oregon, Idaho, and adjacent Wyoming, and Nevada. Sagebrush steppes are mostly found at elevations between 4,000 and 6,000 feet. Sagebrush steppe is a major vegetation community in the County and is usually interspersed with pinyon-juniper woodlands and desert scrub vegetation communities. Precipitation in these areas is between 8–15 inches per year, and soils are dry with a thin organic horizon

Widely distributed in the Great Basin, this vegetation community is often found in the valley portions of Millard County west of the I-15 corridor. Sagebrush steppe communities generally occur on the drier portions of pinyon-juniper woodlands and mesic portions of the desert shrub community. Characteristic and dominant shrubs in this habitat may include basin sagebrush, Wyoming sagebrush, mountain sagebrush, antelope bitterbrush, and silver sagebrush. Each of these species can be the only shrub or appear in complex seral conditions with other shrubs. Rabbitbrush and short-spine horsebrush are common associates and often dominate sites after disturbance. Forbs with shallow root systems are favored in wetter years, whereas deeply rooted shrubs have the competitive advantage during droughts and survive by tapping deeply infiltrated moisture.

Numerous bird and mammal species are found in sagebrush steppe communities. These species can be grouped into sagebrush obligates (e.g., sage thrasher, sage sparrow, Brewer's sparrow, pygmy rabbit, sagebrush vole, sagebrush lizard and pronghorn); shrubland species (e.g., green-tailed towhee, black-throated sparrow, and lark sparrow); and Shrubland-Grassland species (e.g., Swainson's hawk, ferruginous hawk, prairie falcon, sharp-tailed grouse, and loggerhead shrike).

Shrubs typically provide 10 to 60 percent of the vegetation cover in undisturbed conditions, and in disturbed areas shrub cover varies between 10 and 30 percent. Vegetation structure in this community is characterized by an open shrub layer over a moderately open to closed bunchgrass layer. The more productive sites generally have a denser grass layer and sparser shrub layer than more xeric sites. The bunchgrass layer may also contain a variety of forbs. Sagebrush steppe vegetation communities generally have relatively little exposed bare ground, and mosses and lichens may carpet the area between taller plants. Moist sites may support tall bunchgrasses greater than 3.3 feet or rhizomatous grasses.

Sagebrush ecosystems have been degraded in the past several decades, largely as a result of invading pinyon/juniper, suppression of fire and failure to maintain historic disturbance cycles.

Need for Management Change

1) Sagebrush-dominant vegetation communities need to be restored to the historical range of variability, including but not limited to composition, age, size, and density in accordance with ecologic site descriptions.

2) Land managers need to increase vegetative treatments in sagebrush ecosystems to restore the historic and natural range of variability.

3) Invading conifers, especially pinyon/juniper associations, need to be recognized as the greatest threat to a desired and healthy sagebrush ecosystem in Millard County, and treatments need to be implemented to restore sagebrush ecosystems to their historic range.

4) Loss of sagebrush ecosystems to invading conifers needs be recognized for its impact on water quality, wildlife, erosion and other ecological resources.

5) Suspended AUMs for livestock need to be restored commensurate with restoration of invading conifers to desirable sagebrush communities.

6) Water gain from restoration of invading conifers to sagebrush communities needs to be optimized for rangeland health and multiple-uses.

7) Additional water needs to be developed in current and restored sagebrush ecosystems to optimize multiple-use / sustained yield benefits.

Desired Future Conditions

Millard County desires:

a) Sagebrush-dominant vegetation communities are be restored to the historical range of variability, including but not limited to composition, age, size, and density in accordance with ecologic site descriptions.

b) Managers increase vegetative treatments in sagebrush ecosystems to restore the historic and natural range of variability.

c) Invading conifers, especially pinyon/juniper associations, are recognized as the greatest threat to a desired and healthy sagebrush ecosystem in Millard County; and treatments are implemented to restore sagebrush ecosystems to their historic range.

d) Loss of sagebrush ecosystems to invading conifers needs be recognized for its impact on water quality, wildlife, erosion and other ecological resources.

e) Suspended AUMs for livestock need to be restored commensurate with restoration of invading conifers to desirable sagebrush communities.

f) Water gain from restoration of invading conifers to sagebrush communities needs to be optimized for rangeland health and multiple-uses.

g) Additional water needs to be developed in current and restored sagebrush ecosystems to optimize multiple-use / sustained yield benefits.

h) Prescribed fire is used judiciously after thinning, mechanical mastication, and other treatment projects are completed.

i) Additional forage resulting from improved rangeland health is allocated first to livestock to restore suspended or un-used AUMs, second to wildlife to meet objectives on January 1, 2015 and third equally between livestock and wildlife.

Findings, Policies, Goals and Objectives

Goal: Manage sagebrush steppe/semi-desert communities for desired future conditions, ensuring ecologically diversity, stability and sustainability.

Objective: Maintain or enhance the integrity of current sagebrush and sage-brush semi-desert communities and identify areas in need of restoration due to pinyon-juniper expansion or decadent stands of sagebrush.

Objective: Initiate restoration and/or rehabilitation efforts to ensure sustainable population of other sagebrush-obligate species.

Objective: Maintain vegetation treatment areas to provide suitable habitats and forage for wildlife and livestock.

Objective: Respond to effects of possible climate cycles by maintaining vegetation communities in good vegetation and soil health. Manage communities to a standard that has decadent, dying, or dead vegetation less than 10 percent compared to live, vigorous vegetation.

Objective: Provide for vegetative restoration in semi-desert ecosystems, including control of noxious weed infestations, and invasive and undesirable nonnative species using optimal mixes of native and non-native species.

Objective: Utilize adaptive management principles for resource uses during times of extended drought and during times of abundant forage.

Goal: Restore Sagebrush-dominant vegetation communities to historical range of variability, including but not limited to composition, age, size, and density in accordance with ecologic site descriptions.

Policy: Managers shall increase vegetative treatments in sagebrush ecosystems to restore the historic and natural range of variability.

Finding & Policy: Invading conifers, especially pinyon/juniper associations, are recognized as the greatest threat to a desired and healthy sagebrush ecosystem in Millard County. Treatments to arrest conifer invasion and restore sagebrush communities shall be prioritized.

Finding & Policy: Loss of sagebrush ecosystems to invading conifers is recognized for its impact on water quality, wildlife, erosion, potential climate cycles and other ecological resources.

Policy: Suspended AUMs for livestock will be restored commensurate with restoration of invading conifers to desirable sagebrush communities.

Policy: Water gain from restoration of invading conifers to sagebrush communities will be optimized for rangeland health and multiple-uses.

Policy: Additional water needs to be developed in current and restored sagebrush ecosystems to optimize multiple-use / sustained yield benefits.

Policy: Prescribed fire is most judiciously used after thinning, mechanical mastication, and other treatment projects are completed.

Goals & Objectives: Unless otherwise approved by Millard County and consistent with ecologic site conditions, the following minimum objectives are established when lands are treated with prescribed or wildland fire in sagebrush habitats:

1. Retain 40 percent ground cover after the burn with recruitment to 60 percent ground cover before the first rainy season following the burn.
2. Cupped fire lines should have water gaps every 20 feet to allow captured water to exit.
3. Existing disturbance areas, such as roads and trails, should be used to the extent possible as fire lines.

Policy: Additional forage resulting from improved rangeland health and vegetative treatments in sagebrush communities shall be allocated first to livestock to restore suspended or un-used AUMs, second to wildlife to meet objectives of January 1, 2015 and third equally between livestock and wildlife.

Policy: Managers shall use of the full range of upland vegetation treatment methods and tools (i.e., prescribed fire, chaining, plowing, bull hog, pipe harrow, hand cutting, herbicide, aerial seeding, drill seeding, and broadcast seeding) to make progress toward achieving desired future conditions in sagebrush ecosystems.

Policy: Managers shall treat all vegetation types to achieve or make progress toward achieving desired future conditions in sagebrush ecosystems. Seed mixes shall be comprised of an optimum combination of native and non-native species and will be based on factors such as soil type, precipitation, and elevation, to provide for effective rehabilitation and the greatest opportunity for success of vegetation treatments. Seed mixes will be comprised of a diverse composition of appropriate species to allow for progress within the range of variability provided by the appropriate Ecological Site Description.

Policy: Managers shall treat areas that contain cheatgrass and other invasive or noxious species in sagebrush habitats and shall reduced invasive species and noxious weeds by 10% annually.

Policy: Managers shall treat sage-brush semi-desert communities to:

a) provide a healthy, diverse mosaic of different height and age structures with components of native and non-native grasses and forbs, and

b) limit the pinyon-juniper component for a given ecological site to Class II and Class III PJ woodlands with a median age of at least 200 years.

Policy: Based on a 10 year rolling average and consistent with desired ecological site descriptions, restore at least 2.5% of the Class II and Class III pinyon/juniper woodlands having a median age of less than 200 years to sagebrush / semi-desert grassland vegetation communities.

Finding & Policy: Class I pinyon juniper trees and Class II and Class III pinyon juniper woodlands with a median age less than 200 years are invasive conifers that are inconsistent with managing for sage-obligate habitat or rangeland health.

Finding & Policy: Pinyon and juniper trees are invasive conifers that degrade rangeland health, water quality, soil stability, vegetative ground cover and other resources. Pinyon / juniper trees and stands shall not be protected as old growth unless they have an age greater than 300 years.

Finding & Policy: Managers have not objectively or scientifically proven native seeds have greater adaptability, probability of success or availability. In sage-obligate management areas and when restoring sagebrush communities, managers shall use an optimum mixture of native and non-native seeds until such time as native only seed mixtures are proven more productive and efficient.

2.6.1.1c Desert Shrub-Scrub

Desert shrub includes the salt shrubs; greasewood, black brush, and desert grassland vegetation cover types. Comprising large portions of western Millard County, this is the largest vegetation community in the dries parts of the County. This vegetation community is primarily located on the valley floors and is most common on well-drained, sandy to rocky soils; however, saline and alkaline soils are tolerated. Plants within this community are adapted to a wide temperature range, and many are capable of photosynthesis at temperatures as low as 11°F. Desert shrub areas are typically at elevations between 2,500 and 8,000 feet. Structural and compositional variations in this habitat are related to changes in salinity and fluctuations in the water table and can be described as occurring in two primary vegetation associations — saltbush and salt-desert shrub.

The saltbush vegetation association is perhaps the most arid vegetation type in the intermountain West. These areas are characterized by accumulations of salt in poorly developed deep soils. Soils in these areas usually have a pH of 7.8 to 9, which restricts the uptake of water by all but the most salt-tolerant plants (halophytes). Halophytes function essentially to redistribute salts from the soil depths to the surface, thereby concentrating salts around the perimeter of the plant. This enables the plant to eliminate competition for scarce water and nutrients from other less salt-tolerant plants.

The salt-desert shrub association is characterized by drought tolerant shrubs, with few grasses and forbs in the understory. The soils in these areas are shallow saline clays and loams. Typical shrubs in these vegetation types are shadescale, four-wing saltbush, spiny hopsage, greasewood, winterfat, broom snakeweed and bud sagebrush.

Black brush is less tolerant of saline soils than greasewood or salt shrubs and can form nearly monotypic stands with a high percent shrub cover. Fourwing saltbush is tolerant of saline or alkaline soils and has adaptations that enable it to concentrate and secrete salts on the leaf surface.

Wildlife and livestock use of desert shrub vegetation varies depending on the species present. Fourwing saltbush is very palatable and provides high-quality forage for wildlife and livestock even during drought conditions. Black greasewood is a valuable browse for livestock and wildlife, particularly during fall and winter; however, when consumed in large quantities, the soluble oxalates it contains may be poisonous to livestock. The forage value for black brush is principally as browse for bighorn sheep. Domestic sheep and goats, and to a lesser extent

cattle, browse black brush. During the winter in southwestern Utah, black brush provides fair forage for domestic sheep and cattle.

Grasslands are comprised of native, non-native naturalized and undesirable annuals. Arid grasslands are dominated by drought resistant plants that have adapted to harsh conditions by developing extensive root systems. Historically, this grassland system was maintained by frequent fires and was sometimes associated with specific soils, often well drained clay soils. A combination of precipitation, temperature, and soils limits this system to the lower elevations within the region. The dominant perennial bunch grasses and shrubs are all very drought resistant plants. Grasses that dominate these communities often develop a dense network of roots concentrated in the upper parts of the soil where rainfall penetrates most frequently. Blue grama, james galleta, indian ricegrass and other common species are generally tolerant to properly managed livestock grazing. Each of the native species has specific characteristics which allow them to adapt to their site specific soil and precipitation conditions.

Naturalized and biologically equivalent non-native species have also been introduced in the County. These species often serve as nurse crops or are used in specific applications such as seedings or post fire restoration. Naturalized and biologically equivalent non-native species are a valuable component of the desired vegetative regime, especially where rangeland health is threatened by the invasion of undesirable species.

Undesirable annual grasslands are generally isolated and are typically located in disturbed areas, especially those burned by wildfire. Areas that are dominated by undesirable annual grasses have typically achieved an ecological threshold and will require significant effort to restore native and biological equivalent non-native species.

Need for Management Change

1) Consistent with ecologic site descriptions and desired future conditions, land managers need to implement active treatments to restore and enhance rangeland health and the vigor of arid vegetative communities.

2) Undesirable annual grasses / cheatgrass needs to be controlled and reduced until it can be eradicated.

3) Where livestock grazing is allowed, additional water needs to be developed to diversify the use of available forage by livestock and wildlife.

4) Intense early season grazing, herbicide treatments and biologic agents need to be aggressively employed in areas of undesirable annual grass expansion.

5) Encroachment by undesirable native species, invasive non-native vegetation, and noxious weeds needs to be eliminated.

6) Areas previously encroached by undesirable native species, invasive non-native vegetation, and noxious weeds need to be restored to properly functioning and desired future conditions.

7) Naturalized and biologically equivalent non-native species need to be allowed when their use improves land health unless prohibited by law.

8) Managers need to restore an appropriate disturbance regime to maintain a desirable mix of seral stages.

Desired Future Conditions
Millard County desires:

a) Land managers implement a full complement of integrated management techniques to restore appropriate disturbance regimes, desirable seral stages and to enhance rangeland health and the vigor of arid vegetative communities.

b) Undesirable annual grasses / cheatgrass is reduced by 0.5% annually until it can be eradicated.

c) Additional water resources are developed to diversify forage utilization by livestock and wildlife.

d) Intense early season grazing, herbicide treatments and biologic agents are aggressively employed in areas of undesirable annual grass expansion.

e) Additional encroachment by undesirable native species, invasive non-native vegetation, and noxious weeds is eliminated.

f) Other than cheatgrass, areas previously encroached by undesirable native species, invasive non-native vegetation, and noxious weeds are restored to properly functioning and desired future conditions at a rate of 2.5% based on a 10 year average.

g) Unless prohibited by law, naturalized or biologically equivalent non-native species be allowed/used when they optimizes vegetative cover or improve land health.

h) Managers enhance vegetative production and forage by livestock and wildlife to combat any effects of climate cycles.

i) Where native grasslands or non-native seedings have been lost to pinyon and juniper encroachment, cheatgrass/halogeton invasion or other undesirable vegetation, lands are restored to the native or treated condition. The desired future condition is that vegetative community (native or non-native) that optimizes rangeland health, ground cover and vegetative production.

j) Salt-desert shrub communities consist of native and / or naturalized and biologically equivalent non-native open salt-desert scrub vegetation with little to no cheatgrass or halogeton cover, and scattered pockets and patches of herbaceous material and forbs, primarily in the lower areas of the terrain.

k) Shrubland communities consist of dense-to-scattered shrubs and dense-to-open native and / or naturalized and biologically equivalent non-native grasses. Where surface disturbance occurs, areas are aggressively seeded with a seed mix optimized to reduce invasion of undesirable species and erosion.

l) Following fire, vegetative communities in this biome are seeded and revegetated, prior to the first rains supporting germination with a native and non-native mix designed to optimize short term and long term rangeland health.

Findings, Policies, Goals & Objectives

Finding: Rangeland health is optimized and the effects of drought and potential climate cycles are minimized when managers implement an integrated combination of mechanical, chemical, seeding and biological treatments to reduce cheatgrass and halogeton cover and restore native and desirable non-native communities.

Policy: Land managers shall implement an integrated combination of mechanical, chemical, seeding and biological treatments to optimize rangeland health and minimize the effects of drought and potential climate cycles.

Policy: Land managers shall implement an integrated combination of mechanical, chemical, seeding and biological treatments to reduce cheatgrass, halogeton and other undesirable vegetation and to restore native and desirable non-native communities

Policy, Goal & Objective: Undesirable annual grasses / cheatgrass shall be reduced by 0.5% annually until eradicated.

Policy, Goal & Objective: Additional water resources shall developed to diversify forage

utilization by livestock and wildlife.

Finding: Intense early season grazing, herbicide treatments and biologic agents are appropriate and valuable techniques in combating undesirable annual grass expansion.

Policy, Goal & Objective: Land managers shall aggressively employ intense early season grazing, herbicide treatments and biologic agents in areas of undesirable annual grass expansion prior to prescribed management of other multiple-uses.

Policy: Areas historically occupied by desert shrub / grassland communities that have been encroached upon by undesirable native species, invasive non-native vegetation, and noxious weeds shall be restored to properly functioning and desired future conditions at a rate of 2.5% based on a rolling 10 year average.

Policy: Unless prohibited by law, naturalized or biologically equivalent non-native species shall be allowed/used when they optimizes vegetative cover or improve land health.

Policy: Managers shall enhance vegetative production and forage by livestock and wildlife to combat any effects of potential climate cycles.

Policy: Where native grasslands or non-native seedings have been lost to pinyon and juniper encroachment, cheatgrass/halogeton invasion or other undesirable vegetation, lands shall restored to the native or treated condition. The desired future condition is that vegetative community (native or non-native) that optimizes rangeland health, ground cover and vegetative production.

Policy, Goal & Objective: Salt-desert shrub communities shall consist of native and / or naturalized and biologically equivalent non-native open salt-desert scrub vegetation with little to no cheatgrass or halogeton cover, and scattered pockets and patches of herbaceous material and forbs.

Policy, Goal & Objective: Shrubland communities shall consist of dense-to-scattered shrubs and dense-to-open native and / or naturalized and biologically equivalent non-native grasses. Where surface disturbance occurs, areas are aggressively seeded with a native/non-native seed mix optimized to reduce invasion of undesirable species and erosion.

Policy, Goal & Objective: Following fire, vegetative communities in this biome are seeded and / or revegetated, prior to the first rains supporting germination with a native and non-native mix

designed to optimize short term and long term rangeland health.

2.6.1.2 Riparian & Wetlands

Riparian and wetland systems are found throughout the Rocky Mountain and Great Basin regions within a broad range terrain and elevation conditions. These systems often occur as a mosaic of multiple communities that are often tree-dominated with a diverse shrub and grass component. Riparian areas are typically dependent on a natural hydrologic regime, especially annual to episodic flooding. Wetland areas are typically dependent upon continuous saturation or inundation of soils to support wetland obligate species. Riparian occurrences are found within the flood zone of rivers, on islands, sand or cobble bars, and immediately adjacent to streambanks. They can form large, wide occurrences on mid-channel islands in larger rivers or narrow bands on small, rocky canyon tributaries and well-drained benches. Wetlands are typically found in backwater channels and other perennially wet but less scoured sites, such as floodplains, swales and irrigation ditches. Both riparian and wetland systems may also occur in upland dominant areas of mesic swales and hillslopes below seeps and springs.

Riparian and wetland systems in the County experience typically cold winters and hot summers. Surface water is generally high for variable periods. Soils are typically alluvial deposits of sand, clays, silts and cobbles that are highly stratified with depth due to flood scour and deposition. Highly stratified profiles consist of alternating layers of clay loam and organic material with coarser sand or thin layers of sandy loam over very coarse alluvium. Soils are often fine-textured with organic material over coarser alluvium. Some soils are more developed due to a slightly more stable environment and greater input of organic matter.

Riparian/wetland areas commonly contain specialized vegetation associated with surface or subsurface moisture. Riparian resources include wetland areas which require prolonged saturation of soils and contain certain vegetative species dependent upon saturation. Only a small percentage of lands in Millard County contain riparian/wetland resources. Riparian and wetland ecological systems comprise less than 1 percent of the approximately 22 million acres of BLM-administered public lands in Utah, but are among the most important, productive, and diverse ecosystems on the landscape. Most of these resources are commonly located along major rivers, drainages, or spring sites with a higher density located in forests and areas of higher precipitation than in the arid lowlands.

Moisture for wet meadow community types is acquired from groundwater, stream discharge, overland flow, overbank flow, and on-site precipitation. Salinity and alkalinity are generally low

due to the frequent flushing of moisture through the meadow. Depending on the slope, topography, hydrology, soils and substrate, intermittent, ephemeral, or permanent pools may be present. These areas may support species more representative of purely aquatic environments. Standing water may be present during some or all of the growing season, with water tables typically remaining at or near the soil surface. However, fluctuations of the water table throughout the growing season are not uncommon. On drier sites supporting the less mesic types, the late-season water table may be several feet or more below the surface. Soils typically possess a high proportion of organic matter, but this may vary considerably depending on the frequency and magnitude of alluvial deposition and flood conditions. Organic composition of the soil may include a thin layer near the soil surface or accumulations of material several feet thick.

Wet meadow ecological systems provide important water filtration, flow attenuation, and wildlife habitat functions. Properly functioning riparian/wetland areas help maintain the quality and quantity of water regularly used for both culinary and agricultural purposes. Riparian and wetland areas also support habitat for migratory birds, raptors, and fish; support forage and browse for wildlife, wild horses, and livestock; and provide numerous recreation opportunities.

Riparian areas occur throughout the County as long strips of vegetation adjacent to streams, rivers, lakes, reservoirs, and other inland aquatic systems that affect or are affected by the presence of water. This vegetation contributes to unique ecosystems that perform a large variety of ecological functions Riparian areas are classified as lotic riparian resources (flowing water streams and rivers) or lentic riparian resources (non-flowing wetlands, meadows, lakes, and reservoirs).

Wetland areas differ greatly in species composition, hydrologic regime, geophysical orientation, and climactic circumstances than adjacent uplands. Wetland areas can generally be described as areas influenced by subsurface or surface hydrology, creating anaerobic soil conditions and hydrologic conditions suitable for the establishment of plant species growing wholly or partially in water.

For this discussion, riparian areas and wetlands are considered coincidental because a) these community types typically occur in similar ecological components (e.g., soil moisture, terrain, and precipitation) and a) the resources demonstrate similar response patterns from impacts generated by surface disturbing influences.

Riparian/wetland resources are described through reference to the Properly Functioning

Condition (PFC), which is a qualitative analysis used to assess the condition of riparian/wetland areas. The term is used to describe the assessment process and define the potential functional capacity a particular riparian/wetland area could reach with appropriate management practices. PFC is a state of resiliency that measures the potential for an area to produce anticipated ecologic values. Riparian/wetland areas that are not reaching the functional capacity determined to be PFC are at risk of losing these values. Functioning condition is rated by category to reflect ecosystem health as follows:

Proper Functioning Condition – When adequate vegetation, landform, or large woody debris is present to dissipate energy associated with high flow; filter sediment, capture bedload and aid floodplain development; improve floodwater retention and groundwater recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics; and support greater biodiversity.

Functioning at Risk – Riparian/wetland areas that are in functioning condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

Nonfunctional – Riparian/wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows, and therefore are not reducing erosion, improving water quality, etc.

Unknown – Riparian/wetland areas that have not been inventoried or where there is insufficient information to make any form of determination.

Riparian/wetland areas are meeting PFC when a stream channel exhibits morphology and functionality similar to riparian and wetland areas in the planning area that have not been substantially altered by outside influences. These areas would have vegetation capable of attenuating flood flows, reducing erosion, and creating conditions suitable for the long-term and vigorous occupation of native vegetation on streambanks or in wetlands.

Riparian/wetland areas also can be monitored using quantitative short-term and long-term indicators. This monitoring procedure evaluates indicators for long-term trend, including vegetative composition near the water's edge, woody species regeneration, streambank stability, channel and water width and depth, and substrate composition. The procedures also help

determine if short-term management practices are meeting allowable-use criteria. Examples of short-term indicators include woody species use, stubble height, and streambank alteration.

Vegetation in riparian areas and wetlands is a dominant characteristic and includes trees, shrubs, sedges, and grasses. Invasive vegetation is common within riparian areas and often consists of exotic trees (Russian Olive and Tamarisk) and other noxious species (Russian Knapweed and Purple Loosestrife). Generally, the upland vegetation surrounding riparian systems is different and definable and ranges from grasslands to forests. In recent decades pinyon and juniper have also invaded riparian areas, putting additional pressure on limited water supplies.

Grass communities and species are a major component in most riparian and wetland areas. A mix of grasses can normally be found, with wide variability in the number of species, extent or location within the riparian/wetland area. Depending on the degree of inundation or saturation, grasses can include obligate wetland species where sufficient saturation occurs yearlong, facultative wetland grasses, or upland grass species.

This ecological system contains early, mid and late-seral riparian plant associations. It also contains non-obligate riparian species. Cottonwood communities are early, mid or late-seral, depending on the age class of the trees and the associated species of the occurrence. Mature cottonwood occurrences do not reach a climax stage and do not regenerate in place, but regenerate by "moving" up and down a river reach. Over time a healthy riparian area with appropriate ecological site conditions supports all stages of cottonwood communities. Riparian ecosystems are extremely susceptible to fire, containing native woody species which are fire intolerant, often resulting in catastrophic loss to fire, especially when invaded by exotic species including tamarisk.

Associations in this ecological system are adapted to soils that may be flooded or saturated throughout the growing season. They may also occur on areas with soils that are only saturated early in the growing season, or intermittently. Typically these associations are tolerant of moderate-intensity ground fires and late-season livestock and wildlife grazing. Most appear to be relatively stable types, although in some areas these may be impacted temporarily by intensive livestock grazing.

Causal factors for riparian/wetland areas not meeting PFC vary across the rangelands in the County. These factors are inside and outside management control; and in most cases, no single factor is responsible for conditions less than PFC. Common causal factors include (in no

particular order of importance) dewatering, drought, incised channels, excessive erosion/sedimentation because of poor upland conditions (i.e., pinyon-juniper woodland expansion), OHV use, wildlife & livestock grazing, and invasive species.

Federal land managers emphasize maintenance of riparian areas and wetlands. Management actions and projects have been implemented to improve riparian/wetland conditions include planting willows to reintroduce a native-woody species component, stream bank stabilization, sediment reduction, flood attenuation, and vegetative recovery in riparian areas and wetlands. Agencies have also initiated adaptive livestock and wildlife management actions to balance grazing and resource protection.

Need for Management Change

1) Active management needs to be implemented to improve and enhance riparian and wetland resources to provide for appropriate physical, biological, and chemical function.

2) Vegetation, soil, landform, and water need to be managed to meet or make progress toward attainment of the Utah Standards and Guidelines for Healthy Rangelands according to riparian and wetland site capability.

3) Vegetative and soil resources need to be managed to increase the land area occupied by riparian and wetland areas.

4) Additional water needs to be developed on federal lands to increase the percentage of lands occupied by riparian and wetland areas.

5) Managers need to implement structural and non-structural improvements in unstable water courses to restore riparian and wetlands to properly functioning / desired future conditions.

6) Riparian areas and wetlands need to be prioritized and managed to attain desired future conditions for riparian-related resources (e.g. fishery habitat, water quality, wildlife and livestock forage, and soil stability).

7) Riparian areas and wetlands need to be expanded and enhanced through integrated management of all types of vegetation including upland, pinyon/juniper woodlands, rabbitbrush, tamarisk, and Russian olive.

8) Riparian areas and wetlands need to be available for disposal and transfer to state and local

entities for uses which meet or move toward desired future conditions.

9) Passive riparian and wetland management need to be abandoned and replaced with aggressive, active management aimed at enhancing existing resources and developing new riparian areas and wetlands.

Desired Future Conditions

Millard County desires:

a) Riparian and wetland areas are maximized to provide the greatest productive harmony between man and his environment.

b) Properly functioning condition is achieved on riparian areas and wetlands in Millard County.

c) Riparian/wetland areas support the appropriate ecological conditions, composition and age-class of native and desirable non-native communities to maintain a healthy and properly functioning ecosystem.

d) Managers implement a full suite of structural and non-structural projects (mechanical, chemical, biological and appropriate fire) to improve and expand the health and extent of existing riparian and wetland areas.

e) Managers aggressively implement a full suite of structural and non-structural projects (mechanical, chemical, biological and appropriate fire) to create new riparian areas and wetlands.

f) The impacts of uplands (especially rabbitbrush, encroaching conifers and Class II and Class III pinyon/juniper woodlands) on riparian areas and wetlands are recognized and mitigated.

g) Riparian areas and wetlands are managed for the mutual and maximum benefit of wildlife, livestock and special status species.

h) Russian olive, tamarisk, noxious weeds and undesirable native and non-native vegetation are eradicated in Millard County's riparian areas and wetlands.

i) The optimum mixture of native and desirable non-native species are used to maximize riparian and wetland productivity, function and condition.

j) Land managers cooperate and coordinate with Millard County in the development of new

riparian and wetland resources, especially at culvert crossings, bridges, drainage ditches and road related infrastructure.

k) Riparian areas and wetlands are transferred to state or local control when managers are unwilling or unable to aggressively and actively expand the extent and health of riparian/wetland resources.

Findings, Policies, Goals & Objectives

Finding: Riparian and wetland resources have not been managed to maximize:

a) the productive and enjoyable harmony between man and his environment or

b) their appropriate physical, biological and chemical functions.

Finding: Upland resources have not been managed to maximize the extent, health and condition of riparian and wetland resources.

Policy, Goal & Objective: Riparian and wetland areas shall be maximized to provide the greatest productive harmony between man and his environment and their appropriate physical, biological and chemical functions.

Goal & Objective: Properly functioning condition is achieved on riparian areas and wetlands in Millard County.

Goal & Objective: Riparian/wetland areas support the appropriate ecological conditions, composition and age-class of native and desirable non-native communities to maintain a healthy and properly functioning ecosystem.

Policy: The optimal mix of native and desirable non-native species shall be used to support desired ecologic conditions and a properly functioning ecosystem. Native only communities shall be limited to areas where they optimize productivity and function.

Policy, Goal & Objective: Managers shall implement a full suite of structural and non-structural projects (mechanical, chemical, biological and appropriate fire) to improve and expand the health and extent of existing riparian and wetland areas. Active restoration

techniques are preferred over passive methods.

Policy, Goal & Objective: Managers shall aggressively implement a full suite of structural and non-structural projects (mechanical, chemical, biological and appropriate fire) to create new riparian areas and wetlands.

Finding: Passive management of uplands (especially rabbitbrush, encroaching conifers and Class II and Class III pinyon/juniper woodlands) has had a negative impact on riparian areas and wetlands in Millard County.

Policy, Goal & Objective: Aggressive, active management of uplands (especially rabbitbrush, encroaching conifers and Class II and Class III pinyon/juniper woodlands) shall be implemented to restore, enhance and develop riparian areas and wetlands in Millard County.

Policy: Based on a 10 year rolling average and consistent with desired ecological site descriptions, restore at least 2.5% of the Class II and Class III pinyon/juniper woodlands having a median age of less than 200 years to sagebrush / semi-desert grassland vegetation communities.

Policy, Goal & Objective: Remove 0.5% of encroaching conifers in federal riparian areas and wetlands annually. In priority sage obligate habitat remove 10% of encroaching conifers in wet meadows, riparian areas and wetlands.

Policy, Goal & Objective: Riparian areas and wetlands shall be managed for the mutual and maximum benefit of wildlife, livestock and special status species.

Policy: Managers shall refrain from implementing utilization standards less than 50%, unless
a) implementing a utilization standard between 30% and 50% on a temporary basis not to exceed 2 years is necessary to resolve site-specific concerns; and
b) the federal agency consults, coordinates, and cooperates fully with local government.

Policy: Prior to implementing actions that reduce livestock grazing in riparian areas where livestock grazing is not the primary cause of substandard conditions, land managers shall implement structural and non-structural improvements designed to restore properly functioning conditions.

Policy, Goal & Objective: Russian olive, tamarisk, noxious weeds, encroaching conifers, and undesirable native and non-native vegetation shall be removed from Millard County's riparian areas and wetlands at a rate of not less than 0.5% annually.

Policy: Optimum mixtures of native and desirable non-native species shall be used in Millard County to maximize riparian and wetland productivity, function and condition.

Policy: Land managers shall cooperate and coordinate with Millard County in the development of new riparian and wetland resources, especially at culvert crossings, bridges, drainage ditches and road related infrastructure.

Policy: Prescriptions on livestock grazing in riparian areas shall not be more restrictive than prescriptions for other large herbivores such as elk and wild horses.

Policy: Wildlife, wild horse and wild burro populations shall be maintained at or below objectives adopted prior to January 1, 2015 prior to implementing restrictions to livestock grazing in riparian areas and wetlands impacted by multiple species.

Policy: Structural and non-structural projects designed to restore wetlands and riparian areas to properly functioning condition are prioritized over livestock exclosures, especially where resources are being impacted by wildlife, wild horses or wild burros.

Finding & Policy: Millard County finds that riparian areas and wetlands that are not properly functioning after 2 years of livestock grazing exclusions are not impacted by livestock grazing. Land managers shall implement active structural and non-structural restoration projects and restore appropriate livestock grazing at the earliest possible date.

Policy, Goal & Objective: Riparian areas and wetlands are transferred to state or local control when managers are unwilling or unable to aggressively and actively expand the extent and health of riparian/wetland resources.

Finding: Exotic and native invasive plant species will continue to threaten and degrade riparian/wetland areas and adjacent uplands until land managers implement projects designed to restore properly functioning conditions and provide the desired vegetative communities.

Policy: Land managers shall implement the following priorities in restoring and maintaining riparian and wetland areas to properly functioning condition:

1) Structural improvements that support desired cross section, grade, slopes, sinuosity and other physical characteristics of the area.
2) Maintenance of wildlife, wild horses and wild burros within population objectives and

limited to herd management areas established on January 1, 2015.

3) Removal of undesirable native and non-native vegetative species.
4) Establishment of robust communities of desirable vegetative species, consistent with ecologic site descriptions.
5) Implementation of adaptive livestock grazing management techniques, consistent with principles of rangeland health.
6) Temporary (not to exceed 2 years) reduction of livestock grazing, when items 1 through 5 are proven to be ineffective.

Finding & Policy: Implementation of Millard County's priorities for restoring and maintaining riparian and wetland areas is the most effective method for preserving resource health and preventing loss of riparian/wetland resources due to potential climate cycles.

Finding & Policy: Rapid ecoregion assessments and landscape level planning are insufficient to meet the management needs for riparian and wetland resources in Millard County. Due to the limited area occupied by riparian areas and wetlands and the value of these resources to ecosystem health, site specific analysis shall be incorporated into actions which impact riparian and wetland resources.

Finding & Policy: Properly located and designed roads minimize impacts to riparian areas and wetlands. Where practical, roads located in riparian areas, wetlands and adjacent uplands will:
a) be located to minimize impacts to riparian/wetland resources,
b) cross streams as close to right angles as possible,
c) implement drainage systems which minimize vehicular contact with water and vegetation,
d) incorporate slopes that can be revegetated,
e) minimized soil loss and sedimentation, and
f) optimize ecologic harmony between the road and resources.

Policy: Roads in riparian areas and wetlands claimed by federal agencies under 23 CFR 460 shall not be closed, gated or have seasonal restrictions without consultation, cooperation and coordination with Millard County. Roads in riparian areas and wetlands not claimed by federal agencies under 23 CFR 460 shall be managed in accordance with the Millard County Resource Management Plan and shall not be closed, gated or subject to seasonal restrictions without Millard County approval.

Finding &Policy: Qualitative and quantitative monitoring provides limited snapshots in time and space and often mischaracterizes the overall health of riparian areas and wetlands. Monitoring data shall be used as indicators to identify areas where additional information may be needed and shall not serve as hard triggers that implement prescriptive management actions. Prescriptive management actions in riparian areas and wetlands shall be limited to those areas where accurate trends and conditions are known through comprehensive site specific analysis.

Policy: When land managers determine riparian areas and wetlands are not meeting or moving toward PFC, they shall coordinate with Millard County by informing the County Commission of the location, extent, causes, and proposed remedy of the condition.

Policy: Surface disturbing activities will be avoided within 330 ft. of riparian areas and wetlands, unless it can be demonstrated:
a) there are no practicable alternatives,
b) all long-term impacts can be fully mitigated,
c) the activity will benefit and enhance the riparian area, or
d) the activity will maintain the area's condition in a desired state.

Policy: Land Managers will implement changes in livestock grazing or recreation management to improve riparian areas before fencing water sources. Land managers shall provide offsite water for resource uses when necessary.

2.6.1.3 Non-Vegetated & Bare Ground

Non-vegetated lands consist of areas with less than 30 percent vegetation cover and occur in long term natural conditions, through natural events (wildfire, floods, landslides, etc.) or man-made disturbances.

Natural areas include lava outcrops, canyon cliffs, slickrock, and sparsely vegetated sand dunes. Volcanic areas are mostly exposed rock (usually greater than 90 percent of the groundcover with sparse alpine vegetation). These areas are often small but may be extensive and are mostly located at upper elevations in the mountainous portions of the County.

Lava outcrops occur throughout the intermountain west and are limited to non-vegetated and sparsely vegetated volcanic substrates such as basalt lava, basalt dikes, and basalt cliff faces with associated loose deposits of rock debris.

Great Basin cliffs, talus slopes, and canyons are in foothills to subalpine elevations and include non-vegetated and sparsely vegetated landscapes of steep cliff faces, narrow canyons, and smaller rock outcrops of various igneous, sedimentary rocks. Millard County includes some metamorphic cliff faces as well. The Great Basin cliffs and canyons are largely composed of exposed bedrock (usually sedimentary) and scree; whereas the Rocky Mountain cliffs and canyons are composed of various igneous, sedimentary, and metamorphic rocks.

Active and stabilized sand dune areas are primarily located in the lower/drier portions of the County. These sand areas may have sparse to moderate vegetation adapted to unstable coarse sands. The soil supporting vegetation is unconsolidated windblown sand on active dunes. The surrounding habitat is either vegetated, stabilized sands, sandstone slickrock, or various exposed shales and other fine grained exposed geologic rock types or their finer grained developed soils. Plants associated with sand dunes may include a wide variety of species such as sand mules ears, blowout grass, sand dropseed, giant dropseed, Indian ricegrass, sandhill muhly, silky sophora, Kanab yucca, rubber rabbitbrush, winged wild-buckwheat, and Ponderosa pine, pinyon pine, Utah juniper, and Welsh's milkweed.

Areas impacted by natural events such as wildfires, floods and landslides were generally vegetated before the event and may or may not be restored to a vegetated condition. Where adequate soil conditions remain, it is likely vegetation will return, but may take a considerable length of time if left to the natural environment. Some natural events alter the ecological site descriptions to the point that restoration to the original ecologic community is not possible. This may leave an areas susceptible to invasion by noxious weeds or undesirable species.

Man-made disturbances in modern times generally result in temporary non-vegetated/bare ground conditions. Best management practices require restoration after disturbance, and man's activities are controllable when compared to the forces of nature.

Need for Management Change

1) Managers need to optimize the use of non-vegetated/bare ground to accommodate surface disturbing activities that would be unacceptable in vegetated areas.

2) Slickrock areas need to be made available for mountain biking and canyoneering.

3) Sand dunes and other appropriate areas need to be made available for off road/atv open areas.

4) Areas disturbed by natural events need to be restored as quickly as possible to desired ecological conditions.

5) Noxious weeds and invasive species need to be prevented from areas disturbed by natural events, especially wildfire, and man's activities.

6) Managers need to identify at least 2% of the lands in the County for open ATV use.

Desired Future Conditions

Millard County Desires:

a) Managers optimize the use of non-vegetated/bare ground to accommodate surface disturbing activities that would be unacceptable in vegetated areas.

b) Slickrock and other suitable areas are made available for mountain biking, canyoneering and activities that are not fitting for vegetated areas.

c) At least 2% of the lands in Millard County are designated as open for cross-country ATV use, including sand dunes.

d) Areas disturbed by natural events are restored to acceptable conditions as soon as possible.

e) Lands impacted by wildfire are reseeded prior to the first season with acceptable moisture for germination. A minimum of 60% recruitment of vegetative ground cover consistent with ecologic site descriptions is desired within the first year after a wildfire event.

f) Vegetative resources are managed in a manner that prevents establishment or expansion of noxious weeds and invasive species in areas disturbed by wildfire, other natural events and man's activities.

g) Desirable vegetative communities are prioritized over biologic soil crusts in the restoration of bare ground. Where ecologic site conditions permit, biologic soil crusts serve as a nurse crop succeeded by vascular plants as soon as practical.

h) Native and non-native vegetative communities are allowed to optimize the attainment of vegetative cover standards and to assure sites remain productive and stable.

Findings, Policies, Goals & Objectives

Finding: Bare ground or non-vegetated areas are often natural conditions that are suitable for multiple-use activities that are not desired in vegetated areas.

Finding & Policy: Not all bare ground or non-vegetated areas are suitable for vegetation.

Policy, Goal & Objective: Managers shall optimize the use of non-vegetated/bare ground to accommodate surface disturbing, multiple-use activities that would be unacceptable in vegetated areas.

Policy, Goal & Objective: Suitable areas shall be made available for mountain biking, canyoneering, ATV use and other multiple-use activities that are not desired in vegetated areas.

Policy, Goal & Objective: At least 2% of the lands in Millard County shall be designated as open for cross-country ATV use.

Policy, Goal & Objective: Areas denuded of vegetation by natural events will be reseeded prior to the first moisture capable of germination and will be restored to properly functioning/desired ecological conditions condition as quickly as possible.
Policy: Bared ground and non-vegetated areas shall be managed to prevent establishment or expansion of noxious weeds and invasive species.

Policy, Goal & Objective: Lands impacted by wildfire shall be reseeded prior to the first season with acceptable moisture for germination. A minimum of 60% recruitment of vegetative ground cover consistent with ecologic site descriptions shall be attained within the first year after a wildfire event.

Policy: Desirable vegetative communities are prioritized over biologic soil crusts in the restoration of bare ground. Where ecologic site conditions permit, biologic soil crusts will serve as a nurse crop succeeded by vascular plants as soon as practical.

Policy: Optimum mixtures of native and non-native vegetative communities shall be used to maximize the attainment of vegetative cover standards and to assure sites remain productive and stable.

2.6.2 Invasive Plants and Noxious Weeds

Invasive species are plants that have adaptive characteristics such as high seed production; are aggressive and difficult to manage; are capable of invading native habitats; and can often substantially change vegetation communities and affect ecological relationships. Noxious weeds are a subset of invasive plant species. They are legally designated by state or federal law to have these characteristics and require prevention and control measures to help contain or eradicate them.

Invasive plant and noxious weed species are present at various locations in the County and occur along waterways, roads, recreation sites, rangeland, infrastructure ROW, and livestock/wild horse/wildlife use areas (e.g., trails, watering areas, feeding areas, and corrals). Different species of invasive plants and noxious weeds have the capacity to invade any almost any natural vegetative habitat. Invasive plants and noxious weeds are pioneer species, establishing quickly following ground-disturbing activities such wildland or prescribed fire, ground disturbing construction projects, unauthorized OHV use, and livestock grazing. Once invasive plants and noxious weeds populate a disturbed area, they can outcompete desirable, native, or naturalized vegetation.

Establishment of invasive plants and noxious weeds following ground disturbance is of particular concern because invasive species aggressively outcompete native plant and naturalized species, often altering the physical and biotic features of an ecological community and sometimes affecting the large portions of the landscape. The State of Utah defines noxious weeds in U.C.A. 4-17-2 as "… any plant the Commissioner of Agriculture and Food determines to be especially injurious to public health, crops, livestock, land, or other property." Noxious weeds are nonnative plants that are especially undesirable because they have no forage value and are sometimes toxic or are capable of invading plant communities and displacing native species. Some federal agencies recognize noxious weeds as one of the greatest threats to the health of rangelands nationwide.

The introduction of most the County's invasive plants and noxious weeds from Europe and Asia was unintentional. Once established, these plants spread rapidly by natural (e.g., wind, water, and wildlife) and human influenced means. A notable exception is the invasion of pinyon/juniper woodlands into sagebrush/grassland habitats that has occurred significantly in the last several decades. Invasive and noxious weeds typically have reproductive, morphological, and physiological attributes that allow them to effectively establish populations and outcompete native vegetation. Most invasive species have several of the following characteristics:

a) perennial growth, reproducing by rhizomes, roots, and/or vegetative parts;
b) continuous seed production throughout the growing season;
c) high seed production;
d) highly effective seed dispersal;
e) long periods of seed dormancy;

f) ability to grow under adverse conditions;
g) adaptable to a wide variety of soil and climatic conditions;
h) compete well for soil moisture and nutrients; and
i) possess genetic adaptability.

Management of invasive plants and noxious weeds in Millard County is aimed at reducing the spread of undesirable species and protecting the integrity of native and desirable non-native/naturalized plant communities. Each year, the County allocates a considerable budget to fund weed management activities on private lands and support cooperative and coordinated weed management on federal and state lands. The County practices and supports an integrated management approach to controlling invasive plants and noxious weeds through close coordination and cooperation with other federal, state, and local entities, and private landowners through a cooperative weed management association

The State of Utah, through the Commissioner of Agriculture and Food under the Utah Noxious Weed Act has published a list of designated noxious weed species. Utah's noxious weeds are classified below. Technical names may be obtained from http://ag.utah.gov/divs-progs/50-plants-and-pests/hay-grain-seed/599-noxious-weed-list.html.

Class 1A: Early Detection Rapid Response (EDRR) Watch List Declared noxious and invasive weeds not native to the state of Utah and not known to exist in the State that pose a serious threat to the state and should be considered as a very high priority.

Class 1A: Early Detection Rapid Response (EDRR) Weeds	
Common crupina	African rue
Small bugloss	Mediterranean sage
Spring millet	Ventenata (North Africa grass)
Syrian beancaper	Malta star thistle
Plumeless thistle	

Class 1B: Early Detection Rapid Response (EDRR) Declared noxious and invasive weeds not native to the State of Utah that are known to exist in the state in very limited populations and pose a serious threat to the state and should be considered as a very high priority.

Class 1B: Early Detection Rapid Response (EDRR) Weeds	
Camelthorn	Japanese knotweed
Garlic mustard	Blueweed (Vipers bugloss)
Purple star thistle	Elongated mustard
Goats rue	Common St. Johnswort
African mustard	Oxeye daisy
Giant reed	Cutleaf vipergrass

Class 2: Control Declared noxious and invasive weeds not native to the state of Utah that pose a threat to the state and should be considered a high priority for control. Weeds listed in the control list are known to exist in varying populations throughout the state. The concentration of these weeds is at a level where control or eradication may be possible.

Class 2: Control Weeds	
Leafy spurge	Dyers woad
Medusahead	Yellow star thistle
Rush skeletonweed	Yellow toad flax
Spotted knapweed	Diffuse knapweed
Purple loosestrife	Black henbane
Squarrose knapweed	Dalmation toad flax

Class 3: Containment Declared noxious and invasive weeds not native to the State of Utah that are widely spread. Weeds listed in the containment noxious weeds list are known to exist in various populations throughout the state. Weed control efforts may be directed at reducing or eliminating new or expanding weed populations. Known and established weed populations, as determined by the weed control authority, may be managed by any approved weed control methodology, as determined by the weed control authority. These weeds pose a threat to the agricultural industry and agricultural products.

Class 3: Containment Weeds	
Russian knapweed	Quack grass
Hounds tongue	Jointed goat grass
Perennial pepperweed (Tall whitetop)	Bermuda grass
Phragmites (Common reed)	Perennial Sorghum spp.: Johnson Grass
Tamarisk (Saltcedar)	Sorghum almum
Hoary cress	Scotch thistle (Cotton thistle)
Canada thistle	Field bindweed (Wild Morning-glory).
Poison hemlock	Puncture vine (Goathead)
Musk thistle	

Class 4: Prohibited Declared noxious and invasive weeds, not native to the state of Utah, that pose a threat to the state through the retail sale or propagation in the nursery and greenhouse industry. Prohibited noxious weeds are annual, biennial, or perennial plants that the commissioner designates as having the potential or are known to be detrimental to human or animal health, the environment, public roads, crops, or other property.

Class 4: Prohibited Weeds	
Cogongrass (Japanese blood grass)	Scotch broom
Myrtle spurge	Russian olive
Dames Rocket	

Each county in Utah may have different priorities regarding specific State designated Noxious Weeds and is therefore able to reprioritize these weeds for their own needs. Counties may also designate noxious weed for their specific County. As of January 2017, bull thistle has been designated as a county noxious weed by Millard County.

The County Weed Specialist coordinates weed control activities among the county weed organizations and the agricultural field representatives. Surveys of serious weed infestations are conducted and control programs are developed through the county supervisors, county weed boards, and various landowning agencies. The weed specialist and the inspectors work continually with extension and research personnel in encouraging the use of the most effective methods to control the more serious weeds.

Certain weed eradication methods, such as herbicide spraying, must be consistent with federal and state laws governing the use of chemicals. Federal agencies may also be under additional regulations regarding vegetation treatments and the use of herbicides on federal lands. The use of certified weed-free hay is a common guideline implemented to control the spread of noxious weeds and is consistent with the Forest Service's and BLM's rangeland health standards.
For vegetative purposes, the use and perpetuation of native species is often cited as a priority. However, naturalized and non-intrusive, non-native species are often more ecologically or

economically feasible and provide greater resource optimization and benefit. In all cases, the use of weed-free seed in reclamation and rehabilitation projects is standard practice.

Invasive plants and noxious weeds on public lands in the planning area are typically managed by integrated weed management practices including hand methods, mechanical removal, or herbicide application.

Invasive plants and noxious weeds in the County are generally:

a) widespread invasives covering large areas of the County (e.g. pinyon/juniper woodlands, tamarisk, rabbitbrush, etc.), or
b) site specific infestations with localized impact.

Agency vegetation projects have focused on larger scale invasives that have crowded out more desirable vegetation. Cooperative weed management efforts have concentrated on eradication of site specific noxious weeds that have the potential to spread rapidly.

Overall, areas that have been actively managed to prevent the spread of noxious weeds and invasive species have demonstrated a decrease in prevalence, indicating that current management techniques are effective at controlling outbreaks of invasive plants and noxious weeds. Early detection, rapid response, integrated management and interagency cooperation have been effective in helping eliminate new infestations and reducing existing ones. Introductions of new infestations associated with ground disturbing activities (recreation areas, fire, rights-of-way, etc.) are controlled through implementation of best management practices and appear to be reasonably effective.

Need for Management Change

1. Noxious weed infestations are generally known on private lands in the County. Additional inventory needs to be completed to identify all noxious weed infestations on state and federal lands in the County.

2. Due to the vastness and remoteness of federal lands in Millard County, all noxious weed infestations on federal lands need to be identified and mapped with GPS/GIS technology.

3. Significant efforts to restore desirable vegetation in areas dominated by native invasive species need to be implemented.

4. Land managers need to eradicate all noxious weed within their jurisdiction and prevent additional infestations. Native and non-native invasives need to be replaced with desirable pant communities, consistent with ecologic site descriptions.

5. In Sage-obligate management areas, land managers need to prioritize aggressive eradication of all noxious weeds and replacement of invasive species with desirable vegetation.

6. All herbicides and treatments authorized for use on private lands need to be available for use on federal lands with the same restrictions that apply to the general public.

7. Cheatgrass needs to be controlled with the most efficient techniques possible including adaptive livestock grazing, herbicides, biologic control and any other legal method.

8. Noxious weeds and invasive species, especially cheatgrass, that are inconsistent with historic vegetative communities are a visible impact of man; and lands occupied by such species are not:
   a) natural, or
   b) possessing wilderness characteristics, and/or suitable for wilderness study areas (WSA).

9. Where cheatgrass or other fire susceptible invasive species occupy large land areas, fire breaks need to be created to limit wildfire extent.

10. Conditions which promote infestation by noxious weeds and invasive species, such as bare ground, be minimized through active and adaptive management.

Desired Future Conditions

Millard County desires:

a) All noxious weed infestations on federal lands be identified and mapped prior to January 2020.

b) Land managers significantly increase efforts to eradicate noxious weeds and replace invasive species with desirable historic plant communities.

c) Native and non-native invasive plants replaced with desirable pant communities, consistent with ecologic site descriptions. Class II and Class III pinyon/juniper woodlands are reduced by 2.5% based on a 10 year rolling average.

d) Sage-obligate management areas are aggressively treated to eradicate all noxious weeds and replace invasive species with desirable vegetation.

e) All herbicides and treatments authorized for use on private lands are available for use on federal lands with the same restrictions that apply to the general public.

f) The most efficient techniques possible are used to control cheatgrass, invasive and noxious weeds.

g) Fire breaks are created in cheatgrass and other fire susceptible habitats to reduce the impacts of future wildfire.

h) Noxious weeds and invasive species, especially cheatgrass, that are inconsistent with historic vegetative communities are recognized as a visible impact of man; and lands occupied by such species are designated as not:

i) natural, or

ii) possessing wilderness characteristics, and/or suitable for wilderness study areas (WSA).

i) Conditions which promote infestation by noxious weeds and invasive species, such as bare ground, be minimized through active and adaptive management.

j) Federal agencies spend an amount on noxious weed control on their lands in proportion to the acres under their control as Millard County does for private lands under County control.

k) 40% ground cover is retained in areas of prescribed fire and 60% recruitment is achieved by the next rainy season.

l) Lands impacted by wildfire are reseeded with desirable native and/or non-native plant communities prior to infestation by noxious or invasive weeds.

Finding, Policies, Goals & Objectives

Objective: Reduce the percentage of invasive or noxious weeds in relation to desired plant populations.

Finding & Policy: Federal lands occupy a significantly larger acreage than private lands in the County and are considerably less observable, so undetected propagation of noxious weeds is a significant threat on federal lands. All noxious weed infestations on federal lands shall be identified and mapped prior to January 2020.

Policy & Goal: Aggressive action to remove all noxious weeds on state and federal lands shall be commenced prior to January 2020.

Policy: To the maximum extent allowed by law, Integrated Weed Management using the full complement of treatment methods shall be used for invasive species and noxious weed control.

Treatment methods shall be compatible with maintaining special status plant species where applicable.

Finding & Policy: Noxious weeds and invasive species, especially cheatgrass, that are inconsistent with historic vegetative communities are recognized as a visible impact of man; and lands occupied by such species are designated as not:

i) natural, or

ii) possessing wilderness characteristics, and/or wilderness study areas (WSA).

Finding & Policy: Climate cycles have significantly less impact on noxious weeds than the actions of land managers. NEPA actions including analysis of noxious weeds and invasive species shall clearly identify uncertainties between alternatives that consider climate cycles and active management. Active, aggressive management of noxious weeds and invasive species shall be prioritized above passive actions, unless proven less effective by objective science.

Policy, Goal & Objective: Class II and Class III pinyon/juniper woodlands shall be reduced by 2.5% based on a 10 year rolling average.

Policy: Aggressive action to remove all noxious weeds on state and federal lands shall be commenced prior to January 2020.

Policy: Land managers shall prioritize eradication of noxious weeds and replacement of invasive species with desirable vegetation communities in Sage-obligate management and special status species areas prior to restricting resource and land uses.

Policy: All herbicides and treatments authorized for use on private lands shall be available for use on federal lands with the same restrictions that apply to the general public.

Finding & Policy: Noxious weeds, including cheatgrass, are invasive species that can have severe detrimental impacts on land health and productivity. Land managers shall employ the most efficient techniques legally available to control invasive and noxious weeds.

Policy: Federal agencies shall cooperate with Millard County to develop preventative fire breaks along roads, powerlines and other human and natural disturbances in areas infested by cheatgrass and other fire susceptible fuels.

Policy: Conditions which promote infestation by noxious weeds and invasive species, such as bare ground and post fire vegetative loss shall be minimized through active restoration and seeding with native and non-native vegetation communities consistent with ecologic site

descriptions.

Policy & Goal: Federal agencies spend an amount on noxious weed control on their lands in proportion to the acres under their management as Millard County does for private lands under County control. Agency Expenditure = (Federal agency acres/private acres) x Millard noxious weed expenditures per acre.

Goal & Objective: In areas subject to prescribed fire land managers shall retain 40% ground cover and achieve 60% ground cover prior to the next rainy season.

Policy: Lands impacted by wildfire shall reseeded with desirable native and/or non-native plant communities prior to infestation by noxious weeds or invasive species.

References:

Ponderosa Pine, Mixed Conifer, and Spruce-fir Forests, USDA Forest Service Gen. Tech. Rep. RMRS-GTR-202, Michael A. Battaglia and Wayne D. Shepperd, 2007

Utah Forest Types: An Introduction to Utah Forests, Darren McAvoy, Mike Kuhns, Justin Black, May, 2012

Utah Noxious Weed Act, U.C.A. 4-17

http://ag.utah.gov/divs-progs/50-plants-and-pests/hay-grain-seed/599-noxious-weed-list.html, February 18, 2017

The Utah Strategic Plan for Managing Noxious and Invasive Weeds, Utah Weed Control Association, 2004

2.7 SPECIAL STATUS SPECIES

Introduction

Special status species is the term that Millard County uses to distinguish the wildlife and plant species that the County considers to be threatened, endangered or worthy of special actions to recover or maintain population viability. While each of these species has value in its own right, and collectively play an important role in maintaining ecological integrity, the practical reason for protective action is to eliminate the possibility of a species being listed under the federal Endangered Species Act (ESA). When a species is listed under the ESA, the action generally

results in restrictions that have an adverse effect on the productivity of impacted lands and the health safety and welfare of the public.

Determining Millard County's Special Status Species is a fundamental first step in addressing special status species management. Sources used to identify the County's Special Status Species List are:

Utah Sensitive Species List The Utah Sensitive Species List was prepared by the Utah Division of Wildlife Resources (DWR) pursuant to State of Utah Administrative Rule R657-48 and includes "all wildlife species for which there is credible scientific evidence to substantiate a threat to continued population viability." Species on this list are identified as "Wildlife Species of Concern." Included are fish, amphibians, reptiles, birds, mammals and mollusks designated as any of the following:

1. Federal candidate species (as determined by the US Fish and Wildlife Service (FWS)),

2. Federal threatened species (as determined by the FWS),

3. Federal endangered species (as determined by the FWS),

4. Conservation agreement species (subject to official conservation agreements between the U. S. Government and the State of Utah), and

5. Utah wildlife species of concern (species where the State of Utah has determined that conservation actions be taken to preclude their listing as candidate, threatened or endangered).

The Utah Sensitive Species List can be viewed at dwrcdc.nr.utah.gov/ucdc/ViewReports/sslist.htm. A list, also prepared by the DWR, of sensitive species in Millard County can also be viewed at that location. All Utah Sensitive Species that occur in Millard County are considered to be Millard County Special Status Species.

Utah Wildlife Action Plan The DWR's Utah Wildlife Action Plan's list identifies "Species of Greatest Conservation Needs." The Wildlife Action Plan analysis focused on three fundamental factors:
1) the likelihood of an ESA listing,
2) the consequences of listing, and
3) the potential for influencing a listing

For a description of how the species of greatest conservation needs were determined see the Wildlife Action Plan (wildlife.utah.gov/Utah.WAP.pdf). All Millard County species identified in the Wildlife Action Plan are considered to be Millard County Special Status Species.

Candidate, Threatened and Endangered Species

Candidate, threatened and endangered species listed by the U.S. Fish and Wildlife Service under the ESA are included on the Millard County list of Special Status Species. As of January 2017, no ESA listed wildlife species exist in Millard County.

Endangered, Threatened and Candidate Plants

Plant species that the FWS has listed as endangered or threatened species or has designated as candidate species that are native to and are known to be present in the County are considered to be a Millard County Special Status Species. Utah's DWR does not manage plants except as a component of habitat for wildlife, and plants are not included in the State of Utah Sensitive Species List. ESA plants are referenced in the Utah Wildlife Action Plan but they are not specifically included on the list of Species of Greatest Conservation Needs. Millard County contains only one ESA listed plant species.

Federal Land Management Agency Sensitive Species The Bureau of Land Management and the U. S. Forest Service maintain sensitive wildlife species and sensitive plant species lists. Additionally, the Forest Service has a list of management indicator species (MIS) that, while not necessarily sensitive or vulnerable, do represent the types of species present in various vegetation associations, and the Forest Service considers them worthy of special management attention. A comparison of BLM and Forest Service sensitive species for Millard County indicates that all of these species are also on one of the two State lists described above. Consequently, there is no need to duplicate the State's species by including BLM or Forest Service sensitive species on the County list of special status species.

Conservation Agreement Species Conservation agreement species refers to wildlife and fish species that are the subject of intergovernmental management agreements. In Millard County two conservation agreement species are fish, one is an amphibian, and the other is a bird (Southern Leatherside Chub, Least Chub, Western Toad, and the Northern Goshawk). All conservation agreement species are included on the Millard County list of Special Status Species.

Incidental Occurrence It is possible that species identified in one or another sensitive species list, but not identified as occurring in Millard County, may at times be found in Millard County as ranges shift and individuals make incidental or temporary visits due to weather events or other causes. These species are not included in the Millard County List of Special Status Species.

Introduced / non-essential experimental populations (e.g. the California Condor) Introduced species are often classified as a "non-essential experimental populations." Regulatory restrictions are not as intrusive for a non-essential experimental populations compared to the regulations for native and non-experimental listed species. Introduced and non-essential experimental species are included in Millard County's list special status species on a case by case basis.

For example, the California Condor is included on the DWR list of Species of Greatest Conservation Needs (as an experimental population), but is not on DWR's Wildlife Species of

Concern list. Introduced and non-essential species may be brought into areas adjacent to Millard County and the species may occasionally pass through the County on a temporary basis. But, given their transitory presence, vague classification and less restrictive regulatory status, non-essential species are not included on the Millard County special status species list.

Summary. To summarize, Millard County Special Status Species includes:

1. Native wildlife and plant species known to regularly be present in Millard County that the FWS has listed as endangered (FWSE), threatened (FWST) or designated as a candidate species (FWSC), except for experimental populations.

2. Native wildlife species identified on Utah Sensitive Species List as "Wildlife Species of Concern" and that the State recognizes as occurring in Millard County. (WSC)

3. Wildlife species identified in the Utah Wildlife Action plan as "Species of Greatest Conservation Needs" and that the State recognizes as occurring in Millard County. (USCN)

4. Wildlife species classified as conservation agreement species and known to be present in Millard County. (CAS)

5. Wildlife species identified by federal agencies as special status are included in Millard County's management when identified on Utah's list of Wildlife Species of Concern or Species of Greatest Conservation Needs. They may be included in the chart below to facilitate consistency and coordination as BLM Sensitive Species (BLMSS) and Forest Service Sensitive Species (FSSS)

Current Setting

The following species are considered Millard County Special Status Species:

Common Name	**Scientific Name**	**State Status**	**Group**
American White Pelican	Pelecanus erythrorhynchos	WSC	Bird
Bald Eagle	Haliaeetus leucocephalus	WSC	Bird
Bifid Duct Pyrg	Pyrgulopsis peculiaris	WSC	Mollusk
Big Free-tailed Bat	Nyctinomops macrotis	WSC	Mammal
Bonneville Cutthroat Trout	Oncorhynchus clarkii utah	CAS	Fish
Burrowing Owl	Athene cunicularia	WSC	Bird
California Floater	Anodonta californiensis	WSC	Mollusk
Columbia Spotted Frog	Rana luteiventris	CAS	Amphibian

Dark Kangaroo Mouse	Microdipodops megacephalus	WSC	Mammal
Ferruginous Hawk	Buteo regalis	WSC	Bird
Fringed Myotis Bat	Myotis thysanodes	WSC	Mammal
Golden Eagle	Aquila chrysaeos	WSC	Bird
Greater Sage-grouse (Minimal Habitat exists for this species in Millard County. There are no known populations in Millard County.)	Centrocercus urophasianus	WSC	Bird
Kit Fox	Vulpes macrotis	WSC	Mammal
Least Chub	Iotichthys phlegethontis	CAS	Fish
Long-billed Curlew	Numenius americanus	WSC	Bird
Longitudinal Gland Pyrg	Pyrgulopsis anguina	WSC	Mollusk
Northern Leopard Frog	Rana pipiens	WSC	Amphibian
Northern Goshawk	Accipiter gentilis	CAS	Bird
Pygmy Rabbit (This species, although occurring on this list, is not found in Millard County. There are no known populations within Millard County.)	Brachylagus idahoensis	WSC	Mammal
Short-eared Owl	Asio flammeus	WSC	Bird
Southern Leatherside Chub	Lepidomeda aliciae	WSC	Fish
Sub-globose Snake Pyrg	Pyrgulopsis saxatilis	WSC	Mollusk
Utah Prairie-dog (This species, although occurring on this list, is not found in Millard County. There are no known populations within Millard County.)	Cynomys parvidens	FWST	Mammal
Western Toad	Bufo boreas	WSC	Amphibian

As depicted above, the current Millard County Special Status Species list contains 25 species, all of which are wildlife species. The wildlife species include six (6) mammals, nine (9) birds, three (3) amphibians, four (4) mollusks, and three (3) fish. Only one (1) of the species on the County's list – the Utah Prairie Dog is on the federal ESA list. This species, although included on this list, is not found in Millard County. There are no known populations within Millard County. Twenty (20) of the species are on the DWR Sensitive Species List as Wildlife Species of Concern. Four (4) species are Conservation Agreement species. Many Millard County Special Status Species are on two or more of the above lists, when agency lists are included.

The Millard County list does not include any plant species. Special status plants, when present, are generally located on BLM, SITLA or Forest Service lands and are monitored regularly by state or federal botanists. On occasion the presence of a rare plant requires change in a specific public land activity, but not often. The ESA places no regulatory obligations on private property owners whose lands contain a listed plant species. In addition to Millard County's listed species, BLM and Forest Service have identified 4 species that are a concern to them, and the UDWR Natural Heritage Program has identified approximately 30 more plants in Millard County that may be of concern at some point in the future. None of these additional plant species identified by BLM, Forest Service or UDWR merit protection.

Of the four (4) Conservation Agreement species on the special status species list, two (2) are fish and one (1) is a bird (the Northern Goshawk) and one (1) is an amphibian. The Northern Goshawk, the only bird Conservation Agreement species, is one of the most widespread species in Millard County's mature forests, and is considered to be of special concern due to the adverse effect of Forest Service goshawk management prescriptions on timber harvest.

All of the species on Millard County List of Special Status Species are being managed for recovery or sustainability by federal land management agencies and the State and are subject to various levels of Recovery and Conservation Plans implemented by Millard County and other entities. Future ESA listed species – if any - will have recovery plans prepared. All conservation agreement species have conservation agreements and strategies, which are similar to recovery plans but not as detailed. Other Millard County Special Status Species generally do not have species-specific management plans. However, they are typically considered in management plans prepared by Forest Service and BLM units within Millard County.

ESA recovery plans are typically prepared by the FWS, though plans prepared by a state or other entity may be adopted as "functional equivalents." Sometimes multiple species plans are prepared, but none for Millard County species. While conservation agreement and strategy documents are not as detailed as recovery plans, and do not include recovery criteria, they do provide targeted conservation strategies and the interagency nature of these agreements helps to ensure implementation.

Specific conservation plans have not been prepared for several species on the County's list of Special Status Species. All of these are species from the State's Sensitive Species List and Wildlife Action Plan that do not have a direct federal connection as an ESA listed species or cooperative agreement species. A few of these species may have local area conservation plans, usually prepared by federal land managers, but most do not. For these species the County considers the Utah Wildlife Action Plan to be the best available surrogate plan until Millard County completes a county specific plan. As plans are prepared for these species these plans will be evaluated by the County and, if suitable, recognized by the County. Following is the list of Millard County Special Status Species, along with County's determination regarding the best available conservation plan for each species.

Common Name	Scientific Name	Recovery or Conservation Plan
American White Pelican	Pelecanus erythrorhynchos	Utah Wildlife Action Plan
Bald Eagle	Haliaeetus leucocephalus	ESA recovery plan
Bifid Duct Pyrg	Pyrgulopsis peculiaris	Utah Wildlife Action Plan
Big Free-tailed Bat	Nyctinomops macrotis	Utah Wildlife Action Plan
Bonneville Cutthroat Trout	Oncorhynus clarkii Utah	Conservation agreement and strategy
Burrowing Owl	Athene cunicularia	Utah Wildlife Action Plan
California Floater	Anodonta californiensis	Utah Wildlife Action Plan
Columbia Spotted Frog	Rana luteiventris	Conservation agreement and strategy
Dark Kangaroo Mouse	Microdipodops megacephalus	Utah Wildlife Action Plan
Ferruginous Hawk	Buteo regalis	Utah Wildlife Action Plan
Fringed Myotis Bat	Myotis thysanodes	Utah Wildlife Action Plan
Golden Eagle	Aquila Chrysaeos	Utah Wildlife Action Plan
Greater Sage-grouse (Minimal Habitat exists for this species in Millard County. There are no known populations in Millard County.)	Centrocercus urophasianus	ESA recovery plan, State & County recovery plan
Kit Fox	Vulpes macrotis	Utah Wildlife Action Plan
Least Chub	Iotichthys phlegethontis	Conservation agreement and strategy
Lewis's Woodpecker	Melanerpes lewis	Utah Wildlife Action Plan
Long-billed Curlew	Numenius americanus	Utah Wildlife Action Plan
Longitudinal Gland Pyrg	Pyrgulopsis anguina	Utah Wildlife Action Plan
Northern Leopard Frog	Rana Pipiens	Conservation agreement and strategy
Northern Goshawk	Accipiter gentilis	Conservation agreement and strategy, USFS forest plan amendment
Pygmy Rabbit (This species, although occurring on this list, is not found in Millard County. There are	Brachylagus idahoensis	Utah Wildlife Action Plan

no known populations within Millard County.)		
Short-eared Owl	Asio flammeus	Utah Wildlife Action Plan
Southern Leatherside Chub	Lepidomeda aliciae	Utah Wildlife Action Plan
Sub-globose Snake Pyrg	Pyrgulopsis saxatilis	Utah Wildlife Action Plan
Utah Prairie-dog (This species, although occurring on this list, is not found in Millard County. There are no known populations within Millard County.)	Cynomys parvidens	ESA recovery plan, State Recovery Plan
Western Toad	Bufo boreas	Utah Wildlife Action Plan

Newer recovery plans for ESA species include range maps and critical habitat for the species. Conservation agreement and strategy documents typically do not include range maps and those that do have maps are quite general. Range maps are very general or non-existent for other Special Status Species. Distribution maps are finer in scale and delineate specific or general habitat locations. Except for fish species and species with limited ranges, these maps are generally lacking. In some cases land management agencies maintain finer scale habitat maps, but these tend to be project-area specific. Where there is concern that the location of a species may place it at risk, researchers may purposely generalize habitat maps. These maps may represent range as large, general polygons or depict presence/absence at the county-wide level, with the map indicating whether the species occurs in a county but not where in that county. While helpful for landscape level planning, these general distribution maps are not particularly useful for species conservation, management or project-level applications. Except for species and areas where site-level investigation has occurred, existing maps are largely inadequate or non-existent.

The Utah Natural Heritage Program maintains distribution and species occurrence data for some ESA listed species. That program also maintains a crucial habitat unit assessment tool. These data can be found at http://dwrcdc.nr.utah.gov/ucdc/downloadgis/disclaim.htm.

Viability is the essential measure of whether a species or population is sustainable or under significant threat. There is no single formula for determining species or population viability. Rather, several specific biological determinations are involved, and the final call on species viability represents a consensus of scientific opinion, not a guarantee of results. Some agencies have compiled a report that describes the viability of species found in that agency's boundaries. Such reports offer considerable information concerning species viability in specific areas.

With approximately 75% of Millard County's land base in federal management, with sensitive species management plans in place for all federal lands, and with the State and County taking an

active role in sensitive species habitat conservation on both public and private lands, the likelihood of further decline or extinction for Millard County populations of these species is slight and species viability is not subject to significant threats.

Over the past several decades the pressure for listing of species and designation of critical habitat under the Endangered Species Act has been a prominent theme in Millard County, even at a time when there is very little evidence that some special status species exist in the area or are actually in decline. The increased pressure for ESA-related designations has come at a time when there has been a significant increase in litigation and political pressure aimed at closing roads, stopping grazing, halting timber harvest, and prohibiting energy exploration and extraction, all of which significantly harm the County's economy, community stability, social structure, and lifestyle. This increased attention to sensitive species at a time when multiple-use activities on public lands are under attack is not coincidental. Special interest groups – under the guise of conservation - use the ESA as a tool to raise funds and convert multiple-use land management to single use management. While this strategy may be used elsewhere, the intensity of its use in Millard County and surrounding southern Utah area is particularly acute.

Since 1996 in some rural Utah counties, public lands grazing has decreased by 70%, timber harvest has decreased by 90%, and energy production has nearly disappeared. Largely as a result of continuing attacks on the traditional activities that support local economies, population growth has slowed or stopped. County-wide the school population is often in decline as young families leave to find jobs in larger communities, particularly in communities where the greatest dependence on natural based industries exists.

Endangered species have been a central factor in almost all of the efforts to halt grazing, logging, and energy production. Proving that a species is not present and/or would not be affected by a proposed development is extremely difficult, and demonstrating species viability is highly complex and open to criticism. Special interest groups have frequently used species-related arguments in their extensive appeals and lawsuits. These appeals and lawsuits are the major impediment to properly managing resources that are resistant and resilient to fire and a significant reason that timber production has declined so drastically over the past several years. .

Pressures for listing of species and designation of critical habitat have been expanding, while site specific inventories, habitat designations and biologic assessments have become increasingly inaccurate. Discretionary funds intended for species conservation and recovery have been diverted to defend lawsuits and appeals, taking money away from critical on-the-ground species recovery actions.

The negative impact of special status species on Millard County communities is compounded by agency movement toward landscape level and rapid ecoregion management. Federal management actions are increasingly influenced by generalized studies that lack site specific accuracy and are driven by political pressure. State and local governments, although most impacted by the decisions, most familiar with local conditions, possessing much of the expertise,

and authorized by federal laws to provide the baseline for management of land, water, and species, are largely ignored.

Need for Management Change

1) Active management needs to be implemented to conserve and recover special status species in Millard County. Secretive, and prescriptive approaches need to be replaced with open and aggressive proactive recovery strategies.

2) Land managers need to aggressively and actively manage lands to delist species currently on the ESA list of candidate, threatened and endangered species and to prevent other species form being listed.

3) Land managers need to aggressively and actively manage lands to improve populations and habitats to remove species from Utah's Wildlife Species of Concern and Species of Greatest Conservation Needs lists and from BLM's and Forest Service's special status species lists.

4) In coordination with Millard County, conservation agreements need to be reviewed and revised to bring them into consistency with Millard County's plan, program and policy for species managed under such agreements.

5) Recovery teams dominated by federal officials focused on research and regulatory strategies need to be replaced with local officials that will implement structural and non-structural improvements that will conserve, recover and increase special status species populations and habitat.

6) Accurate maps depicting range, viable habitat, critical habitat, population centers and other data needs to be developed. Mapping should focus on watershed or local population scales rather than ecoregions or total range of the targeted species.

7) Local conservation strategies and plans need to be developed for each special status species in Millard County.

8) Where habitat/populations cross agency or political boundaries, conservation efforts should be coordinated at the local level.

9) Critical, crucial, priority and other habitat designations need to be corrected to conform to target species life cycle requirements.

10) Species managers need to make annual counts of special status species under their jurisdiction to evaluate conservation and recovery progress.

11) Existing management plans for the northern goshawk threaten forest health and promote conditions that are not resistant and resilient to fire. Northern goshawk populations and habitats need to be inventoried; and conservation plans need to be revised to provide for healthy forests within 5 years or at the next forest planning cycle, whichever occurs first.

12) Federal agencies need to share annual counts and recovery information with Millard County to document progress toward conservation/recovery directives.

13) Lands that do not currently contain special species populations or habitat meeting desired life cycle requirements need to be released from critical, crucial or priority habitat designations.

14) The existing system of ESA species, species of concern, species of greatest conservation need, and agency special status species is confusing and cumbersome. A single system needs to be developed to simplify recovery and house all conservation plans under one agency.

15) Threats and prioritizations outlined the Utah Wildlife Action Plan need to be re-evaluated for site specific conditions in Millard County

Desired Future Conditions

The County desires that:

a) The need for future listings under the Endangered Species Act is precluded through the use of proactive habitat enhancements and sound resource management.

b) Currently listed special status species are recovered to the point they are delisted and their future as viable populations is secured.

c) The Utah Wildlife Action Plan is used as a principal guide for implementing species conservation strategies until Millard County develops individual conservation plans for the various species.

d) When developed, Millard County's species conservation plans replace the Utah Wildlife Action Plan as a principal guide for implementing species conservation strategies in Millard County.

e) Threats and prioritizations outlined the Utah Wildlife Action Plan be re-evaluated for site specific conditions in Millard County.

f) Restrictions on land use associated with special status species are removed from lands that do not contain:

i) permanent populations or
ii) high value habitat of the targeted species.

g) Conservation/recovery plans and habitat evaluation guides are developed for each special status species in Millard County.

h) Existing conservation recovery plans and critical, crucial and priority habitat designations are reviewed and revised to reflect only those lands suitable for species recovery and long term conservation.

i) Goshawk management plans for forested lands in Millard County are amended to prioritize;
first, healthy forests that are resistant and resilient to fire;
second, management of resources for goshawk conservation.

j) Any current goshawk amendment for national forests is discarded and replaced with an effective plan that meets Millard County's priorities for the beneficial use of land and natural resources and goshawk conservation.

k) Special status species conservation and recovery is managed in concert with traditional multiple-uses such as livestock grazing, timber harvest and energy development to promote the productive and enjoyable harmony between man and his environment.

l) Decisions regarding management of special status wildlife and plant species and their habitats are made based on the best available, site specific, biological and social scientific knowledge and information.

m) Critical habitats and recovery plans are not based on landscape or ecoregion level analysis but are based on local population and habitat conditions.

n) Scientifically accurate and scale-appropriate counts, data and maps concerning the location of special status species are available to assist with site-level analysis.

o) Spurious attempts to halt responsible land use through species listings, designation of critical habitats and other ESA and sensitive species-related strategies are precluded through active management emphasizing habitat vitality and vigor.

p) Millard County is recognized as a full and equal partner with state and federal agencies in the management of special status species and habitats.

q) The County's jurisdictional authority and expertise concerning land use, planning, zoning, site specific conditions, habitat, socio-economics, cultural impacts and other subjects is recognized, accepted and acknowledged by other levels governments.

r) A single special status species list and a single repository for conservation plans are developed for all governmental entities in Millard County.

SPECIAL STATUS WILDLIFE

Findings, Policies, Goals & Objectives

Policy: In accordance with its police power authority, it is the policy of Millard County to use its land use planning and zoning authority to designate plans, programs and policies on private and public lands to ensure conservation and recovery of Millard County's special status species.

Policy: By mandating Millard County complete a Resource Management Plan which includes special status species, the Utah Legislature recognized and established the County's role in managing special status species.

Policy, Goal & Objective: Special status species conservation and recovery is managed in concert with traditional multiple-uses such as livestock grazing, timber harvest and energy development to promote the productive and enjoyable harmony between man and his environment.

Policy, Goal & Objective: Recovery of special status species and precluding listing of other at risk species through active management, proactive habitat restoration and sound resource use is the central policy, goal and objective of Millard County's special status species program. It is Millard County's goal to have all special status species recovered to the point of removing them from federal, state and local lists prior to 2026.

Policy: Millard County will support and participate in reasonable actions that will keep species from special status listing and will remove existing special status species from special management in the County.

Policy: Millard County will take necessary actions to conserve and recover special status species consistent with its authorities and while exercising jurisdiction to protect the health, safety and welfare of the residents of the County.

Policy: Millard County will be a full and active partner in conservation, recovery, planning and implementation actions relating to special status species.

Policy: To the maximum extent allowed by law, species and land managers shall be consistent with Millard County special status species plans programs and policies. Modifications shall be approved by the Millard County Commission. Species and land managers shall incorporate modifications in their programs at the earliest possible date, not to exceed two years.

Finding & Policy: Plant and wildlife species not included on Millard County's special status species list but a) designated by BLM or the Forest Service as sensitive or b) identified by the UDWR Natural Heritage Program as being of concern do not merit special protection. Best management practices which employ avoidance/minimization/mitigation protocols shall apply unless other species-specific conservation plans are developed in coordination with Millard County and approved by the Millard County Commission.

Finding & Policy: Millard County shall be included in all NEPA analysis impacting special status species to the maximum extent allowed by law. Failure to Coordinate with Millard County and failure to fully include the County in NEPA actions is a violation of federal law.

Policy: Management of special status species and habitats to meet perceived native conditions for some arbitrarily selected time is inconsistent with Millard County's Resource Management Plan. Management actions shall be based on current recovery requirements and settings

Policy, Goal & Objective: Prior to January 31st each year, land and species managers shall provide Millard County with a progress report for each Millard County special status species. The reports shall include but not be limited to:

1) current population counts;
2) population trends;
3) critical habitat acreages meeting species life cycle needs;
4) critical habitat acreages not meeting species life cycle needs;
5) progress toward recovery/delisting;
6) challenges to recovery/delisting;
7) accomplishments and proposed actions; and
8) other maps, data and information needed to describe the condition of the species.

Policy: To the maximum extent allowed by law, species and land managers shall modify existing conservation, recovery or management plans and critical, crucial and priority habitat designations to conform with Millard County's special status species plans, programs and policies as contained herein prior to January 1, 2020 or their regular planning review process, whichever occurs first.

Goal & Objective: Establish conservation/recovery plans and habitat evaluation guides for each of Millard County's special status species.

Policy: The Utah Wildlife Action Plan shall be used as a principal guide for implementing species conservation strategies until Millard County develops individual conservation plans for the various special status species in the County. When developed, Millard County's species conservation plans shall replace the Utah Wildlife Action Plan as the principal guide for implementing species conservation strategies in Millard County.

Finding & Policy: Approximately 85% of the land in Millard County is in federal or state ownership; there are no urban lands in Millard County; and less than two tenths of one percent of the land is located in a city, town or municipality. Private lands are primarily occupied by vegetated fields or rangelands. Threats associated with urban development and housing are not applicable in Millard County unless verified by site specific studies demonstrating significant adverse impact to the targeted species on a county-wide or a state-wide basis.

Finding & Policy: Wildlife species, especially elk may impact health of aspen habitats. Where improper grazing is determined to be a threat to special status species in aspen habitat, site-specific studies will be conducted to determine the proportional impacts created by the various wildlife and livestock species. Any reduction in animal unit months for the various wildlife and livestock species shall be allocated on the same proportion as determined in the site specific study for the individual species.

Policy: Millard County's species specific conservation and recovery plans, policies and programs shall be included, analyzed and disclosed in all NEPA actions. Failure to include, analyze and disclose Millard County's species specific conservation and recovery plans, policies and programs to the maximum extent allowed by law is arbitrary, capricious and fails to provide a full range of reasonable alternatives.

Policy: Species and land managers shall focus conservation and recovery efforts on species included on Millard County's Special Status Species List. The initial list consists of a) ESA-listed or candidacy wildlife and plant species; b) wildlife species on the Utah Sensitive Species List; c) wildlife species on the Utah Wildlife Action Plan list; and d) wildlife with State/Federal cooperative conservation plans. Species and land managers shall not consider non-essential, experimental, occasional/temporary, or introduced species as special status.

Policy: Species and land managers shall conduct annual counts of Millard County's special status species within their jurisdiction. Where annual counts do not exist for the last five years or where annual counts are zero for five consecutive years, permanent populations of the individual

species are deemed to no longer exist in Millard County. Assuming a species exists in the County without verified counts in the previous 5 years is speculative, arbitrary and capricious.

Policy: It is the policy of Millard County that an area only be considered as critical, crucial, priority or other habitat for a special status species if the species has been documented as using the area on a recurring basis. Periods of sporadic use with unused intervals of more than two years shall be deemed unused. Exceptions may be granted on a case by case basis after presentation of all relevant facts.

Policy: Prior to implementing prescriptions for conservation and/or recovery of special status species, land and wildlife managers shall inventory proposed areas and verify the existence and condition of populations and habitat. Management prescriptions shall not be applied to lands that do not contain special status species populations or required habitat.

Policy: Restrictions on land use associated with special status species shall be removed from lands that do not contain permanent populations or high value habitat of the targeted species at the earliest possible date, not to exceed 1 year.

Finding: Federal land managers have:
a) failed to accurately map general, critical, crucial, and priority habitat for special status species,
b) incorrectly designated special status species habitat where the species is not present, and
c) ignored site specific conditions and special status species life cycle requirements to adopt generalized habitat polygons that are not consistent with objective science.

Finding: Habitat and crucial habitat mapping by state and federal agencies has no legal or regulatory meaning and generally depicts only the estimated range for the identified species. Mapping often includes areas that do not have biologic conditions necessary to support the species. Until state and federal maps are refined to accurately depict species habitat, the maps included in this RMP constitute the highest and best data available for site specific and landscape level planning.

Finding, Policy & Criteria: "Critical" and "Crucial" habitat shall be decisive for the success or failure of the local population of the designated species and shall meet the following criteria:

1. At least 85% of the Critical/Crucial habitat shall have permanent populations or annual seasonal populations of the designated species as confirmed by annual counts.

2. At least 85% of the Critical/Crucial habitat shall contain those physical or biological features essential to the conservation of the designated species. When a habitat evaluation guide exists for a designated species and habitat evaluation scores are less than

50%, the area shall be determined as not demonstrating those physical or biological features essential to conservation of the species, unless the area is subject to treatments which will improve the habitat score to at least 75% within two years.

3. Critical/Crucial habitat shall not be located within 100 feet of a State Highway or Class B County Road nor within 50 feet of a Class D Road or other motorized path, way or trail.

4. Critical/Crucial habitat shall not be located within 330 feet of a municipality, private land, human developments, or structural improvements.

5. Critical/Crucial habitat shall be located in natural environments consistent with ecologic site descriptions and shall not be located in habitats that have been heavily manipulated by man or are not consistent with recovery "in the wild."

Policy: Species and land managers shall focus species recovery efforts on federal lands that make up majority of the land base in Millard County. Private and state lands may be used for species recovery when such lands are consistent with native/wild habitat the landowner is supportive.

Policy: Only site specific, scientifically proven and verified data, consistent with the Data Quality Act, shall be used to make determinations regarding special status species and critical/crucial/priority habitat. Landscape level and ecoregion data is too broad to accurately depict topography, vegetation, habitat conditions and other key life cycle elements.

Policy: Special status species or populations that have recovered to the point where they are no longer at risk shall be promptly down-listed or de-listed. Land managers shall remove land use prescriptions as soon as possible after a species is down-listed or de-listed.

Policy: Millard County supports implementation actions consistent with County approved recovery plans and conservation agreements. Millard County encourages other governmental entities to take actions consistent with these plans. The County reserves the right to reject a plan or a component in a plan when the County determines that the plan/component fails to make adequate progress toward species conservation/recovery.

Policy: Species and land managers shall not rely on landscape level or ecoregion species inventories and mapping for site-specific analysis unless the data includes sufficient detail to accurately depict population distribution and habitat conditions for individual population centers in Millard County. The County also reserves the right to develop its own inventories and mapping if other data are deemed inadequate.

Finding: Special status species and associated habitat conditions are dynamic and are best managed under the principles of:

a) active management,
b) multiple-use / sustained yield, and
c) adaptive management.

Policy: Habitat restoration, including vibrant and vigorous vegetation, is the fundamental component for species conservation and recovery in Millard County. Restoration projects shall consider the natural variation of habitats in Millard County, and - where practical – include a mosaic of vegetation types crossing land ownership boundaries and interagency coordination. Projects that provide multiple benefits for a variety of uses, species and objectives are preferable to single benefit/single species strategies.

Policy: Millard County supports and encourages appropriate predator control to aid in the conservation and recovery of special status species.

Policy: Managers shall increase diversity in vegetation through optimization of native and non-native species to the maximum extent available by law. Limiting vegetative communities to "native species only" shall only be implemented when a) required by federal or state law, b) scientifically proven to optimize species recovery and/or desirable habitat conditions, c) consistent with Millard County's Resource Management Plan, or d) approved by the County Commission.

Goal: Prior to December 31, 2025, land managers will seek to have habitats supporting special status species meet the following seral stage ranges:

Early Stage	30% to 50%
Mid Stage	30% to 40%
Late Stage	Less than 25%

Policy: Class I pinyon/juniper stands impacting species conservation/recovery, species diversity or desired habitat conditions shall be eradicated in the most feasible manner possible at a rate of 1.0% annually. Based on a 10 year rolling average and consistent with desired ecological site descriptions, land managers shall restore at least 2.5% of the Class II and Class III pinyon/juniper woodlands having a median age of less than 200 years to sagebrush / semi-desert grassland vegetation communities.

Policy: Decadent special status species habitat shall have 1.0% treated annually.

Policy: Where grazing is the primary causal factor in preventing species recovery, wild horses

and burros grazing outside herd management areas and wild horses, burros and wildlife populations in excess of AML/population objectives shall be corrected within one year. Grazing restrictions, if any, shall be:
a) applied only after wild horses and burros are under AML and limited to herd management areas;
b) temporary and not more than 2 grazing seasons;
c) demonstrated to move the special status species toward significant recovery;
d) limited to the smallest area possible;
e) applied first to wild horses, burros and wildlife not meeting objective and second proportionally to wild horses, burros and wildlife meeting objective and permitted livestock.

Policy: Conservation and recovery actions employing prescriptive management strategies shall only be employed on a temporary basis and upon objective evidence that significant progress toward delisting will occur within

Objective: Establish coordinated efforts between Millard County, the State of Utah, the U.S. Forest Service, the Bureau of Land Management and other entities to implement large-scale, multi-year and multi-species habitat improvement projects to significantly move special status species toward delisting.

Finding and Policy: Millard County recognizes practical limits to financial and staff resources. Resource expenditure for special status species shall be commensurate with:
a) the risks of extinction,
b) the potential for action to have a beneficial effect on recovery, and/or
c) the potential for socio-economic disruption if action is not taken.
At present the species recognized of concern by the County is the Northern Goshawk. Priorities may change as recovery occurs.

Objective: Remove the Goshawk amendment from National Forest plans prior to January 1, 2020 or during the next regular planning cycle, whichever occurs first.

Finding and Policy: Conservation/recovery and livestock grazing are compatible activities. Vegetation treatments, water development, predator control, and other management actions are mutually beneficial and shall be allowed to the maximum extent practical.

Finding & Policy: Millard County finds Northern Goshawk are not at significant risk and implementation of reasonable vegetative, rangeland health and forest health strategies assures conservation of the species. Millard County opposes conservation/recovery plans, policies, and programs for special status species that are based on political or philosophical values and are not

consistent with the best available science, multiple-use/sustained yield management and existing conditions.

Finding: Millard County finds that sage-obligate populations and habitats are compatible with livestock grazing management which conforms to Millard County's Resource Management Plan. Practices, such as rotational grazing systems can enhance plant community vigor, suppress noxious weeds, and sustain diverse plant communities with forb components that benefit sage-obligate habitat.

Policy: PHMA and GHMA boundaries and classifications on federal lands are discretionary planning designations and shall comply with Millard County's plan, policy and program to the maximum extent allowed by law.

Policy: Prior to implementing livestock grazing restrictions for the purposes of conserving special status species and/or sage-grouse, federal agencies shall:

1. Implement effective vegetative manipulation to achieve sage-grouse and/or special status species habitat objectives and maintain or improve vegetation conditions or trends.

2. Design and implement grazing management systems that maintain or enhance herbaceous cover, height, and species diversity consistent with ecological site characteristics and potential.

3. Manage wildlife grazing of riparian areas, meadows, springs, and seeps in a manner that promotes vegetation structure and composition appropriate to the site.

Policy & Finding: Millard County supports agency efforts to convert undesirable pinyon/juniper woodlands to vegetative communities. Millard County opposes efforts to mischaracterize vegetative treatments as "deforestation" and finds such characterizations disingenuous and inconsistent with Millard County's plan, policy and program.

Policy: NEPA proposals found to be disingenuous or inconsistent with Millard County's special status species plan, policy or program shall be fully disclosed in accordance with 40 CFR 1500.

Policy: Millard County encourages and supports changes in procedures for implementing the Federal Endangered Species Act to make it more efficient, effective and supported by the general public, including changes that:

1. De-emphasize the punitive and divisive aspects of the Act and emphasize positive, mutually beneficial elements;

2. More fully embrace federal, state and local cooperation and coordination as the preferred means to implement the various elements of the Act, including but not limited to listing, critical habitat delineation, recovery planning, recovery action implementation, down-listing and delisting;
3. Convert the prevailing emphasis on a single species to multi-species, multiple benefit approach; and
4. Replace political/philosophical values and litigation with active, scientifically based strategies designed to optimize species conservation and recovery.
5. Remove incentives to use the Equal Access to Justice Act and the Department of Justice's litigant compensation fund to engage in sensitive species litigation.

Objective: Establish an agreement between the U.S. Government and the State of Utah to conduct a ten year ESA management experiment based on the five proposals enumerated above.

Policy: New water development for other multiple-use purposes shall be allowed in special species habitat when it may benefit the habitat or designated species.

Policy: Special status species shall not be introduced, translocated, augmented, or reestablished in Millard County without:
a) complying with Millard County's plans, programs and policies,
b) government to government coordination with Millard County, and
c) concurrence from the Millard County Commission.

Policy: Use of pesticides, rodenticides, herbicides and other viable techniques for the benefit of special status species shall be permitted to the maximum extent allowed by law as soon as they are approved for general use by the Food & Drug Administration or the EPA.

Policy: Surface disturbing and disruptive activities are allowed in special species habitat with the application of best management practices and avoidance/minimization/mitigation protocols.

Policy: Site stability, hydrologic function and biologic integrity shall be optimized in special status species habitat by allowing the use of native and non-native plant species for vegetation and reseeding treatments.

Policy: Focus management areas shall not be designated within ½ mile of private property without:
a) site specific NEPA,
b) detailed site specific and cumulative impact analysis for private properties within 1 mile of the focus management area,

c) detailed disclosures identified in 40 CFR 1502.22, and
d) government-to-government coordination with Millard County.

Policy: Surface-disturbing or disruptive activities and permanent facilities in mapped pygmy rabbit habitat (should any pygmy rabbit population be found to exist in the County) shall be allowed on a case-by-case basis.

Policy: All vegetation treatments shall be allowed in pygmy rabbit habitat (should any pygmy rabbit population be found to exist in the County) as needed with appropriate conservation measures.

Policy: Surface-disturbing or disruptive activities in special status species fish habitat shall be allowed with appropriate mitigation or if the action will benefit the species or habitat.

Policy: For the purposes of special status species and related analysis the following shall apply:

1. Immediate impact is defined as impact which lasts less than one year. Immediate impacts do not need to be mitigated, if desired conditions are achieved within the one year period.

2. Short term impact is defined as impact which lasts longer than one year but less than five years. Short term impacts do not need to be mitigated, if desired conditions are achieved within the five year period.

3. Long term impact is defined as impact which lasts more than five years but less than twenty years. Long term impacts do not need to be mitigated, if desired conditions are phased and achieved within a five year period of phased disturbance.

4. Permanent impact is defined as an activity which lasts longer than twenty years. Permanent impacts need to be mitigated or offset by other enhancements initiated within five years.

SPECIAL STATUS PLANTS

Findings, Policies, Goals & Objectives

Goal: Manage for the biological integrity of terrestrial and aquatic ecosystems to sustain or improve habitat for special status plants to promote ecosystem health and biodiversity.

Objective: Manage special status plant habitats to protect and actively promote the recovery of federally listed threatened, endangered, or candidate plant species, and to prevent the need for federal listing of Millard County sensitive status species under the Endangered Species Act.

Objective & Policy: Reduce environmental hazards, risks, and impacts to special status plants through conservation measures, avoidance, or implementation of best management practices. Use restrictions shall be avoided and if used shall be:
a) temporary,
b) limited to the smallest time period, and
c) limited to the smallest space necessary.

Objective: Increase available data through site specific inventories.

Policy: Millard County will support and implement current and future special-status species recovery and conservation plans, strategies, and agreements in coordination and consultation with the USFWS, the UDWR, and other state and federal entities.

Policy: The augmentation of special status plants is allowed on appropriate sites where populations are in decline. Prior to reintroduction, land managers shall ensure threats affecting the persistence of a species have been adequately identified, remediated, or eliminated to allow for successful reintroduction.

Policy: The reintroduction of special status plants on sites where populations have been lost or on new sites shall not be allowed unless the action is:
a) required to prevent listing under the ESA, and
b) coordinated with and approved by the County Commission.

Policy: Where authorized disturbances are allowed in special status plant-occupied habitat, lands shall be rehabilitated or restored.

Policy: Fuels treatment projects in special status plant-occupied habitats shall be established at strategic locations to minimize size of wildfires and limit undesirable disturbance.

Policy: The use of motorized vehicles to construct fire lines in occupied habitat for special status plants, shall be optimized to:
a) protect human life and property,
b) improve and protect habitat, and
c) improve rangeland and/or forest health.

Policy: Native and non-native seeding for land health, rehabilitation and emergency stabilization shall be allowed in habitat for special status plants with appropriate best management practices.

Policy: Surface disturbing activities shall be allowed in habitat for special status plants with implementation of appropriate best management practices to reduce or eliminate impacts to occupied special status plant habitat.

Policy: Multiple-use activities shall be allowed in special status plant-occupied habitat if they would not result in long-term habitat loss or unacceptable fragmentation.

Policy: Maintenance of existing structural and non-structural range improvements in special status plant-occupied habitat shall be allowed.

Policy: Placement of new structural and non-structural range improvements in special status plant-occupied habitats shall be allowed if:
a) the activity is consistent and compatible with protection, maintenance of intact habitat, or enhancement of the habitat and populations, or
b) the project is designed to eliminate or reduce detrimental impacts.

Policy: Wildlife and livestock grazing shall be managed to minimize adverse impacts to special status plants and their habitat. Managers shall implement vegetative treatments and range improvements to protect special status plants. Managers may also use adaptive management strategies and structural range improvements. Wildlife and livestock grazing restrictions shall be a last resort and shall be implemented in the shortest time frame and overt the smallest area possible with County Commission concurrence.

Policy: Integrated weed management methods, including the use of herbicides and pesticides, for control of invasive species and noxious weeds is allowed. Methods shall be compatible with maintaining special status plant species and their habitats.

Policy: Fuel-wood cutting in special status plant-occupied habitat is allowed if it will not result in long-term habitat loss or unacceptable fragmentation.

Policy: Collection of non-special status plant seed in occupied habitat is allowed where it will not result in long-term habitat loss or unacceptable fragmentation.

References:

Utah Wildlife Action Plan Joint Team. 2015. Utah Wildlife Action Plan: A plan for managing native wildlife species and their habitats to help prevent listing under the Endangered Species

Act. Publication number 15-14. Utah Division of Wildlife Resources, Salt Lake City, Utah, USA.

Plant Information Compiled By the Utah Natural Heritage Program: A Progress Report, Publication Number 05-40, Utah Division of Wildlife Resources

Maps

Map 2.7 Critical/Crucial/Priority Habitat maps for special status species

2.8 Fish &Wildlife

Current Setting

This section includes general species accounts and fish and wildlife conditions in Millard County, derived from information obtained from the Utah Division of Wildlife Resources (UDWR) and/or reported in federal documents. In the context of this section, the term "wildlife" includes fish, amphibians, birds, mammals, and reptiles unless otherwise noted. Special status wildlife species including threatened and endangered species listed under the Endangered Species Act and other sensitive species are described in the Special Status Species Section the Resource Management Plan.

Federal agencies are required to cooperate, coordinate and be consistent with state and local plans, programs and policies. Forest Service, BLM and other agencies often rely on the UDWR to maintain and reestablish populations of native, non-native and game species on public lands while the individual federal agency participates through habitat management and restoration. The UDWR is responsible for managing wildlife population levels, while the federal agencies are responsible for managing wildlife habitat in a condition that will support them. Local entities provide the basic direction by delineating desired conditions, policies, goals, objectives and criteria through County resource management planning processes mandated by the state legislature and recognized by federal law. NEPA, CEQ Regulations, FLPMA, NFMA, the Clean Air Act, the Clean Water Act, agency directives, and other federal and state law establish local governments as the entity closest to the resource and best qualified to ensure the health, safety and welfare of the public while promoting harmony between man and his environment.

Millard County contains a variety of aquatic and terrestrial habitats that have the biological and physical attributes that are important in the life cycles of many fish and wildlife species. General habitat descriptions depict aquatic conditions, vegetative resource conditions, habitat quality, densities, use or species conflicts, and artificial and natural threats to occupying species. All fish and wildlife habitat is important to species occupying the area; but not all habitat is crucial, and not all habitat has the same relative value. Crucial habitats are defined by UDWR as those high value areas that wildlife depend on in order to avoid unacceptable life cycle stressors or population declines. If "crucial" areas are lost, occupying species experience and are vulnerable to drastic, irreversible declines. In addition, crucial habitats are often difficult to replace. Generally, habitat quality is reflected by species population levels and vigor.

The phrase "crucial habitat" has no regulatory or legal meaning. State and federal laws define "critical habitat" under the federal Endangered Species Act. However, the term "crucial habitat" refers strictly to a non-regulatory identification of lands and waters occupied by a species. The Western Governor's Wildlife Council defines "crucial habitat" as: *places containing the resources (including food, water, cover, shelter and important wildlife corridors) that are*

necessary for the survival and reproduction of aquatic and terrestrial wildlife and to prevent unacceptable declines, or facilitate future recovery of, wildlife populations; or are important ecological systems with high biological diversity value. "Crucial habitat," when used to describe fish and wildlife conditions in Millard County is equivalent to the word "range." Descriptions or rankings of relative habitat value in Millard County are identified in the chart below.

There can be crucial time periods in an animal's life cycle during which specific biologic requirements are essential to an individual's survival. During those times, the species' use area and/or biologic requirements may be described as being of crucial value. However, large scale or rapid population declines are largely prevented by implementation of laws requiring consistency, cooperation and coordination and through appropriate application of multiple-use/sustained yield and adaptive management principles.

Millard County	**Utah DWR**	**Description**
Critical	Critical	A term defined and used in the Endangered Species Act as a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection
Range	Crucial	Habitat providing for biological and/or behavioral requisites necessary to sustain the existence of wildlife populations
High Value	High Priority	Habitat that provides for intensive use
General	Substantial	Habitat that provides for frequent use
Low Value	Limited	Habitat that provides for occasional use
Priority Management	Not Defined	Those areas designated by Millard County where management actions give preferential treatment to one or more targeted species

Fish and wildlife depend on a variety of different waters and lands for food, shelter, and reproduction. Ineffective or passive land management can impact natural habitats, which can have serious consequences for fish and wildlife populations. Habitat loss and fragmentation due to human development is often cited as the cause of habitat loss, but in Millard County, failure to actively and aggressively manage forests and rangelands is the leading cause of species decline.

Wildlife habitat needs vary significantly by species. Wildlife habitat can occur as continuous or disjunctive features and extend from low elevations to high elevations. Climate, precipitation, soils, and biota respond to varying elevations, slope, and aspect. Big game populations are

managed based on habitat condition and the quality of the animals being produced. Population levels are linked to a variety of factors, including vegetation quality and quantity; adequate space, shelter, and cover; water distribution; and regional weather patterns and trends such as prolonged drought. As water availability and distribution affects wildlife populations, water developments, whether constructed primarily for livestock or wildlife, can improve water availability in wildlife habitat.

Wildlife management in Utah is divided by UDWR into 30 wildlife management units spread throughout the state. Millard County contains portions of the West Desert – Deep Creek (#19a), West Desert - Vernon (#19b), Southwest Desert (#20), Fillmore - Oak Creek (#21a), Fillmore - Pahvant (#21b), and Beaver (#22) wildlife management units.

Through cooperative transplants, introduction of elk, pronghorn, bighorn sheep, chukar, turkey, and fish species have historically occurred on lands within or adjacent to Millard County. The UDWR formally coordinates these activities with the BLM, Forest Service and other public and private entities on a case-by-case basis. However, state and federal agencies often exclude local government in the decision making process.

Need for Management Change

1) Resource management plans mandated by the state of Utah recognize local governments as the entity best suited to establish management priorities for fish and wildlife resources. State and federal agencies need to implement consistency, cooperating and coordination requirements of state and federal law to optimize management of fish and wildlife resources.

2) Definitions used by wildlife agencies for terms such as habitat, crucial, native, high value, important, etc. are imprecise/inaccurate and skew analysis in a biased manner. Fish, wildlife and habitat descriptions need to accurately reflect actual conditions in order to properly manage related resources.

3) The dynamic nature of fish, wildlife and habitat conditions needs to be recognized, and land managers need to manage resources on:
a) active management;
b) multiple-use / sustained yield; and
c) adaptive management principles while optimizing harmony between man and his environment.

4) Fish and wildlife adapt to changing conditions, and man's impact on public lands is relatively limited. So land managers need to recognize site specific disturbances may impact some individuals, but cumulative impact over an entire population or range is limited.

5) Protection and enhancement of fish and wildlife resources is optimized by active management of habitat that produces healthy, resilient, resistant, vigorous, and diverse vegetation consistent with land heath, ecological site descriptions and desired conditions.

6) Land managers and UDWR need to cooperate and coordinate with Millard County to designate priority management habitats for targeted species in Millard County. UDWR is a single purpose agency and lacks Millard County's authority to manage lands under a broad range of federal and state laws.

Desired Future Conditions

Millard County desires:

a) State and federal land managers recognize Millard County's role in land management and planning and comply with consistency, cooperation and coordination requirements to the maximum extent allowed by law.

b) Definitions used by wildlife agencies for terms such as habitat, crucial, native, high value, important, etc. be refined to accurately and precisely reflect fish, wildlife and habitat conditions.

c) Land managers take a more aggressive and active approach to habitat treatments and manipulation. In broad terms Millard County desires seral stages to be 30% to 50% for early stage, 30% to 40% for mid stage, and no more than 25% late stage.

d) Habitats employ a mix of desirable natives and biological equivalent non-natives to optimize land health and productivity.

e) Land managers actively manage for optimum desired conditions as established in the County's and State's resource management plans using appropriate native and non-native species. Passive management in hopes of achieving some historic condition based on an arbitrary definition of "native" violates consistency, cooperation and coordination requirements of federal law, unless otherwise approved by the County Commission.

f) Land managers and UDWR cooperate and coordinate with Millard County to designate priority management habitats for targeted species in Millard County.

Findings, Policies, Goals & Objectives, Criteria

Policy: Millard County is the entity closest to fish and wildlife resources and is best suited to establish management priorities for fish and wildlife resources in consultation, cooperation and coordination with other state and federal agencies.

Policy: State and federal agencies shall implement consistency, cooperation and coordination requirements of state and federal law to optimize management of fish and wildlife resources in Millard County.

Finding: The policies adopted in the Millard County Resource Management Plan optimize common interests across agency boundaries and provide the best opportunity to:

a) Recognize that wildlife and its habitat are an essential part of a healthy, productive environment;
b) Recognize the impact of wildlife on man, his economic activities, private property rights, state and federal lands, and local economies;
c) Balance the habitat requirements of wildlife with the social and economic activities of man;
d) Recognize the social and economic values of wildlife, including fishing, hunting, viewing, conservation, and other uses; and
e) Maintain wildlife on a sustainable basis.

Policy: Millard County is the only governmental entity capable of providing consistency, across agency boundaries, between federal, state and local plans regarding management of fish, wildlife and habitat. Millard County's Resource Management Plan will serve as the primary document for fish, wildlife and habitat management. Other federal, state and local entities, agencies, boards and/or councils shall coordinate their fish, wildlife and habitat management plans with Millard County to the maximum extent allowed by law.

Finding: Habitat and crucial habitat mapping by state and federal agencies has no legal or regulatory meaning and generally depicts only the estimated range for the identified species. Mapping often includes developed areas that do not have biologic conditions necessary to support the species. Until state and federal maps are refined to accurately depict species habitat, the maps included in this RMP constitute the highest and best data available for site specific and landscape level planning.

Goal: Prior to December 31, 2025, land managers will seek to have habitats supporting important fish and wildlife species meet the following seral stage ranges:

Early Stage	30% to 50%

Mid Stage	30% to 40%
Late Stage	Less than 25%

Finding: Fish, wildlife and associated habitat conditions are dynamic and are best managed under the principles of:
a) active management,
b) multiple-use / sustained yield, and
c) adaptive management.
Management of fish and wildlife resources and habitats to meet perceived native conditions for some arbitrarily selected time is inconsistent with Millard County's Resource Management Plan.

Finding: All habitats in Millard County have been and are impacted to some degree by man. There are no habitats in Millard County that are in a completely natural state.

Finding: Land managers have allowed conifer encroachment, invasive species and passive management to degrade fish and wildlife habitat. Active management needs to be implemented to restore degraded habitats.

Objective: Optimize fish and wildlife habitats through an appropriate mix of desirable native and non-native plant communities.

Policy: Based on a 10 year rolling average and consistent with desired ecological site descriptions, restore at least 2.5% of the Class II and Class III pinyon/juniper woodlands having a median age of less than 200 years to sagebrush / semi-desert grassland vegetation communities.

Finding: Fish and wildlife adapt to changing conditions, and man's significant impact on public lands is limited to site specific areas which can be mitigated.

Policy: Harmony between man and his environment is promoted by NEPA and is achieved when responsible human development and fish, wildlife and habitat resources are optimized to the mutual benefit of all. Technology exists and resources are available to balance human development and resource enhancement. Failure to do so is inconsistent with Millard County's RMP and an abrogation of management responsibilities.

Policy: Landscape level planning is only as accurate as the site specific information upon which it is based. Where site specific conditions are inconsistent with landscape level / rapid ecoregion analysis, local site specific conditions shall be recognized, used in analysis and appropriately displayed.

Policy: Consistent with ecologic site conditions, land managers shall use an appropriate mix of native and non-native ecologic equivalents to maintain, restore and enhance fish and wildlife habitats. Native only mixes may be used:
a) when it can be demonstrated the native only mix provides equal or better habitat conditions or
b) when native / non-native mixes are practically or economically infeasible.

Policy, Goal & Objective: Actively and aggressively manage fish, wildlife and habitat resources to optimize protection and enhancement of the resources and to produce healthy, resilient, resistant, vigorous, and diverse vegetation consistent with land heath, ecological site descriptions and desired conditions.

Policy & Definition: *Priority Management Habitats* are those areas designated by Millard County where management actions give preferential treatment to one or more targeted species. Priority management habitats may include stand-alone migration/travel corridors deemed vital to the management of a targeted species. No lands in Millard County shall be managed as priority management habitat and no lands shall be managed under any other name as if they were priority management habitat without the concurrence of the Millard County Commission.

Policy: Millard County extends its full cooperation to coordinate designation of appropriate priority management habitats in Millard County. The County Commission extends an open invitation to UDWR, federal land managers and other agencies with wildlife jurisdiction to assist the County in establishment of priority management habitats. Priority management habitats designated by Millard County shall be mapped and included in the County's Resource Management Plan.

2.8.1 Fish

Current Setting

Several habitat attributes are necessary for healthy fish populations and sustainability, including healthy riparian conditions, channel stability, habitat diversity, appropriate sediment load, high-flow frequency, low-flow frequency, oxygen, temperature, and pollutants. Through appropriate management actions land owners can influence many if not all of these stream characteristics except high and low flows, which are highly variable and depend on weather, snow accumulation, rainfall intensity, and water rights.

As many as 20 different species of bass, chub, trout and other fish potentially occur in Millard County. The survival, growth, and diversity of species in a stream depend on the amounts and types of life cycle products available in that stream system. Fish and other aquatic lifeforms require good water quality for survival. Certain water quality standards are needed to meet basic

biological needs for fish, including turbidity, pH (measure of acidity or alkalinity), dissolved oxygen, stream temperature, and pollutants. Land managers often work with the State of Utah to manage fisheries on public lands. However, local/county entities are generally ignored when coordinating actions to improve aquatic habitats or to reduce / eliminate negative factors on streams and reservoirs.

Fish habitat is generally limited to lakes, ponds, reservoirs, perennial or intermittent streams containing sufficient water to provide reliable food and cover. In general, stream health, water quality, and in-stream fish habitat have been degraded over the years. Rearing and spawning areas have been reduced in size, quality and quantity as rivers have been straightened, large wood removed, pool habitat reduced and/or eliminated, side channels and wetlands removed, beavers removed, and stream bottoms compacted by fine sediment. Many streams do not maintain temperatures suitable for fish for at least a few days a year. The loss of water volume during summer low flows, which is at least partially due to water withdrawal from encroaching conifers, has directly affected stream temperature. Increasing air temperatures in summer months can also directly affect stream temperatures, especially in areas that lack riparian vegetation and stream shade. In many areas, almost the entire fish-bearing stream is reduced to no flow or almost no flow during summer months.

Overall condition of the fisheries in Millard County is not only linked to the condition of the riparian area and stream channel but also to upland sites that contribute to sediment loading, impact infiltration of precipitation, and reduce available water due to encroaching woody vegetation. Stream, channel and riparian conditions are dynamic and vary throughout the different watersheds in the County. Stream habitat conditions on private lands in Millard County may be impacted by livestock grazing and human activities. However on public lands, human related surface disturbing activities are statistically limited, and fisheries are largely impacted by natural events, alone or in combination with degraded riparian and upland habitat conditions often resulting from loss of historic vegetative communities to encroaching conifer woodlands. In areas where invasive pinyon/juniper woodlands have dominated vegetation, streams are increasingly susceptible to storm events that can impact water quality and reduce soils and vegetation in the floodplain. In conifer woodlands, many of the tributary creeks and washes that feed into the larger water courses are on steep ground with highly erodible soils and can have high sediment yields, especially during storm events.

The County's aquatic habitats have gradually declined over the last century due to a combination of influences. Dam construction, irrigation projects, livestock grazing, and farming/ranching practices have sought to minimize fluctuations in stream flows and maximize scarce water resources. During the last decade, federal land managers have been making a strong effort to inventory and identify activities responsible for streams remaining relatively healthy, and for streams declining in health or remaining in poor condition. Based on such inventories, changes have been made in livestock grazing or other activities, which have led or will lead to

improvements in stream conditions. However, failure to adequately:

a) implement vegetative restoration projects,

b) arrest loss of historic vegetative communities to encroaching conifers, and

c) maintain forests and rangelands that are resistant and resilient to fire

have led to a loss of wetland and riparian habitats, reduced water quantity and quality, increased water temperatures, increased sediment loading, and increased loss of in-stream habitat, all of which have led to declining native fish populations. These declining conditions, which often originate on federally managed lands, impact downstream habitat, particularly where soil resources are lost to erosive storm events in degraded upland habitats. The survival, growth, and persistence of fish species, the aquatic and terrestrial species of plants that provide habitat, and the insects that provide food for fish depend on upstream conditions and influences that affect stream ecosystem health.

Aquatic invasive species also pose a major risk to fisheries in the planning area. Before discovery of quagga mussels in nearby waters, aquatic invasive species in Millard County's was a minor issue. However, attention associated with quagga muscles alerted land managers and the public of potential degradation from the spread of aquatic invasive species, and has let them to formulate management ideas and actions to avoid introduction of aquatic invasive species to waters of the state. Of specific concern in Millard Count is the invasive species *Myxobolus cerebralis*, a parasite that causes whirling disease in trout, salmon, whitefish, and grayling. This parasite is found in relatively few waters in Utah, but two affected waters occur in neighboring Beaver County – the Beaver River and Minersville Reservoir.

Need for Management Change

1) Fish and other aquatic biota require good water quality for survival. Certain water quality standards are needed to meet basic biological needs for fish, including turbidity, pH, dissolved oxygen, stream temperature, and pollutants. Aquatic resources are being degraded due to failure to protect and enhance sagebrush / semi-desert grasslands.

2) Land managers place undue emphasis on human development while passively managing resources in their control such as habitat vegetation, encroaching conifers, and removal of undesirable vegetation in riparian areas. Land managers need to actively manage fish and fish habitat to enhance riparian conditions, channel stability and habitat diversity.

3) The loss of sagebrush / semi-desert grasslands to conifer encroachment is increasing sediment loading and turbidity in streams and watercourses.

4) *Myxobolus cerebralis*, the parasite that causes whirling disease needs to be prevented, controlled, and eradicated if found, from Millard County waters.

Desired Future Conditions

Millard County desires:

a) State and federal agencies consult, cooperate and coordinate with Millard County to reduce or eliminate primary impacts that adversely affect streams, waterbodies, and the fisheries they support.

b) Land managers concentrate efforts to improve streams, waterbodies and fisheries on optimizing desirable vegetative cover.

c) No new fish or species be introduced, reintroduced, transplanted or translocated in Millard County watercourses without coordination with Millard County and approval of the County Commission. This includes the translocation and reintroduction of beaver.

d) Existing aquatic invasive species, including *Myxobolus cerebralis* and quagga mussels (if found), be eradicated from Millard County's watercourses, and new infestations be prevented from entering the County's waters.

e) Potential impacts to fisheries resulting from reasonably foreseeable actions such as mining, livestock grazing, wind energy development, geothermal exploration and facility development, pipeline and transmission line construction, urban development, and roadway and bridge construction be mitigate through the implementation of best management practices.

f) Land managers initiate actions to build additional resistance and resilience in Millard County's streams and riparian areas to prepare for the effects of potential climate cycles.

g) Prescribed fire is used as a last resort due to its potential to impact soil erosion, aquatic conditions and riparian values. Whenever prescribed burning is used and in the event of wildland fire, land managers must re-seed the affected area with an appropriate mix of native an non-natives capable of supporting multiple-use / sustained yield activities while optimizing land health and productivity

Findings, Policies, Goals & Objectives, Criteria

Finding: Land managers can control many stream ecosystem attributes that contribute to healthy fish populations and sustainability including but not limited to healthy riparian conditions, channel stability, habitat diversity, sediment load, bank stability, and pollutants. Active and

adaptive management techniques exist to achieve desirable stream characteristics without jeopardizing historic multiple-use activities.

Finding: The survival, growth, and persistence of fish species, the aquatic and terrestrial species of plants that provide habitat, and the insects that provide food for fish depend on upstream conditions and upland influences that affect stream ecosystem health.

Finding: Replacing invasive conifers with desirable native and non-native upland vegetative communities will:
a) reduce soil erosion,
b) reduce resultant stream sedimentation,
c) increase water availability for soil retention and stream recharge, and
d) is a key element in sustaining healthy fish populations and aquatic habitat.

Policy: Land managers shall consult, cooperate and coordinate with Millard County to manage public lands to reduce or eliminate factors that adversely affect streams, waterbodies, and the fisheries they support in the County.

Policy: In order to promote harmony between man and his environment, land managers should concentrate/prioritize efforts to improve streams, waterbodies and fisheries on optimizing desirable vegetative cover and improving terrestrial conditions rather than restricting historic and developing human activities.

Policy: No new fish or wildlife species may be introduced, reintroduced, transplanted or translocated in Millard County watercourses without coordination with Millard County and approval of the County Commission. This includes the translocation and reintroduction of beaver.

Objective: A local water quality ordinance should be developed under authority of the Clean Water Act to protect Millard County's streams, reservoirs and watercourses.

Goal: Existing aquatic invasive species, including *Myxobolus cerebralis* and quagga mussels (if found) will be eradicated from Millard County's watercourses prior to January 2026, and new infestations shall be prevented from entering the County's waters.

Objective: Mitigate potential impacts to fisheries resulting from reasonably foreseeable actions such as mining, livestock grazing, wind energy development, geothermal exploration and facility development, pipeline and transmission line construction, urban development, and roadway and bridge construction through the implementation of best management practices while allowing multiple-use / sustained yield activities to proceed.

Policy, Goal & Objective: Land managers initiate actions to build additional resistance and resilience in Millard County's streams and riparian areas to prepare for the effects of potential climate cycles.

Policy: Prescribed fire is used as a last resort due to its potential to impact soil erosion, aquatic conditions and riparian values. Other methods to restore land health should be considered before prescribed fire.

Policy: Whenever prescribed burning is used and in the event of wildfire, land managers must re-seed the affected area with an appropriate mix of native an non-natives capable of supporting multiple-use / sustained yield activities while optimizing land health and productivity.

Policy: Design route crossings of perennial and ephemeral streams to accommodate aquatic species passage, habitat, and natural stream processes (e.g., sediment and debris transport). For roads, paths, ways, trails, and other routes that have been determined by a court of competent jurisdiction to be under the control of the land manager and have been claimed by land managers under 23 CFR 460 as of January 1, 2016 land managers shall determine:
a) the priority between species passage, habitat, and natural stream processes; and
b) design standards.
For roads, paths, ways, trails, and other routes that have not been determined by a court of competent jurisdiction to be under the control of the land manager and have not been claimed by land managers under 23 CFR 460 as of January 1, 2016 Millard County shall determine:
a) the priority between species passage, habitat, and natural stream processes; and
b) design standards.

Policy & Criteria: Deterioration of riparian/fisheries habitat will be avoided, minimized and/mitigated by implementing actions and best management practices that are the least restrictive and most harmonious with existing multiple-use / sustained yield activities in the vicinity. Where existing multiple-use / sustained yield activities must be restricted or temporarily eliminated to restore riparian/existing fisheries habitat in perennial streams, it will be done in the shortest period possible and not more than three (3) growing seasons or twenty-seven (27) months, whichever is less. Without Millard County Commission concurrence, existing multiple-use / sustained yield activities shall not be restricted or temporarily eliminated in order to restore aquatic species that were:
a) not present in a perennial stream on January 1, 2016 or
b) in an ephemeral stream.

Policy: On public land, new impoundments with potential fisheries and existing reservoirs where fisheries currently exist will be managed to maintain minimum pool depth needed to sustain viable fisheries.

Policy: Public access to fisheries on public land will be ensured through ROWs or other legal instruments on a willing buyer/willing seller basis. Millard County has a "No Net Loss of Private Land" policy. Transfer of land out of private ownership shall not occur without concurrence of the Millard County Commission.

Policy: Wild and Scenic River segments shall not be designated for fisheries in Millard County without the concurrence of the Millard County Commission. All Wild and Scenic River designations shall comply with criteria established in this RMP, unless otherwise approved by the County Commission.

2.8.2 Wildlife

Current Setting

Wildlife species, including big game, upland game, migratory birds, reptiles, small mammals, predators, bats, raptors, and many others, depend on the condition of their habitat for survival. Important indicators of wildlife habitat health, such as plant composition, distribution, and structure, are directly tied to wildlife populations. All wildlife species have their own specific set of forage, water, shelter, and special life cycle requirements. Rangeland, desert, riparian, and forest plant communities, along with climate, topography, soils, and natural or artificial threats contribute to wildlife habitats.

The Utah Division of Wildlife Resources (UDWR) is responsible for managing wildlife populations - with the notable exception of federally listed species under the Endangered Species Act, which are the responsibility of the United States Fish and Wildlife Service (USFWS). The USFWS also regulates hunted migratory species such as waterfowl and non-game migratory birds. The USFWS may delegate certain responsibilities to the UDWR and may encourage collaboration with academics and other recognized technical experts to aid in recovery efforts. However, federally mandated consistency, cooperation and coordination with local governmental entities is often ignored.

Wildlife typically utilizes habitats in predictable ways based on life history requirements of the individual species. For example, pronghorn occupy habitats that provide low visual structure, such as low sagebrush communities while avoiding dense shrub canopy cover. Sage grouse, on the other hand, depend on dense shrub canopy cover for hiding, nesting, thermal shelter, and

secure travel. These predictable behaviors are known as "wildlife / habitat relationships" and are frequently used to analyze impacts from various land management activities. In general, wildlife response to habitat condition is predictable and reasonably well understood for many species. Knowledge of wildlife and wildlife habitat relationships based on relevant habitat indicators allow land managers to make informed predictions about the impacts of fires, grazing, development, recreational use, or forest management operations.

In addition to habitat relationships, federal land managers often consider publications, studies and other information pertaining to wildlife management. Because human disturbances and introduced structures can also impact wildlife, land managers also consider more than just physical and ecological attributes of native habitats. Habitat loss and fragmentation, noise and other potential stressors caused by structural developments (such as fences, signs, powerlines, meteorological towers, communication towers, mines, solar energy developments, wind energy generators, pipeline water tanks, and livestock troughs) associated with multiple-use land management are evaluated.

Structural development and habitat security considerations are not necessarily associated with measurable plant community indicators. Hypothetically, the potential adverse impacts of structures, roads, energy developments, and other human activities, singularly or in combination (i.e., cumulative impacts) could result in harmful impacts to wildlife. It is also possible that other energy-related developments such as powerlines or meteorological towers could adversely affect wildlife because of collision hazards, behavioral avoidance reactions to overhead structures, and/or possible increased raptor predation caused by elevated hunting perches.

During the past few decades, land managers have moved away from significant habitat related factors which they control that affect fish and wildlife and have magnified their focus unfairly on human related impacts. For example, in the recent sage grouse plan amendments federal agencies focused on man-made, elevated perches, fence markings and human disturbances while ignoring the more significant issues of lost habitat resulting from large scale, invasive conifer encroachment, misrepresented habitat, and massive predation from ravens and coyotes. In another example, Utah prairie dog inventories in Iron County document a significant population increase in areas most heavily impacted by humans and a drastic population decline in native lands under the protection of the federal government.

While quality wildlife habitat will likely sustain wildlife populations over several generations, some factors completely unrelated to physical habitat qualities, such as disease, accidents, drought, wildfire, severe weather events, natural population cycles, and other mechanisms could drastically suppress or limit wildlife populations. Population limitations could occur temporarily or for very long periods, even where there are healthy habitats present on public lands.

Upland game birds in the County include mourning dove, ring-necked pheasant, Rio Grande and Merriam's wild turkey, and chukar partridge. The habitat for these species varies and depends on season of use and availability of food and shelter. Annual fluctuations for most upland game bird populations closely correlate with annual climatic patterns. Mild winters and early spring precipitation from March through May can improve conditions for upland game species, and have been shown to increase populations. Warm, dry weather, especially during June, is generally considered a vital requirement for the survival of newly born young of many upland game species. Cool, wet springs, dry summers, and harsh winters can depress upland game bird numbers.

Raptors, including hawks, eagles, owls, and falcons, are protected wildlife and are widely regarded as indicator species of environmental quality due in part to their position at the top of the food chain. The planning area contains suitable habitat for many relatively common raptors. Breeding populations, summer residents, winter residents, and year-round resident species are found in suitable rangeland, canyon, riparian, and forest habitats throughout most of the region.

Migratory birds are species that in the course of their annual migration traverse certain parts of the United States, Canada, Mexico, Russia, or Japan. This includes not only neotropical (long-distance/bi-equatorial) migrants, but also temperate (short-distance) migrants and migrants to Japan and Russia. For many species, breeding habitat, wintering habitat, and the travel corridors interconnecting them are purported to be rapidly disappearing due to development, fragmentation, lack of adequate protective measures, and other factors. However, considering Millard County's rural nature, open landscapes and the more heavily impacted human developments that must be traversed in other areas of the migratory routes, diminishing habitat is not a significant factor.

Land managers often work closely with the UDWR to achieve and maintain suitable habitat, desired population levels, and distribution of big game species on federally administered lands. Portions of the West Desert – Deep Creek, West Desert – Vernon, Southwest Desert, Fillmore - Oak Creek, and Fillmore – Pahvant UDWR Wildlife Management Units are located in the County. A map of UDWR Wildlife Management Units is available at http://wildlife.utah.gov/hunting/biggame/wmas.php.

Mule deer are the most abundant big game animal in Utah and occur in a variety of habitats throughout the area, and their range covers higher elevations in Millard County. The northern Confusion Mountains and the forested area east of Interstate 15 have the largest concentration of deer habitat in the County. Mule deer feed on forbs, grasses, and shrubs throughout spring and summer, and primarily shrubs during fall and winter. Mule deer fawn during spring on their migration back to their summer range.

Pronghorn are widely distributed throughout most of the desert valleys in Millard County. Local populations are most abundant in the Southwest Desert and West Desert – Deep Creeks management units and the extreme southern end of the Fillmore – Oak Creek unit. Pronghorn prefer very open vegetation communities such as salt-desert shrub, sagebrush steppe, and other treeless areas. Typically, pronghorn prefer flat terrain with slopes flatter than 5:1. Pronghorn fawning occurs throughout the range of this species, and their diet consists of a variety of forbs, shrubs, and grasses. Forbs are of particular importance during spring and summer, whereas shrubs are more important during winter.

Rocky Mountain Elk are less widespread in Millard County than in many other areas of the state, with populations restricted to the highest mountains east of Interstate 15 in the Fillmore – Pahvant management unit and the mountains on the southwest border of the County. Recent radio collaring efforts in other areas of the state have demonstrated the migratory nature of certain elk populations. Elk are quite capable of wandering and can colonize new areas.

Bighorn sheep were estimated to be more numerous than elk or mule deer prior to European settlement. At present, there are bighorn sheep occurring in Millard County in the Oak Creek – Eight Mile area of the Canyon Range. Reintroduction of bighorn sheep in the planning area has been identified as a goal in the Utah Bighorn Sheep Statewide Management Plan. If the UDWR desires to consider future transplants of bighorn sheep in Millard County, it is anticipated coordination efforts will be initiated. Rocky mountain goats have also been introduced to Utah and are found only in the alpine highlands of the Tushar Mountains south and east of the eastern edge of Millard County.

Black bears are native and common in Utah. There is bear habitat only in the mountains on the extreme eastern edge of Millard County. According to the Utah Black Bear Management Plan, 80 % of bear observations occur between 7,000 feet and 10,000 feet elevation; and the remaining 20% occur within 2400 feet of those elevations. Black bears are omnivorous and eat a wide variety of foods during late spring, summer, and fall before they go into hibernation for 5 to 7 months. The spatial arrangement, abundance, and dependability of seasonally important food sources might explain much of the variation in black bear densities, home range size, and seasonal habitat use in the planning area.

Cougar, or mountain lions, are found statewide in Utah, occupying habitat types ranging from rugged desert areas to above timberline. Although the species is fairly common throughout Utah and in eastern Millard County, individuals are rarely seen because of their secretive nature. Seasonally, their movements follow their main prey, mule deer. Cougar will also feed on rabbits, elk, wild horses, or other animals, but approximately 80 percent of their diet consists of deer. Cougars are active year-round, during day and night, although most activity occurs at dawn and dusk. They are hunted on a limited basis and are closely monitored in Utah. Cougar range in

Millard County is relatively limited and is nearly identical to mule deer range countywide and black bear range in the eastern mountains.

Several furbearer species are also located in the County and are managed according to Utah Furbearer Regulations. UDWR-defined furbearers include gray fox, kit fox, red fox, bobcat, raccoon, badger, ringtail, spotted skunk, striped skunk, American marten, weasels, mink and beaver.

Special status species also occupy portions of Millard County. Special status species include species listed under the Endangered Species Act as *Endangered, Threatened* or *Candidate,* species designated as sensitive by agency managers and sensitive species designated by state and local entities. Special status species are discussed in Section 2.7 Special Status Species.

Other wildlife species not specifically discussed above also exist in Millard County. There is a general lack of definitive information about small animals such as rodents, bats, amphibians, reptiles, and invertebrates in the planning area. Databases maintained by various state and private programs document general occurrences for many less-studied species of wildlife, but site-specific inventories have not been completed.

Need for Management Change

1) Mapping and descriptions for the various habitat types needs to be improved. Landscape level and rapid ecoregion assessments are too inaccurate to evaluate site specific, watershed, field office or statewide conditions.

2) Encroaching conifers have significantly reduced available forage for wildlife. Based on a rolling 10 year average, land managers need to achieve a 2.5% reduction in Class II and III pinyon / juniper woodlands.

3) Big game management is often over objective. Big game needs to be managed within 10% of objective.

4) Land managers are prevented from taking beneficial action due to inconsistent, onerous, self-imposed policies. Inconsistent, conflicting and self-defeating management actions need to be replaced with active, adaptive management that optimizes land health and harmony between man and his environment.

5) Land managers need to abandon passive management aimed at allowing nature to achieve some arbitrarily determined “native” condition and need to implement active, adaptive

management actions aimed at reaching desired conditions consistent with Millard County's Resource Management Plan.

6) UDWR is a single purpose agency and their statewide wildlife management plans can adequately serve as a general framework and designation of a species' range. However they lack specificity necessary to provide site specific direction and designation of priority management habitats and populations. UDWR and Millard County need to develop site specific plans for species and wildlife management units in the County through cooperation and coordination.

7) Based on current conditions, surface disturbing activities in big game habitat need to be considered for statistical significance and severity of impacts as well as whether the activity occurs in a species' range. When impacts are statistically minimal or of low severity, surface disturbing impacts should be allowed to proceed with the minimum reasonable best management practices. Where surface disturbing activities are determined to be statistically significant or severe in priority big game habitat, land managers should employ avoid – minimize – mitigate protocols.

8) Given Millard County's rural nature, open landscapes and more heavily impacted human developments that must be traversed in other areas of migratory routes, and when considering breeding habitat, wintering habitat, and the travel corridors interconnecting them for migratory birds, land managers should focus on developing and enhancing healthy, vigorous and abundant habitats rather than restricting human development.

Desired Future Conditions

Millard County desires:

a) For each wildlife management unit not currently meeting objective, big game species be no more than 10% over objective by June 30, 2025. For each wildlife management unit currently meeting objective, big game species remain between 90% and 102% of objective based on accurate annual herd counts.

b) No wildlife species be translocated, transplanted, introduced or re-introduced in Millard County without consistency, cooperation and coordination with Millard County and without the expressed concurrence of the Millard County Commission.

c) Mapping and habitat descriptions developed as part of landscape level and rapid ecoregion assessments be field verified, corrected and refined prior to implementation in Millard County.

d) Consistent with ecologic site descriptions, encroaching Class II and III pinyon / juniper woodlands be reduced by 2.5% based on a rolling 10 year average.

e) Land managers eliminate inconsistent, conflicting and self-defeating management actions and implement active, adaptive management.

f) Land managers abandon passive management aimed at allowing nature to achieve some arbitrarily determined "native" condition while implementing active, adaptive management actions aimed at reaching desired conditions consistent with Millard County's Resource Management Plan.

g) UDWR and Millard County develop coordinated, site specific management plans for species and wildlife units in Millard County.

h) Land managers consider statistical significance and severity of impacts when surface disturbing activities are proposed in big game habitat. When impacts are statistically minimal or of low severity, surface disturbing impacts should be allowed to proceed with the minimum reasonable best management practices. Where surface disturbing activities are determined to be statistically significant or severe in priority big game habitat, land managers should employ avoid – minimize – mitigate protocols.

i) Land managers emphasize developing and enhancing healthy, vigorous and abundant migratory bird habitat rather than restricting human development when considering breeding habitat, wintering habitat, and the travel corridors interconnecting them for migratory birds.

Findings, Policies, Goals & Objectives, Criteria

Goal: Manage the biological integrity of terrestrial and aquatic ecosystems to sustain or improve habitat and fish and wildlife populations, with emphasis on ecosystem health, and species biodiversity.

Objective: Manage important wildlife habitats in cooperation and coordination with state and local entities, transferring public ownership to state and local entities that have management jurisdiction over wildlife when ranges, habitat and life cycle requirements extend beyond agency boundaries.

Policy: Land managers shall maximize use of the Recreation and Public Purpose Act (R&PPA) and other laws to transfer public ownership of important wildlife and fishery habitats to state and local entities when ranges, habitat and life cycle requirements extend beyond agency boundaries.

Finding: Given the connection between the local custom, culture and heritage with fishing, hunting and wildlife viewing, transfer of federal lands for wildlife management purposes under the R&PPA constitutes a transfer for recreation purposes with a maximum of 6,400 acres per eligible entity per year.

Finding: State and local entities that manage site specific fish and wildlife populations are better suited to manage habitats that cross agency boundaries than federal agencies who are limited by jurisdictional boundaries, national policy, and landscape level planning.

Finding & Policy: Millard County does not support acquisition of private lands into state or federal ownership for wildlife management purposes in most instances. There shall be no transfer of private lands into state or federal ownership for wildlife management purposes unless it is coordinated with and approved by the Millard County Commission.

Policy: Land managers must be aware of wildlife population trends and must take appropriate, active, and adaptive management actions to conserve or improve habitats, which will sustain species through a population decline.

Finding: Consistent with ecological site conditions, optimizing land health with an appropriate mix of desirable, native and non-native vegetation provides the greatest benefit for fish and wildlife health, vigor and prosperity.

Goal: Manage to optimize land, fish, wildlife and habitat health while avoiding, minimizing, or mitigating adverse impacts to fish and wildlife species and their habitat.

Objective: Manage to reduce or eliminate adverse impacts to or conflicts between resource uses and fish and wildlife populations and their habitats by optimizing land health, optimizing vegetative cover with desirable native and non-native species, water development, reducing undesirable and invasive vegetative communities, predator control, and other active and adaptive management actions.

Goal: Maintain habitat connectivity and wildlife movement between ecological zones and seasonal-use areas.

Objective: Maintain and enhance movement corridors and seasonal habitat-use patterns for important species by optimizing land health, optimizing vegetative cover with desirable native and non-native species, water development, reducing undesirable and invasive vegetative communities, predator control, and other active and adaptive management actions.

Objective: Maximize consistency, cooperation and coordinated management opportunities to maintain or reestablish habitat connectivity across agency boundaries and federal and non-federal lands.

Objective: Consistent with Millard County's Resource Management Plan, manage habitats to maintain or improve functional ecosystems on public lands while preserving and enhancing resource uses.

Goal: Manage for the continuity and productivity of fish and wildlife and their habitat to support local wildlife population objectives.

Policy & Implementation Action: Invoke federal, state and local consultation, consistency, cooperation, and coordination requirements to unify wildlife population objectives and other management plans.

Policy & Implementation Action: Invoke federal, state and local consultation, consistency, cooperation, and coordination requirements to manage the introduction, translocation, augmentation, reestablishment, restoration, and enhancement of fish and wildlife populations in appropriate habitats.

Policy & Implementation Action: Invoke federal, state and local consultation, consistency, cooperation, and coordination requirements to unify introduction, translocation, augmentation, reestablishment of fish and wildlife to restore or expand populations in appropriate habitats.

Policy: NEPA requirements to harmonize man's impact with his environment mandate active management of fish and wildlife habitat has priority over passive neglect of vegetative communities and encroaching woodlands.

Policy & Criteria: Big game objectives are set at those numbers established on January 1, 2016, unless otherwise approved by the Millard County Commission. Big game population objectives in Millard County will not be changed after January 1, 2016 without consistency, consultation, cooperation, coordination, and concurrence with the Millard County Commission.

Policy, Goal & Objective: Each wildlife management unit in Millard County not meeting big game population objectives will be not more than ten (10) percent over objective prior to June 30, 2025. For each wildlife management unit meeting objective, big game populations remain between 90% and 102% of objective based on accurate annual herd counts.

Policy: No wildlife species will be translocated, transplanted, introduced or re-introduced in Millard County without consistency, cooperation and coordination with Millard County and without the expressed concurrence of the Millard County Commission.

Goal: Improve, maintain, or restore native and non-native desired plant communities in important wildlife habitat

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Policy, Goal & Objective: Consistent with ecologic site descriptions, land managers will achieve 2.5% reduction in encroaching Class II and III pinyon / juniper woodlands, based on a rolling 10 year average.

Policy: Mule deer will be managed to minimize impacts to agricultural fields and croplands.

Policy: UDWR will work cooperatively with transportation officials to reduce the frequency and severity of vehicle / wildlife conflicts.

Objective: Manage pesticide, rodenticide, and herbicide application in a manner compatible with land, fish and wildlife health.

Objective: Manage to prevent or control predators and disease that threaten fish and wildlife populations or their habitat.

Objective: Manage to prevent the spread of terrestrial and aquatic invasive species.

Objective: Maintain or improve desired fish and wildlife populations and habitats to achieve goals established in Millard County's Resource Management Plan or as modified, updated and/or approved by the Millard County Commission.

Implementation Action: Promote, support and allow appropriate improvement, construction and maintenance of water developments that benefit wildlife. Evaluate the effectiveness of existing wildlife water developments and install, improve, repair, replace, or relocate water developments as needed.

Implementation Action: Protect and conserve raptor nesting and foraging habitat while prioritizing active forest and rangeland management to restore resilient and resistant vegetation communities, while allowing other resource uses, consistent with Millard County's Resource Management Plan.

Implementation Action: Develop and construct fish and wildlife habitat improvement projects (including vegetation treatments) to meet fish and wildlife goals and objectives, while optimizing land health and other resource uses.

Implementation Action: Coordinate predator and animal damage control with federal, state and other agencies, consistent with Millard County's Resource Management Plan.

Implementation Action: Manage migratory birds and their habitats to optimize species enhancement and resource uses, while maximizing harmony with man and his environment and consistency with Millard County's Resource Management Plan.

Implementation Action: Protect, conserve, and restore priority aquatic, riparian, and wetland habitats to provide for desirable self-sustaining fish or other aquatic species populations, while optimizing resource use and maximizing consistency with Millard County's plans, programs, policies, and RMP.

Implementation Action: Consistent with Millard County's Resource Management Plan, avoid, minimize and mitigate damaging resource uses in high priority big game habitat through cooperation and coordination with land managers and UDWR.

Finding: UDWR and agency habitat mapping inaccurately designates areas as crucial, priority, high value, important and other similar wording. In many cases mapping only depicts a species' range.

Policy: Unless otherwise mandated by superior law, Millard County's habitat designations, descriptions, and definitions shall be used. Where conflicts in law exist, Millard County invokes consistency, cooperation and coordination requirements to the maximum extent allowed by law. Habitat designations shall comply with Data Quality Act requirements, actual site specific conditions and biologic life cycle requirements, unless otherwise approved by the Millard County Commission.

Finding: Roads, paths, ways and trails are important cultural and historic resources, and their continued use is vital to fishing, hunting and wildlife viewing, and the County's custom, culture and heritage. The amount of land used for roads, paths, ways and trails is statistically insignificant when compared with available habitat for almost all species.

Policy: Prior to closing any road, path, way, or trail to motorized use for wildlife protection purposes, land managers shall obtain concurrence from the Millard County Commission. Commission concurrence shall be based on agency evidence documenting site specific and cumulative data regarding traffic counts, vehicular speed, number and severity of conflicts,

species mortality, and comparative data with other roads, paths, ways and trails in the wildlife management unit.

Implementation Action: Roads paths ways and trails should be opened or re-opened to the maximum extent allowed by law to manage fishing, hunting and wildlife viewing and to support the County's custom, culture and heritage.

Finding: Properly designed, implemented and maintained habitat vegetation treatments benefit a variety of species. It is impractical to attempt to design a treatment to maximize the benefit to a particular species without impacting other competing species.

Policy: Habitat vegetation treatments shall be designed, implemented and maintained to optimize the harmonious benefit of the major species occupying an area unless it has been designated by Millard County as a priority management area for one or more species.

Policy: Until such time as they are adjusted by the Millard County Commission, wildlife objectives for the various species in the respective UDWR wildlife management units shall be the wildlife objectives established by UDWR as of January 1, 2016. Unless otherwise approved by the Millard County Commission, when a wildlife population exceed Millard County's population objectives by more than 10% in any wildlife management area, wildlife managers shall take steps to reduce the population to 90% of the objective by June 30, 2025.

Policy & Criteria: Where forage supports livestock and wildlife grazing, and as forage quantities increase over the course of time, available forage shall be allocated on the following priority:

1. Active and inactive permitted AUMs for livestock use.
2. Suspended AUMs for livestock use.
3. Wildlife up to 100% of objective or existing population, whichever is less.
4. 50% for additional livestock use and 50% for additional wildlife objectives, unless otherwise coordinated between state and federal agencies and Millard County.

Forage shall be allocated to item 1 before allocating any forage to item 2 and so forth through the priority schedule. Forage may be adaptively managed according to the schedule listed above during each grazing season when all of the allotted forage will not be used by the designated activity. Forage allocations will be reset to the prioritization listed above at the end of each grazing year.

Policy: Habitat treatments will be generally designed, implemented and maintained based on attaining a balance between different wildlife species and other resources and uses. Where

UDWR and Millard County collectively agree species specific needs are a concern, design, implement and maintain habitat treatments to improve or maximize habitat function for the designated species.

Finding: UDWR's statewide wildlife management plans provide a general framework of biological function and range for the designated species. However, the statewide plans lack sufficient specificity to properly manage wildlife in Millard County.

Policy: Millard County and UDWR will cooperate and coordinate to develop site specific wildlife management plans for species and wildlife management units in Millard County. To the maximum extent allowed by law, land managers shall be consistent with the County/UDWR site specific plans.

Policy: Land managers shall design, implement and maintain forest, range, riparian, and watershed habitat projects to enhance and improve aquatic and terrestrial species habitat.

Policy: Consistent with resource use, protection or enhancement identified in the Millard County RMP, fences shall be designed, constructed and maintained to accommodate wildlife and livestock movement and migration. Fences that demonstrate a specific impediment to wildlife and/or livestock, may be modified. Fences that are no longer needed may be removed. Fences may be marked as needed, and exceptions may be granted by the County Commission on a case by case basis.

Policy: Wherever possible, wildlife escape ramps will be installed and/or maintained in new and existing water tanks or troughs.

Policy: In areas designated by Millard County as priority management habitat, vegetation treatments shall be maintained at a seral stage that best benefits the target species.

Policy: Federal land managers shall analyze, consider and disclose local and cumulative statistical significance and severity of impacts when surface disturbing activities are proposed in priority management habitat. When impacts are statistically minimal or of low severity, surface disturbing impacts shall be allowed to proceed with the minimum reasonable best management practices. Where surface disturbing activities are determined to be statistically significant or severe in priority big game habitat, land managers shall employ avoid – minimize – mitigate protocols to reduce detrimental impacts.

Policy: Federal land managers shall analyze, consider and disclose local and cumulative statistical significance and severity of impacts when surface disturbing or disruptive activities are proposed within 0.25 mile of identified surface waters in waterfowl wintering habitat from

November 1st through March 15th and with nesting waterfowl from March 15th through July 15th. When activities benefit waterfowl or when impacts are statistically minimal or of low severity, surface disturbing impacts shall be allowed to proceed with the minimum reasonable best management practices. Where surface disturbing activities are determined to be statistically significant or severe, land managers shall employ avoid – minimize – mitigate protocols to reduce detrimental impacts.

Policy: Federal land managers shall analyze, consider and disclose local and cumulative statistical significance and severity of impacts when surface disturbing and disruptive activities are proposed in key migration corridors, in nesting habitat or in priority migratory bird habitats from March 15th to July 31st. When activities are:
a) compatible or consistent with enhancement, protection, or maintenance of priority management habitat or populations;
b) located or designed to eliminate or reduce detrimental effects to an acceptable level; or
c) statistically minimal or of low severity,
surface disturbing impacts shall be allowed to proceed with the minimum reasonable best management practices.
Where surface disturbing activities are determined to be statistically significant or severe in priority big game habitat, land managers shall
a) redesign or relocate the activity or
b) employ avoid – minimize – mitigate protocols to reduce or eliminate detrimental impacts to an acceptable level.

Policy: Prior to making any allotments unavailable for livestock grazing, land managers desiring to reduce livestock/wildlife conflicts shall analyze, consider and disclose local and cumulative statistical significance and severity of impacts of the individual allotments to the Millard County Commission. Land managers shall cooperate and coordinate with the County Commission and shall strictly comply with NEPA, CEQ Regulations, the Data Quality Act, the Regulatory Flexibility Act and other federal law. No allotments that have been available for livestock grazing any year from January 1, 2010 to the present shall be made unavailable with the intent of reducing wildlife conflicts without concurrence of the Millard County Commission. The Millard County Commission will consider and grant exceptions on a case by case basis.

Policy: Land managers shall analyze, consider and disclose local and cumulative statistical significance and severity of impacts when surface disturbing and disruptive activities impact wildlife migration/travel corridors in or designated as priority management habitat. When activities are:
a) compatible or consistent with enhancement, protection, or maintenance of priority management habitat or populations;

b) located or designed to eliminate or reduce detrimental effects to an acceptable level; or
c) statistically minimal or of low severity,
surface disturbing impacts shall be allowed to proceed with the minimum reasonable best management practices.
Where surface disturbing activities are determined to be statistically significant or severe to wildlife migration/travel corridors in or designated as priority management habitat, land managers shall
a) redesign or relocate the activity or
b) employ avoid – minimize – mitigate protocols to reduce or eliminate detrimental impacts to an acceptable level.

Finding & Policy: Prescribed and wildland fire have positive and negative impacts on a wide variety of resources, including wildlife. Fires, of all types, need to be wisely, carefully and judiciously managed. Millard County recognizes the advantages and problems with prescribed and wildland fire. Land managers shall analyze, consider and disclose local and cumulative statistical significance and severity of impacts regarding prescribed and wildland fire in priority management habitat. When prescribed or wildland fire is:
a) compatible or consistent with enhancement, protection, or maintenance of priority management habitat or populations;
b) located or designed to eliminate or reduce detrimental effects to an acceptable level; or
c) statistically minimal or of low severity, prescribed and wildland fire may be used for management purposes while employing aggressive best management practices.
Where prescribed or wildland fire is determined to have statistically significant or severe impacts to priority management habitat, land managers shall
a) redesign or relocate the activity or
b) employ avoid – minimize – mitigate protocols to reduce or eliminate detrimental impacts to an acceptable level.
All fire, prescribed and wildland, shall be managed consistent with all of the provisions of this Resource Management Plan and shall include appropriate, optimal provisions for reseeding and reclamation. The Millard County Commission will consider and grant exceptions on a case by case basis.

Finding & Policy: Water is vital to life in Millard County. Water is a key element in land health and the survival of the species that live on the land. Development of water in Millard County is beneficial to all land management activities, including wildlife. Millard County supports and encourages responsible water development for wildlife, livestock, and other water dependent species. Millard County supports and encourages water development in priority management habitats and other important habitats. Restrictions on responsible livestock related or other water development in priority management habitats, other important habitats and lands in general is inconsistent with the Millard County Resource Management Plan.

Finding: Given Millard County's rural nature, open landscapes and the more heavily impacted human developments that must be traversed in other areas of migratory routes, human impacts resulting in disappearing migratory bird breeding habitat, wintering habitat, and the travel corridors interconnecting them are not a significant factor.

Policy: For migratory bird actions, land managers shall prioritize and emphasize developing and enhancing healthy, vigorous and abundant migratory bird habitat rather than restricting human development when considering breeding habitat, wintering habitat, and the travel corridors interconnecting them.

References

Wildlife 2000,
The Riparian-Wetlands Initiative for the 1990s,
A Strategy for Future Waterfowl Habitat Management on Public Lands,
Watchable Wildlife, and Recreational Fisheries Program,
National Sage-grouse Habitat Conservation Strategy (BLM 2004c)
Utah's Raptor Best Management Practices (BMPs) (BLM 2006a)

Utah Statewide Pronghorn Management Plan, 2009
Utah Statewide Elk Management Plan, 2015
Utah Statewide Mule Deer Management Plan, 2014
Utah Black Bear Management Plan, 2011
Utah Cougar Management Plan, 2015

2.8.3 Predator Management

Introduction

Ever since man began occupying the planet, he has attempted to control his environment to provide safe, healthy and productive living conditions. Whenever a group of individuals colonized an area, one of their first activities was to eliminate or control undesirable species, particularly those that threatened their personal safety and the productivity of their crops and animals. It was no different when the west was colonized; and the same philosophy is equally valid today. We observe man controlling his environment in urban settings, and he has an equal opportunity and responsibility to appropriately manage his surroundings in Millard County, including the management and control of predators.

Current Setting

Predator / prey relationships can be very complex and encompass the entire, multi-level ecological spectrum. To a large extent, every species is a predator to the species it uses for food and prey to the species which use it for food. In the context of this Resource Management Plan, predators will be limited to those species which cause significant damage to desirable resources, particularly wildlife (including special status species) and livestock. No effort is made to create a complete list of all predators, but principles described herein are applicable to a wide variety of circumstances and may be applies as adaptive management principles. The plan specifically addresses large carnivores that are common to the County (cougar, coyote, bears, and ravens). The Plan will also identify management actions for wolves, in consideration of the significant danger or threat they cause to man, livestock, wildlife, and desired ecologic conditions. No effort will be made to discuss small carnivores, except in Section 2.7 in connection with special status species. It is recognize that predator management is becoming increasingly controversial, particularly for those individuals who:
a) do not live in the area;
b) are not impacted by actions of predators; and
c) reside in urbanized areas where predators have been completely eradicated.

North America settlers recognized the need to control predators when they colonized the continent. Predator extirpation was one of the early activities of many colonial, territorial and state governments. For instance, in 1630, the Massachusetts settlers adopted a bounty on wolves, and one of the first political actions taken by Oregon Territory settlers was establishing assessments to pay for predator bounties. By the early 1900s, the federal government was controlling wolves on forest lands in exchange for livestock grazing fees. The goal of all of these programs was to drastically reduce or eliminate predators that were causing damage to desired programs and were a threat to societal desired conditions.

Currently, predator control programs are managed primarily by UDWR and are augmented by local county programs and activities conducted by the U.S. Fish & Wildlife Service (USFWS). The State of Utah has provided funding to the USFWS for coyote control, specifically to help reduce coyote populations in areas where deer fawn survival is low. Coyotes are not a protected wildlife species, and there is a bounty program to encourage coyote control. In addition, targeted efforts using hunters and trappers helps ensure removal of coyotes from the targeted areas, during the appropriate seasons to improve fawn survival.

UDWR also is working to limit the impact of cougars on Utah's deer herds, while maintaining a healthy cougar population statewide. Cougar harvest has been liberalized where mule deer or bighorn sheep populations fall below the population management objective, and where adult deer or bighorn sheep survival is lower than normal. More detail can be found in the Utah's Statewide Cougar Management Plan. Programs conducted by UDWR to control predators include:

• Ravens, coyotes, red foxes, and badgers that prey on upland game birds/eggs, and waterfowl

• Raccoons and red foxes that prey on upland game birds/eggs and waterfowl/eggs

• Cougars that prey on mule deer or bighorn sheep

• Coyotes that prey on mule deer fawns or pronghorn fawns

Of these programs, the one that targets coyotes is the largest and most costly. Appropriately targeting and timing of predator removal is essential for reducing the impact that coyotes have on fawn survival. In Utah, targeted contracts allow removal of coyotes from fawning grounds from March through August, and the coyote bounty program is most effective during the coyote breeding season (January–March).

Utah's Mule Deer Protection Act went into effect in July of 2012. The primary goal of the program was to remove coyotes from areas where they may prey on deer fawns. The Utah Legislature set aside $500,000 from the General Fund to pay individuals to kill coyotes in Utah. To process the payments and track harvest and participation, UDWR created the General Predator Control Program. This took the place of previous coyote bounty programs administered by participating counties.

UDWR established locations throughout the state where people can check-in coyotes for a $50 payment. Each participant is required to submit the scalp of the animal with both ears attached, the lower jaw, and a data sheet reporting where the coyote was killed. Approximately 7,000 coyotes were taken under the bounty program each year for the first two years of the program. In 2015, nearly 8,200 coyotes were submitted for bounty payments. Completed reports, including maps depicting results of the coyote control program can be found at https://wildlife.utah.gov/hunting-in-utah/hunting-information/762.html.

Success of coyote control under the Mule Deer Protection Act has varied across the state. Six mule deer management units (Box Elder, West Desert, Southwest Desert, Fillmore, Beaver, and Pine Valley) accounted for approximately 50% of all coyotes removed. The bounty program likely increased the number of coyotes killed in Utah and provided government-supplied economic rewards to individuals and businesses throughout the state. It may take several years of program implementation before improvements in fawn/doe ratios are observed. Both location and timing are essential in reducing the impact of coyote predation on mule deer fawn survival.

An essential element of the authorizing legislation is the requirement for UDWR to coordinate its targeted predator control activities with local governments. This plan serves as the basis for that coordination until modified by the Millard County Commission.

At times, two additional wildlife species exhibit predatory behavior in Utah: black bears and cougar. Both of these species are managed under specific plans. Utah's Black Bear

Management Plan is located at https://wildlife.utah.gov/bear/pdf/2011_plan.pdf, and the Cougar Management plan can be found at https://wildlife.utah.gov/pdf/cmgtplan.pdf.

Black bears occur in stable, healthy populations across certain parts of Utah. Normally, they don't occur in the mountain ranges of the western deserts. Geographic Information System (GIS) data showing black bear distribution and hunt boundaries can be downloaded from UDWR's Index of Available GIS Data website. Bears are more of an omnivore than a carnivore, and the vast majority of their diet is composed of plant material and, at certain times of year, insects or insect larvae. Often when bears do eat meat, they are relying on carrion which they have happened upon, not fresh prey. Black bears can also cause site-specific depredation problems among livestock, especially domestic sheep bedded down for the night during the summer months.

Although cougars prey primarily on adult deer, they are opportunistic predators, and can also cause site-specific livestock depredation problems. Livestock depredation incidents are immediately referred to Wildlife Services staff specializing in removal of specific predators associated with depredation incidents. UDWR provides compensation to ranchers with documented livestock losses attributed to cougar or bear. UDWR also issues increased cougar and bear permits in areas with chronic livestock losses caused by predation from these species.

Wolves, although not currently present in Millard County, are recognized for their threatening and dangerous impact. As mentioned above, one of the first management acts of early American and Oregon settlers was to control wolf populations, and early pioneers in the intermountain west took similar action. Wolves exhibit behavior patterns, such as cooperative hunting in packs, which clearly separate them from bears and other predators. By any measure, wolves are highly effective and efficient predators. Currently, there are not any established breeding populations of wolves in Utah. However, there are occasional transients and migrants.

The Wolf Management Act created by Senate Bill 36 of the 2010 General Legislative Session directed the Division of Wildlife Resources to prevent any wolf packs from establishing in the portion of the state where wolves are removed from the protection of the Endangered Species Act. That area includes only the portion of Utah located north of I-80 *and* east of I-84. UDWR has granted authority to the U.S. Department of Agriculture-Wildlife Services to act on the State's behalf to resolve livestock depredation incidents which involve wolves in the statutorily defined area.

For the remainder of the state, including Millard County, wolves are classified as a federally endangered species, and management authority lies with the U.S. Fish and Wildlife Service (FWS). The state law referenced above also directs the Division of Wildlife Resources to request that the FWS immediately remove any wolves discovered in areas of Utah where they are still protected under the Endangered Species Act. The Utah Wolf Management Act suspends the portion of UDWR's Wolf Management Plan that would allow two packs to become

established in Utah, although the remaining strategies of the plan are still in effect. If wolves are delisted across all of Utah, the management plan then would be fully implemented. Wolves do not present significant predator management challenges to wildlife managers in Millard County at this time (January 2020).

Ravens, although protected by the Migratory Bird Act, are one of the most detrimental predators and impose significant damage on upland game birds. However, an upland game bird management areas is located in Millard County, and predation by ravens is very limited.

The Animal Damage Control Act of 1931 directs federal agencies to protect livestock, property, wildlife, and public health and safety from damaged caused by predators. In Southern Utah Wilderness Alliance et al. v. Thompson, H. et al., Forest Supervisor (U.S. District Court of Utah, Civil No. 92-C-0052A) the court ruled agencies need not show a certain level of damage is occurring before it implements a predator control action. The Court further ruled the agency need only show that damage from predators is threatened.

Need for Management Change

1) Man's authority and responsibility to prevent the loss of life, property and wildlife through appropriate predator control needs to be recognized.

2) Federal, state and local entities need to continue improving cooperation and coordination associated with predator control.

3) Land managers need to be consistent with state and local wildlife and predator management plans to the maximum extent allowed by law.

4) Ravens need to be controlled in general habitat and eradicated in areas designated as priority habitat. Millard County recognizes the significant conflict in designations among the various agencies. Land managers should apply control and eradication efforts consistent with their adopted plans until agreement is reached.

5) Millard County needs to take every reasonable action to prevent the introduction of wolves in the County.

Desired Future Conditions

Millard County desires:

a) Millard County's authority and responsibility to prevent the loss of life, property and wildlife values through appropriate predator control and this management plan be fully and completely recognized and respected.

b) Federal, state and local entities continue improving cooperation and coordination associated with predator control.

c) Ravens be significantly controlled in general habitat.

d) Predators in Millard County are controlled in a manner that supports resource use consistent with the County's Resource Management Plan.

e) No wolves are allowed to enter Millard County.

Findings, Policies, Goals & Objectives

Finding: Coyotes and mountain lions are common predators in Millard County. While predators are important to a balanced ecosystem, in some areas of the state, these predators endanger the establishment of new wildlife populations, or contribute to the decline of existing species, and must be controlled.

Policy: Millard County supports existing and enhanced bounties and predator control programs instituted to protect wildlife, livestock, and human health and property.

Finding & Policy: Predator management can be effective when well-defined predator impacts are identified. When human life, property, livestock or sensitive wildlife are threatened or endangered by predators, controls must be implemented to arrest population declines. Predator management is a valuable and legitimate wildlife management/conservation tool.

Policy: Predator management is a tool that should be applied efficiently and strategically. Predator management may include but is not limited to lethal removal of predators – including corvids, non-lethal management of predators, habitat management to promote more robust prey populations which are better able to sustain predation, and adaptive management options.

Finding: Predators generally impact a large portion of their prey's range and create direct impact on priority species populations. Human disturbances impact a relatively small portion of the range of priority species in Millard County and only create indirect impacts on priority species.

Policy: Millard County supports integrated predator management, including the use of all available tools and the most up-to-date science, including strategic use of lethal predator control, to optimize wildlife and other desired uses.

Goal: Manage coyotes, mountain lions, bears, corvids and other predators to minimize conflicts with humans, priority wildlife species and livestock.

Policy: Land managers shall develop site-specific management plans when predators inhibit the ability of UDWR or Millard County to attain management goals and objectives for priority wildlife species and livestock. Statewide management goals and objectives can be found in UDWR's documents and websites. Site specific management plans for the targeted predator species shall be consistent with the County's management goals and objectives and shall comply with biological and legal constraints. Threats to human health and safety will be handled on a case by case basis or in accordance with any Millard County and UDWR wildlife/human interaction policy.

Finding: In cooperation and coordination with state and local entities, federal agencies are authorized and directed to resolve conflicts involving animals preying on, or harassing, livestock and wildlife, damaging property or threatening human health and safety.

Policy: Predator management and control shall be conducted in compliance with relevant state and local laws, regulations, policies, ordinances, and procedures.

Finding: The Animal Damage Control Act of 1931 directs federal agencies to protect livestock, property, wildlife, and public health and safety from damage caused by predators.

Finding: Inasmuch as there have been no wolves in Millard County for multiple generations, the Millard County Commission finds there is no wolf critical habitat, no wolf priority habitat, no wolf general habitat, and no wolf habitat of any kind whatsoever within the County boundaries.

Policy & Implementation Action: Millard County adopts a strict 'No Wolf' policy for all lands in Millard County. To the maximum extent allowed by law, Millard County will establish criminal penalties for land managers that fail to prevent wolves from entering Millard County.

2.9 Fire Ecology & Management

Current Setting

Fire is a natural and historical component of ecological processes in Millard County. Historically, fire has played an important role in the promotion of plant succession and the development of plant communities and wildlife habitat. The environment created prior to European settlement was developed under a regime of natural and man-induced intermittent fire. Artificial suppression of fire during the past century combined with several decades of passive federal land management have changed plant communities and resulted in conditions that are often incapable of resilience from and resistance to fire. These conditions have led to an imbalance in fire adapted plant and animal communities and an increase in extreme wildfire potential. Management on public lands has resulted in vegetation and fuel loadings that support uncharacteristically large, catastrophic fires. Complicating management further, fire susceptibility and behavior vary with many factors, including vegetation type, topography, stand health/density, drought, wind, and site productivity.

Millard County's fire management program focuses on two general categories of fire: unplanned ignitions (wildfires) and planned ignitions (prescribed fires). Lands in Millard County are managed by the Central Utah Fire Management Plan. The fire management plan (FMP) was prepared in response to the Federal Wildland Fire Management Policy, which directs federal agencies to have an FMP for all areas with burnable vegetation.

National fire management policy has evolved in response to increased fatalities, property losses, local economic disruptions, risks to ecosystems associated with increasingly severe wildland fires, and increasing wildland urban interface (WUI) conflicts. National policy requires that federal fire management practices reflect protection of human life and safety and reduce risk to natural resources and private property. This section of Millard County's Resource Management Plan provides fire management direction that is compliant with national and interagency direction.

Millard County's fire management program requires coordination among local and regional jurisdictions, including the BLM, Forest Service and Utah Department of Forestry, Fire and State Lands. The FMP, in accordance with federal policy, provides for firefighter and public safety and include fire management strategies, tactics, and alternatives based on direction outlined in RMPs. Suppression tactics outlined in the FMP vary by vegetation type and resource values at risk. Land use management direction influenced portions of the FMP that include lands managed by the various state and federal agencies. A vast majority of the land in Millard County is under federal ownership, so details regarding methodologies for prescribed fires, non-fire fuels

treatment, community assistance/protection procedures, emergency stabilization, and rehabilitation for federal lands are applicable to federal agencies.

National and state fire policy for federal agencies requires current and desired resource conditions related to fire management be described in terms of five fire regimes and three condition classes tabulated below. The Healthy Forest Restoration Act adopted this classification system, known as the Fire Regime Condition Class (FRCC), which describes the amount of departure of an area or landscape from historic vegetation conditions to present vegetation conditions. This departure from the natural state can be a result of changes in one or more ecosystem processes. This information can be used to prioritize areas for treatment.

Fire Regimes
I (0-35 year frequency and low to mixed severity-surface fires most
II (0-35 year frequency and high severity-stand replacement fires)
III (35-100+ year frequency and mixed severity)
IV (35-100+ year frequency and high severity-stand replacement fires)
V (200+ year frequency and high severity-stand replacement fires)

Fire Regime Condition Classes defined vegetative communities in terms of the relative risk of losing one or more key components that define an ecological system based on five ecosystem attributes—disturbance regimes (patterns and frequency of insect, disease, fire), disturbance agents, smoke production, hydrologic function (sedimentation, stream flow), and vegetation attributes (composition, structure, and resilience to disturbance agents). Condition Classes are described as follows:

Condition	Condition Class Description
Condition Class 1	Fire regimes are within an historical range and the risk of losing key ecosystem components is low. Vegetation attributes (species composition and structure) are intact and functioning within an historical range. Where appropriate, these areas can be maintained within the historical fire regime by treatments such as fire use.
Condition Class 2	Fire regimes have been moderately altered from their historical range. The risk of losing key ecosystem components is moderate. Fire frequencies have departed from historical frequencies by one or more return intervals (either increased or decreased). This results in moderate changes to one or more of the following: fire size, intensity and severity, and landscape patterns. Vegetation attributes have been moderately altered from their historical range. Where appropriate, these areas may need moderate levels of restoration treatments, such as fire use and hand or mechanical

Condition Class 3	Fire regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high. Fire frequencies have departed from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, intensity, severity, and landscape patterns. Vegetation attributes have been significantly altered from their historical range. Where appropriate, these areas may need high levels of restoration treatments, such as hand or mechanical treatments, before fire can be used to restore the historical

Lands classified as Condition Class 1 have the smallest amount of acres in Millard County. Some estimates indicate fire regimes within the historical range make up less than 5% to 10% of all lands in the County, and some agencies may have less than 2% within their specific jurisdiction. Class 2 lands are estimated to be 10% to 20% of the County's land base. Lands identified as Condition Class 3 make up the vast majority of lands in Millard County. Some estimates indicate lands where fire has been significantly altered from the historic condition comprise as much as 60% to 90% of the County.

Federal agencies have also divided the County into fire management units (FMUs) defined by fire management objectives, management constraints, topographic features, access, values to protect, political boundaries, and fuel types. The FMUs generally have prescribed management objectives and preselected fire suppression strategies assigned to accomplish the specific objectives.

Fuel structure in the County is gradually changing due to management practices and incursion of non-native annual grasses, especially cheatgrass, and the encroachment of pinyon/juniper woodlands. In areas where fuels are continuous, there is the potential for fires to spread readily and rapidly during the height of the average fire season. Much of this area is grouped typically in fire regimes I and II, but many of the pinyon and juniper stands have much older stand characteristics, which often have heavier fuel accumulations and burn with stand replacement fire behavior. Extensive areas exist where vegetation is dominated by native and non-native grasses that are susceptible to wildfire and sufficient barriers limit the spread of wildfires do not exist. Most are dry sites where the vegetation is of a moderate to old age class distribution. In specific locations, cheatgrass has significantly increased from historically inhabiting scattered pockets to becoming a dominant fine fuel component intermixed with sagebrush and pinyon-juniper stands. Vegetative communities dominated by Rye grass also exhibit characteristics that are susceptible to fire.

The moderate to long return fire interval, fire exclusion and other management practices, and passive management of forests and rangelands have rendered many of the vegetative communities in peril of large severe wildland fires. These areas have achieved a level of

vegetation stocking and dead and down fuel loads to exacerbate large fire spread through the dry seasons of the year. Recent insect and wind episodes have also increased fuel loadings in localized areas to critical levels.

The hazard component varies across the County from very low to very high. Mature stands of pinyon/juniper woodlands inhabit much of the lands formerly occupied by sagebrush vegetative communities. Decadent stands of sagebrush are common. Insect-killed forest stands also contribute to high hazard areas. Cheatgrass and rye grass dominate lowlands establishing conditions susceptible to large wildfires.

Historically, the most prolific wildfire events have been wind-driven, especially in the grass and brush plant cover types. Plume- dominated fires have occurred particularly during very dry years in the older stands of pinyon-juniper and the mixed conifer stands. Rates of fire spread through the canopies of sagebrush can exceed three miles per hour, while spread through mixed conifer and pinyon-juniper stands of one-half mile per hour are not uncommon. Periods of better than average moisture tend to keep the light fuels (i.e., grasses) green, which helps curtail fire progression. The incursion of annual grasses, such as cheatgrass, is changing the fire environment. Light fuels available to burn through the height of the fire season are becoming more abundant by way of the species morphology. Much of the timbered lands in the County experience long return intervals between fire events. Burn severity in these communities tends to be moderate to severe resulting in stand replacement of the dominant species. Examples of these vegetation types are high elevation sub-alpine fir and spruce and some pinyon-juniper stands. Examples of a more moderate to frequent return interval would be sage/grasslands and the lower elevation shrub communities.

Wildfire in many of Utah's vegetation communities was historically a regular occurrence that helped define species composition, structure, and productivity. As such, many plants that make up these communities are adapted to withstand wildland fire. Grasslands, sagebrush, mountain shrub, aspen and mixed conifer forests are examples of fire-adapted communities in Utah. In contrast, frequent wildland fire is not part of the normal ecology of other vegetation communities with long fire return intervals such as salt-desert scrub, which typically are not dominated by fire adapted species. Fire in these communities is generally viewed as detrimental because plant succession may take decades to centuries for the vegetation to recover. Some species may never recuperate.

The widespread presence of invasive non-native species has greatly altered the resource character and values across the landscape and may pose an even greater threat in the future. Historic post-fire recovery processes may no longer dominate the recovery and regeneration process due to introduced species. Cheatgrass and some of the knapweeds are known to

alter (shorten) fire return intervals and may dramatically expand their range and coverage after fires. Degraded communities may facilitate expansion of invasive species (e.g., cheatgrass), have lower biological resource values, and pose increased fire hazards. For location of acres and additional descriptions of these vegetation types in the planning area, refer to agency specific fire management documents.

Land management agencies use planned ignitions (prescribed fires) in a controlled manner for specific purposes, such as improving habitat, plant community health, including protection and enhancement of desirable age class stands, and reducing hazardous fuels. Projects in agency fuels programs generally focus on achieving two goals:
(1) reducing fire hazard, with an emphasis on Wildland Urban Interface (WUI) areas, and
(2) restoring and/or improving FRCC.
These goals supported through interdisciplinary partnerships such as the Utah Watershed Restoration Initiative (UWRI). Together, these partnerships identify priority watersheds to address a variety of interdependent resource issues and improve long-term watershed conservation and restoration.

Specific watersheds are targeted and prioritized for treatment and are coordinated through participating federal, state and local entities. Treatment types include prescribed fire and mechanical and chemical treatments. These treatments are completed for a variety of reasons, including fuels reduction, protecting WUI areas, improving wildlife habitat, improving watershed conditions, and improving rangeland resources. Prescribed burns, if conducted properly, will also return less carbon dioxide to the atmosphere than uncontrolled wildfires, which helps to maintain the carbon dioxide sequestration capacity of vegetation communities.

Most prescribed fire projects on public lands in the planning area are closely tied to habitat, watershed, and other natural-resource objectives, and hazardous fuels reduction. These projects are almost always followed by seeding/planting and additional vegetation enhancement work. Prescribed burns are carried out to reduce fuel loads (existing dead and dormant vegetation) and reduce the threat and severity from wildfires should one occur. Prescribed burns also reduce woody plant encroachment and are beneficial for many native plant species in a way mechanical and chemical management treatments cannot duplicate. Wildlife, both game and non-game species, also benefit from prescribed burning which results in new plant growth and restoration of habitats which they utilize for food and cover. Purposes for conducting prescribed burn activities may include

- Reduce hazardous fuels, protect communities from wildfires
- Reduce the spread of pests and disease
- Provide habitat and forage for game and non-game species
- Recycle nutrients back into the soil

- Promote desirable native and non-native species
- Promote a diverse natural landscape

Drivers for future increases in wildland fires in the County include steady increases in live and dead fuels, continued encroachment of invasive annual grasses and conifer woodlands into sagebrush and native grass areas, and unfavorable climatic conditions. Indicators of stress on vegetation in the planning area include periods of drought, expansion of invasive weeds such as cheatgrass, and reduced areas of sagebrush presence.

Fire frequency and fire severity are expected to be higher than historical levels because most of the County is in FRCC 2 and FRCC 3 condition. It is expected that due to the current fire regime conditions in the County and factors affecting wildfires (e.g., invasive weed control, vegetation management issues, drought, and timber harvest), FRCC categories will be maintained at or in excess of their current conditions. Based on current management, prolonged drought conditions and establishment of invasive species, the potential for uncharacteristic wildfire effects will likely continue. It is also anticipated that under present management, live and dead fuel loadings in forest stands and conifer/juniper encroachment into aspen and higher-elevation sagebrush communities will continue to increase with a proportional increase in the risk for wildfires with potentially uncharacteristic fire effects.

Need for Management Change

1) Lands in in FRCC 2 and FRCC 3 condition need to be significantly reduced.

2) Prescribed fire needs to be used as part of an integrated approach after mechanical, chemical, grazing, and vegetative harvesting techniques have been appropriately used.

3) Managers need to harvest an average of at least 0.5% of the high risk stands annually for the next 20 years to restore woodlands to desirable Fire Regime Condition Classes.

4) Managers need to implement aggressive vegetative treatments to restore vegetative resources to desirable Fire Regime Condition Classes.

5) When managing for potential climate cycle changes, managers need to reduce areas in FRCC 3 by at least 0.5% annually.

6) Managers need to be consistent with Millard County's fire ecology and management plans, programs and policies, including air, water quality, vegetation and other impacted resources. Land managers need to coordinate wildfire management and prescribed fire programs with Millard County.

7) Managers need to reduce fire hazards for WUI areas and around other infrastructure through non-fire fuel treatments prior to implementing prescribed fire.

8) Effective emergency stabilization and rehabilitation programs need to be incorporated in all wildland and prescribed fire events.

9) Additional width or vegetation that is resistant to fire needs to be provided on roads, rights-of-way and other disturbances to create fire breaks that will reduce the impacts of wildfire.

Desired Future Conditions

Millard County desires:

a) Resources are managed to ensure fire resilience and resistance. Desired FRCCs in Millard County are: 30% to 50% FRCC1; 30% to 40% FRCC2; and less than 25% FRCC3.

b) Prescribed fire is used as part of an integrated approach after mechanical, chemical, grazing, and vegetative harvesting techniques have been appropriately implemented.

c) An average of at least 0.5% of the high risk stands are harvested annually for the next 20 years to restore woodlands to desirable Fire Regime Condition Classes.

d) Managers implement aggressive vegetative treatments to restore vegetative resources to desirable Fire Regime Condition Classes.

e) Areas identified as FRCC3 and managed for potential climate cycle changes are reduced by at least 0.5% annually.

f) Managers are consistent with the County's plans, policies and programs for fire ecology and management and impacted/related resource values.

g) Managers prevent fire related impacts to WUI areas and other areas occupied by infrastructure.

h) Aggressive and effective emergency stabilization and rehabilitation programs are incorporated in all wildland and prescribed fire events.

i) Additional width or vegetation that provides greater resistant to fire is provided on roads,

rights-of-way and other disturbances to create fire breaks that will reduce the impacts of wildfire.

Finding Policy, Goals & Objectives

Policy: Public health, safety and welfare and firefighter safety are compatible, co-equal priorities for wildland and prescribed fire management in Millard County. All fire management plans and activities shall maximize:
a) public health, safety and welfare and
b) firefighter safety.

Finding: Land managers have failed to adequately manage resources in Millard County to provide resilience and resistance to wildfire.

Finding: Wildfires impact a wide variety of the County's resources and can be reasonably controlled by implementing an integrated approach of mechanical, chemical, grazing, and harvesting techniques to provide resilience and resistance to wildfire.

Policy, Goal & Objective: Managers shall maintain resources in a condition that they are resilient and resistant to fire, including rehabilitation and restoration efforts undertaken to protect and sustain ecosystems, public health and safety, and to protect infrastructure.

Policy, Goal & Objective: Consistent with the County's plans, policies and programs for fire ecology and management and impacted/related resource values, land managers shall implement an aggressive integrated program to ensure all lands in Millard County are resilient and resistant to fire and to restore woodlands to desirable Fire Regime Condition Classes.

Policy: Lands in Millard County will be deemed to be making progress toward resilience and resistance when the following ranges for Fire Regime Condition Classes are met:

FRCC 1	30% to 50%
FRCC2	30% to 40%
FRCC3	Less than 25%

Finding & Policy: Positive impacts of wildland fire can be mimicked through integrated mechanical, chemical, grazing, and harvesting techniques that provide resilience and resistance to wildfire.

Policy: Where fire is used to as an ecological process and natural change agent lands will be seeded and restored to desirable vegetative conditions prior to the first rainy season

following the burn.

Policy, Goal & Objective: An average of at least 0.5% of the high risk stands shall be harvested annually in Millard County for the next 20 years to restore woodlands to desirable Fire Regime Condition Classes.

Finding & Policy: Allowing lands to remain in FRCC3 is inconsistent with managing for potential climate cycle change. Where land managers are required to manage for potential climate cycle change, FRCC3 lands in their jurisdiction shall be reduced by at least 0.5% annually.

Policy, Goal & Objective: Based on a 10 year rolling average and consistent with desired ecological site descriptions, at least 2.5% of the Class II and Class III pinyon/juniper woodlands having a median age of less than 200 years shall be restored to sagebrush / semi-desert grassland vegetation communities.

Finding & Policy: Bull hogging (mechanical shredding), accompanied by appropriate seeding, is the environmentally preferred method of vegetative treatment in Class II and Class III pinyon juniper woodlands. Bull hogging and seeding shall be prioritized over use of fire in restoring Class II and Class III pinyon juniper woodlands to desirable vegetative communities.

Policy: Prescribed fire is most judiciously used after thinning, harvesting, mechanical mastication, and other treatment techniques are completed.

Policy, Goal & Objective: Aggressive and effective emergency stabilization and rehabilitation programs shall be incorporated in all wildland and prescribed fire events.

Policy, Goal & Objective: Unless otherwise approved by Millard County and consistent with ecologic site conditions, the following minimum objectives are established when lands are treated with prescribed fire or experience wildland fire in sagebrush habitats:

1. Retain 40 percent ground cover after the burn with recruitment to 60 percent ground cover before the first rainy season following the burn.
2. Cupped fire lines should have water gaps every 20 feet to allow captured water to exit.
3. Existing disturbance areas, such as roads and trails, should be used as fire lines to the greatest extent possible.

Policy: Land managers shall prevent fire related impacts to WUI areas and other areas occupied by infrastructure.

Finding & Policy: All wildland and prescribed fires impact air quality. Prior to wildland or prescribed fire, land managers shall analyze and disclose ambient and proposed air quality conditions, including best available control technologies (BACTs) that can be implemented to reduce air quality impacts.

Policy: Land managers shall initiate BACTs, including commercial harvesting of excess fuels and other methods for reducing potential fire related air pollutants and for achieving harmony between man and his environment.

Policy: Managers of wildland and prescribed fire shall comply with Millard County Air quality plans, policies, programs and ordinances.

Policy: Millard County will cooperated and coordinate with federal, state and local entities to address barriers and challenges associated with fire and fuels management in areas impacting the County's resources.

Finding & Policy: Restoration of a natural fire regime is neither desirable nor attainable. As a result of past management and the extent of vegetative ecosystem alteration, natural conditions no longer exist in the County. While it is known that there have been large vegetation alterations since historical times, the extent or severity of most of these alterations remains uncertain. As a result of ecosystem change, passive restoration techniques, such as restoring naturally occurring fires to the land, would not have the same benefit to ecosystems as in the past. Without active restoration techniques, fires dramatically increase resource damage which could result in the permanent loss of historical ecosystem structure and function.

Finding & Policy: The principles and policies in this plan provide an optimum approach to wildland and prescribed fire management on federal, state and local lands. Managers are encouraged to use fire as a tool for accomplishing resource management objectives after other integrated management techniques have been exhausted. Consistent with public health and ecologic processes, agencies are encouraged to emphasize active, integrated resource management over passive fire suppression.

Policy, Goal & Objective: Land managers shall incorporate emergency stabilization and burned-area rehabilitation as part of a holistic approach to addressing post wildland and prescribed fire impacts and shall include suppression activity damage and long term restoration. Emergency stabilization shall be completed 1 year of wildland fire containment. Short-term actions shall minimize and mitigate threats to life or property, and stabilize/prevent unacceptable degradation to natural and cultural resources resulting from the effects of fire. Burned area rehabilitation to repair or improve damaged lands to acceptable conditions or to repair or replace facilities damaged by fire shall be completed within 3 years the fire event.

Policy: The use of fire in priority, crucial, and general wildlife habitat shall be allowed when compatible with protection, maintenance, enhancement, or development of desirable habitat conditions.

Finding & Policy: Fire is often a destructive force that impacts sensitive species. The use of motorized vehicles to construct fire lines and control fire in habitat for special status plant and animal species is allowed.

Policy: Low intensity ground fires from natural or management ignitions in ponderosa pine or aspen stands are allowed.

Policy: The full range of upland vegetation treatment methods and tools (i.e. chaining, plowing, bull hog, pipe harrow, hand cutting, herbicide, aerial seeding, drill seeding, and broadcast seeding) are encouraged and allowed prior to the use of prescribed fire in vegetative treatment and enhancement projects.

Policy: The use of native and non-native seeds for fuels management treatment shall be based on availability, adaptation (site potential), and probability of success. Desirable non-native seeds may be used to meet objectives. When reseeding, use of fire resistant native and desirable non-native species for fire breaks is allowed.

Policy: Where land managers implement an integrated approach using the full range of upland treatment methods, prescribed burning shall be allowed on all suitable lands up to 20% of the lands within the manager's jurisdiction.

Policy: In post burn areas stabilization and rehabilitation shall be completed within two growing seasons. Changes in livestock grazing shall be limited to two full growing seasons or less.

Policy: Landscape Wildland Fire and Invasive Species Habitat Assessments shall be developed in cooperation and coordination with Millard County and shall be consistent with the County's RMP to the maximum extent allowed by law.

Finding & Policy: Millard County's plan program and policy for wildland and prescribed fire provides the highest and best management across agency boundaries. Annual treatment needs for wildfire and invasive species management as identified in local unit level Landscape Wildfire and Invasive Species Assessments shall be coordinated across jurisdictional boundaries and shall be consistent with Millard County's RMP.

Finding & Policy: Lands impacted by wildland fire no longer retain desirable qualities of naturalness, solitude, or opportunities for primitive, unconfined recreation and no longer exhibit wilderness characteristics. Lands impacted by natural fire shall not be managed for wilderness values until such time as native vegetative communities consistent with ecologic site descriptions are restored and the visual effects of fire are eliminated.

Finding & Policy: Post fire restoration and rehabilitation of lands managed for wilderness character is prioritized over management for wilderness values that have been impaired due to wildfire. Use of vehicles, motorized tools and other restoration and rehabilitation techniques that optimize recovery of desirable vegetative communities and eliminate the visual effects of fire shall be allowed in areas formerly managed for wilderness characteristics.

Finding & Policy: Lands managed for wilderness values that have been impacted by wildfire are impaired and no longer qualify for wilderness management until such time as the ecologic and visual impacts of the fire event are eliminated.

Policy, Goal & Objective: Land managers shall provide additional width or vegetation that is resistant to fire on roads, rights-of-way and other disturbances to create fire breaks that will reduce the impacts of wildfire. Land use plans shall consider at least one alternative that transfers lands needed for fire breaks to County jurisdiction.

References:

Central Utah Interagency Fire Management Plan, Fishlake National Forest, Richfield BLM Field Office, Fillmore BLM Field Office, 2010

Using Resistance and Resilience Concepts to Reduce Impacts of Invasive Annual Grasses and Altered Fire Regimes on the Sagebrush Ecosystem and Greater Sage-Grouse: A Strategic Multi-Scale Approach, Chambers et al., September 2014

2.10 CULTURAL RESOURCE MANAGEMENT

Introduction

Cultural resources are sensitive, irreplaceable resources with potential public and scientific uses, and are an important and integral part of Millard County's national and local heritage. Cultural resources constitute "a definite location of human activity, occupation, or use identifiable through field inventories (i.e., surveys), historical documentation, or oral evidence" (BLM Manual 8110).

The term "cultural resource" includes "historic or architectural sites, structures, or places with important public and scientific uses, and may include definite locations (i.e., sites or places) of traditional cultural or religious importance to specified social and/or cultural groups. Cultural resources are concrete, material places and things that are located, classified, ranked, and managed through the system of identifying, protecting, and utilizing for public benefit." Archaeological resources, a subset of cultural resources, are "any material remains of human life or activities that are at least 100 years of age, and that are of archaeological interest" as further defined in 43 CFR 7.3.

Ethnographic landscapes are broader resources that do not depend on NRHP eligibility criteria for their existence, and importantly, are identified and defined by the cultural groups associated with them rather than by historic preservation professionals.

The National Historic Preservation Act (NHPA) recognizes five property types: districts, sites, buildings, structures, and objects. As called for in the Act, these categories are used in the National Register of Historic Places (NRHP). National Park Service documents included in Appendix 2.10 explain the following: NPS categorizes cultural resources as archeological resources, cultural landscapes, structures, museum objects, and ethnographic resources.

Archeological resources are the remains of past human activity and records documenting the scientific analysis of these remains. Archeological resources include stratified layers of household debris and the weathered pages of a field notebook, laboratory records of pollen analysis and museum cases of pottery. Archeological features are typically buried but may extend above ground; they are commonly associated with prehistoric peoples but may be products of more contemporary society. What matters most about an archeological resource is its potential to describe and explain human behavior. Archeological resources have shed light on societal organization and have helped us understand the spread of ideas over time and the development of settlements from place to place.

Cultural landscapes are settings humans have created in the natural world. They reveal fundamental ties between people and the land – ties based on the need to grow food, form

settlements, meet requirements for recreation, and find suitable places to bury the dead. Landscapes are intertwined patterns of things both natural and constructed: plants and fences, watercourses and buildings. They range from formal gardens to cattle ranches, from cemeteries and pilgrimage routes to village squares. They are expressions of human manipulation and adaptation of the land.

Structures are material assemblies that extend the limits of human capability. They allow us to move beyond temperate climates, the distances we can walk and the loads we can carry. They include dwellings, fences & repositories, roads & bridges, vehicles, tools & machines, signs & monuments which demonstrate human productive ability and artistic sensitivity.

Museum Objects are manifestations and records of behavior and ideas that span the breadth of human experience and depth of natural history. They are evidence of technical development and scientific observation, of personal expression and curiosity about the past, of common enterprise and daily habits. Museum objects range from a butterfly collection to the woven fragments of a prehistoric sandal. They include the walking cane of an American president, a blacksmith's tools, and the field notes of a marine biologist. They encompass fossilized dinosaur bones and business journals, household furnishings and love letters bound with a faded ribbon. They are invaluable samples and fragments of the world through time and the multitude of life therein.

Ethnographic resources are basic expressions of human culture and form the basis for continuity of cultural systems and ongoing development of cultural resources. Cultural systems encompass tangible and intangible resources including traditional arts and native languages, religious beliefs and subsistence activities. Some of these traditions are supported by ethnographic resources: special places in the natural world, structures with historic associations, and natural materials. An ethnographic resource might be a riverbank used as a ceremonial or recreation site, a schoolhouse associated with cultural or historic education, sea grass needed to make baskets, a particular tool or method to accomplish a task, or traditional use of a road or area by a particular group of people. Management of ethnographic resources acknowledges that culturally diverse groups have their own ways of viewing the world and a right to maintain their traditions.

Current Setting

A variety of cultural resource types attributed to distinct chronological periods ranging from 10,000 years ago to the present have been identified in Millard County, and there is potential for finding additional resources. Archaeological investigations and discoveries began, at least informally, in Millard County as early as the Dominguez/Escalante expedition and have continued to the present day. In response to legislative requirements, formal inventories have more recently been conducted to support site specific surface disturbing projects and to comply with the requirements of Section 106 of the National Historic Preservation Act (NHPA) and other

cultural resource preservation laws. Additionally, academic institutions have performed some research projects, although such scientific investigations may be relatively limited.

Detailed inventories have not been conducted on all of the cultural resources in the County. Intensive cultural resource inventories meeting Utah Class III standards (i.e. 15 meter transect intervals) have only been completed on a small percentage of the lands in Millard County. Within Millard County, over two thousand (2,000) cultural resource sites are listed in the State Historic Preservation Office (SHPO) database. Cultural resource densities range from non-existent in rugged remote terrain to more than 100 sites per square mile in favorable locations. Based on Millard County's size, tens of thousands of cultural resources may exist within the County limits.

It is believed that there are numerous unknown cultural resources in the County. Many of these resources are not able to be associated with specific events or time periods. Some resources lack any diagnostic information that would enable interpretation of small and previously impacted sites. Other resources are easily visible and contain characteristics suitable for interpretation, use and enjoyment. The size/influence of cultural resources can be determined from the field measurements and GPS technology. It is believed that reliable documents have not been developed for most of the cultural resources within the County. Many cultural resources are eligible for listing in the National Register of Historic Places (NRHP) and are managed as directed by local, state, and federal regulation. SHPO records for Millard County indicates two cultural resources are listed in the NRHP; one cultural resource is nominated for listing and 1,765 resources have been evaluated as being National Register quality.

Additionally, untold ethnographic resources and activities exist in Millard County. Continuation of these uses forms the basis for traditions, custom, culture, and heritage of the County's citizens and visitors.

Need For Management Change

1. Traditional uses and activities on federal lands need to be recognized as cultural resources and must be continued and protected from restrictive land management decisions that negatively impact the custom culture and heritage of Millard County.

2. Cultural resources have monetary, social, scientific and cultural value. When the resources are destroyed or exported from the County (even for scientific purposes,) there is a net loss of cultural value. The County needs to have a "No Net Loss of Cultural Resource Value" policy.

3. Cultural resources have not been adequately identified, mapped, or surveyed in the County. To a large extent, the cultural resources are unknown and therefore cannot be adequately

managed, developed, used, enjoyed, or protected. Cultural resources need to be identified and inventoried. The lack of reliable data and specific inventories has resulted in cultural resources being used as a club to support special designation and prevent otherwise acceptable uses of the land or has left the resource unprotected.

4. Agencies lack specific direction regarding Outstandingly Remarkable/Relevant and Important values associated with cultural resources. Criteria need to be provided to federal and state land managers, so a consistent, legal management approach can be implemented.

5. Artifacts and other cultural resources have cultural, social, scientific and monetary value. Resources are being extracted and exported without the County receiving any value in return. A system needs to be established for the County's residents and visitors to receive a cultural, social, scientific and/or monetary value for resources that are exported from the County. This is in addition to any intrinsic value that may be available for cultural resources having been here for some time.

6. Rural natural resource based communities are struggling to survive. Increasing environmental legislation and prescriptive, recreation oriented management have resulted in loss of economic opportunity and business capabilities associated with traditional natural resource extraction industries. In addition to efforts to revive such industries, educational and interpretive opportunities need to be greatly expanded for residents and visitors to rural communities in Millard County.

7. Some cultural resources in the area have been described as "world class." Educational opportunities, interpretive facilities, programs, and understanding of cultural resources need to be world-class for all of the residents and visitors to Millard County. The school children, residents and visitors of the County need to have the greatest opportunities for field trips, hands-on experience, understanding, use, and enjoyment of these resources.

9. A facility needs to be constructed for the study, interpretation, use, enjoyment, display, and curation of cultural resources.

10. The Millard County Commission needs to be recognized as the duly elected, authoritative voice regarding custom, culture and heritage in the County and land use decisions must be consistent with the County's RMP and receive Commission concurrence.

Desired Conditions

Millard County desires:
a) Consistent criteria for Outstandingly Remarkable/Relevant-Important values as they relate to

cultural resources be developed. There are thousands of cultural resources within the County. Some are of greater value, and some are of lesser value. Those of lesser value need to be treated in accordance with law and in a manner that permits the multiple-use/sustained yield of lands located in the County. Those that are determined to be Outstandingly Remarkable/Relevant-Important need to be developed to provide for interpretive opportunities, use and the enjoyment of current and future generations. Special designations should only occur in those situations where the cultural resource is of such quality and value that it meets or exceeds the Outstandingly Remarkable/Relevant-Important minimum criteria.

b) All cultural resources within the County be identified and evaluated as part of a level I, and Level II Inventory. Until cultural resources are adequately identified, mapped, and inventoried, they cannot be adequately protected and are considered speculative. All federal and state agencies need to conduct Level I, and Level II inventories on their lands to identify any cultural resources located in Millard County.

c) Necessary compliance work for projects be conducted in a timely and expeditious manner and in such a way that science is expanded, interpretive opportunities are developed and projects are allowed to move forward in an economically viable manner.

d) Existing cultural resources be retained. In situations where it is impossible to retain a cultural resource, an equal/adequate social, cultural, and/or economic compensation needs to be provided to the County. Such compensation may be in the form of educational opportunities, interpretive development, increased facilities, cultural programs, and/or monetary contributions.

e) A facility be constructed for the study, interpretation, use, enjoyment, display, and curation of cultural materials and resources. Residents and visitors to the County need to have a facility where they can view, interpret, and enjoy many of the artifacts and resources that are located here. Ideally, the facility needs to provide research opportunities, so experts from around the world can share their expertise with others. A regional facility shared with adjacent counties should be considered

f) Any new cultural resource discoveries are made and are used to solve the riddles of the past. New and expanded interpretive opportunities need to be developed for cultural resources, including opportunities for world-class experiences throughout the County.

g) Economic opportunities associated with identification, excavation, research, and interpretation of cultural resources be provided throughout the County. Study of cultural resources is no less an extraction industry than mining or timber harvesting. Those industries provided jobs and supported families within the County. Natural resource extraction industries were eliminated, largely through federal regulation. Extraction of cultural resources and associated research help

replace traditional industries and provide equal or greater economic opportunities and support for local families.

h) Cultural resources are not used to prevent multiple-use/sustained yield of public lands or to create special area designations to promote single use recreation. Cultural resources need to be used for the understanding, benefit, use, and enjoyment of the public and not be use as a pry bar to force the political will of others on the residents and visitors to Millard County.

i) The items listed above be given funding and manpower by Federal and State agencies for the accomplishment of the work outlined in this chapter.

j) Federal agencies recognize the Millard County Commission as the duly elected, authoritative voice regarding custom, culture and heritage in the County.

k) Land use decisions that impact County designated cultural resources be consistent with the County's RMP to the maximum extent allowed by law or receive Millard County Commission concurrence.

Findings, Policies, Goals, & Objectives

Finding: The Millard County Commission is the duly elected, authoritative voice regarding custom, culture and heritage in the County.

Policy: Land use decisions that impact County designated cultural or ethnographic resources shall be consistent with the County's RMP to the maximum extent allowed by law or receive Millard County Commission concurrence.

Finding: Millard County contains many cultural resources that have monetary and intrinsic value but are protected by federal law and cannot be bought, sold or excavated for economic purposes. Millard County needs to be compensated when these valuable resources are taken outside the County.

Policy: Millard County adopts a "No Net Loss of Resources and Opportunity Policy" as it relates to cultural resources. The County asserts these cultural resources should remain in the general area from which they came.

Policy: Millard County will issue permits for activities that impact cultural resources. These permits are in addition to permits issued by other federal or state agencies. It is considered a violation of local law to extract, remove without authorization or damage cultural resources in Millard County.

Policy: Millard County will develop an ordinance protecting cultural resources and adopting a permitting process. Approved ordinances will be added to the Appendix.

Objective: Millard County desires to keep existing cultural resources extracted in the County. If existing resources are removed from the County, compensation is required to replace the intrinsic and/or monetary loss in value.

Objective: Develop criteria for identifying and determining relevance, and outstandingly remarkable values for important cultural resources. Actions that do not comply with the criteria will be inconsistent with the County General Plan and in violation of local law.

Objective: Pursue opportunities to inventory, map and determine the relevance of cultural resources in Millard County.

Policy: Millard County recognizes only known, inventoried resources. Resources that have not been mapped and been the subject of a Level III inventory are considered speculative until adequately documented. Land management decisions that are based on speculative cultural resource information are inconsistent with the local plan and are arbitrary and capricious.

Finding: Roads, paths, ways and trails and associated camping sites, fire pits and activity areas are cultural resources and are protected by the Millard County Protection of Cultural Resource Ordinance.

Policy: Closure of roads, paths, ways and trails without coordination with and concurrence of the Millard County Commission constitutes damage to the County's cultural resources and violates Millard County's Protection of Cultural Resource Ordinance.

2.12 WILD HORSES AND BURROS

Current Setting

Large numbers of unbranded and unclaimed horses roam in Millard County on public lands administered by the United States Secretary of Interior through the Bureau of Land Management (BLM. These animals are known and referred to as wild free-roaming horses. 16 United States Code ("U.S.C.") 1331(b). Many of these animals wander from time to time onto private and State owned lands in Millard County.

Congress asserted jurisdiction over wild free-roaming horses and burros pursuant to the Wild Free-Roaming Horses and Burros Act of 1971 (Public Law 92-195 and subsequent amendments), codified at 16 United States Code Sections 1331-1340. Congress charged the BLM and the Forest Service each to manage wild horses and burros found on the public lands they each administer. While no wild, free roaming burros occur in Millard County, the wild free-roaming horses in Millard County are found on lands administered by the BLM.

Despite the BLM's management authority over wild free-roaming horses and burros in Millard County, Congress in the Wild Free-Roaming Horses and Burros Act of 1971(WFRHBA), 16 U.S.C. 1331, et. Seq. and the Federal Land Policy Management Act of 1976(FLPMA), 43 U.S.C. 1701, et. Seq., have put the BLM under the following mandates:

Findings

Under the WFRHBA, the BLM shall remove excess wild free-roaming horses and burros from public land areas where an overpopulation is determined to exist. 16 U.S.C. 1333(b)(2). The term "excess" is statutorily defined as animals which have been removed or which must be removed from an area "in order to preserve and maintain a thriving natural ecological balance and multiple-use relationship in that area". *Id*. The BLM must determine the appropriate management level (AML) of wild horses and burros in an area and use removal, destruction and other options to achieve AML. 16 U.S.C. 1333(b)(1). Thus, in the practical application of the WFRHBA, an "overpopulation" of wild horses and burros occurs in an area, for which the BLM shall remove "excess animals" from the area, whenever the count of wild horses and burros in the area reaches and threatens to exceed the area's AML. In short, anything above AML is considered "excess" and must be removed. As the population of wild free roaming horses approaches AML, the trigger point for doing an EA and NEPA documents in preparation to remove excess animals is reached when the population reaches 85% of AML.

Findings

The BLM shall remove wild free-roaming horses or burros who stray on privately owned land if the private land owner so informs the BLM in writing. 16 U.S.C. 1334;

Findings

The BLM shall "to the extent consistent with the laws governing the administration of the public lands [namely the Wild Free-Roaming Horses and Burros Act of 1971] coordinate the inventory, planning, and management activities [for wild free-roaming horses and burros] with the land use planning and management programs of [Millard County]." 43 U.S.C. 1712(c)(9); and

Findings

"Land use plans of the BLM [for wild free-roaming horses and burros] under this section shall be consistent with [Millard County's plan for the same animals] to the maximum extent [the Secretary of Interior] finds consistent with Federal Law [namely the Wild Free-Roaming Horses and Burros Act of 1971] and the purposes of this Act [meaning the Federal Land Policy and Management Act of 1976]." 43 U.S.C. 1712(c)(9).

Findings

Millard County's plan to manage wild free-roaming horses and burros is consistent in every respect with the Wild Free-Roaming Horses and Burros Act of 1971 ("WFRHBA") as amended and the Federal Land Policy Management Act of 1976 (FLPMA) as amended. Therefore, Millard County expects maximum adherence by the BLM to this, Millard County's plan for wild free-roaming horses and burros.

1. The WFRHBA requires the BLM:

   a. To designate and maintain given areas for the protection and preservation of wild horses and burros to be managed "in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands;" 16 U.S.C. 1333(a); and

   b. To keep current inventories of wild free-roaming horses and burros in the given areas to determine:

   - If overpopulations exist;
   - Whether actions should be taken to remove excess animals;
   - How to best achieve appropriate management levels (AML) whether through removal, destruction of excess animals, or other options such as sterilization or natural population controls. 16 U.S.C. 1333(b)(1)

Findings

The WFRHBA requires the BLM to "immediately remove excess animals" from a given area "so as to achieve appropriate management levels" (AML) if the BLM determines on best available information that an overpopulation exists and action is necessary to remove excess animals in the given area. 16 U.S.C. 1333(b)(2). Again AML, particularly upper AML, is the point that defines when wild horses and burros reach a stage of "excess animals" that need to be removed. Such removal of excess wild free-roaming horses shall proceed in the following order and priority:

a. Destroy old, sick or lame animals in the most humane manner possible;

b. Capture and remove for private maintenance such number of excess animals for which a demand exists for adoption under qualified, humane care;

c. Destroy additional excess animals in the most humane and cost efficient manner possible.

16 U.S.C. 1333(b)(2)(A)-(C).

The WFRHBA also requires the BLM to sell without limitation all excess animals in excess of 10 years of age and all excess animals that have been offered unsuccessfully for adoption at least 3 times, until all excess animals offered are sold or the appropriate management level has been attained. 16 U.S.C. 1333(e).

The WFRHBA does not expressly prohibit the BLM from utilizing sterilization and fertility programs for wild free-roaming horses and burros. However, the WFRHBA does not excuse the BLM from adhering to its capture/removal/destroy responsibilities under 16 U.S.C. 1333(b) and 1333(e) just because it engages in such sterilization and fertility programs.

The WFRHBA requires the BLM to remove wild free-roaming horses or burros who stray onto privately owned land if the private land owner so informs the BLM in writing. 16 U.S.C. 1334.

The WFRHBA authorizes the BLM to enter into cooperative agreements with landowners, the State of Utah and Millard County with respect to wild free-roaming horses and burros. 16 U.S.C. 1336.

The WFRHBA does not authorize the BLM to relocate wild free-roaming horses and burros to areas of the public lands where they do not presently exist. 16 U.S.C. 1339. No wild free roaming burros occurred in Millard County at the passage of the WFRHBA, nor do they occur at the present time.

REGULATORY REQUIREMENTS

The BLM's management of wild free-roaming horses and burros and the establishment of herd management areas ("HMAs") are done in accordance with approved BLM land use plans. 43 CFR 4710.1. When HMAs are established, the BLM must inventory and monitor herd and habitat characteristics, 43 CFR 4710.2, consider the AML of the herd, and prepare a herd management area plan for each HMA. 43 CFR 4710.3-1. The BLM is required by rule to limit the animals' distribution to the HMAs. 43 CFR 4710.4.

BLM by rule allows for closing or limiting certain public lands areas to all or a particular kind of domestic livestock grazing *if necessary* to (1) provide habitat for wild free-roaming horses and burros, (2) to implement herd management actions, or (3) protect the animals from disease, harassment or injury. 43 CFR 4710.5. Moreover this provision must be applied consistent with the additional BLM rule that management for wild horse and burro values "shall be at the minimum level necessary to attain the objectives identified in approved land use plans and herd management area plans." 43 CFR 4710.4.

HMAs, THEIR AMLs, AND THEIR MANAGEMENT, GATHER AND REMOVAL PLANS

There are currently five BLM horse management areas (HMAs) situated wholly or partially in Millard County. Their locations and boundaries are illustrated in Map 2.12. The names of these HMAs (in alphabetical order) and the current BLM determined AML for each area are as follows:

- Confusion HMA — AML 70-115
- Conger HMA — AML 40-80
- King Top HMA — AML 20-40
- Sulphur HMA — AML 165-250
- Swasey HMA — AML 60-100

The Sulphur HMA is currently supposed to be managed according to the 1987 Sulphur Wild Horse Herd Management Area Plan and the 2010 Wild Horse Gather Plan For The Sulphur Herd Management Area Capture, Treat, and Release Plan, DOI-BLM-UT-C010-2010-0048-EA.

The Bible Spring and Four Mile HMAs are currently supposed to be managed according to the 2005 Bible Springs, Blawn Wash, Four Mile, and Tilly Creek Wild Horse Appropriate Management Level Assessment and the 2014 Bible Spring Complex Wild Horse Gather and Removal and Fertility Treatment Plan, DOI-BLM-UT-C010-2014-0035-EA.

The Chokecherry HMA is currently supposed to be managed according to the 2010 Eagle, Chokecherry, and Mt. Elinor Herd Management Areas Wild Horse Gather Plan, DOI-BLM-NV-L020-2010-0045-EA as tiered into the 1993 Pinyon MFP and 2008 BLM Ely District ROD and Approved RMP.

The Frisco HMA is currently supposed to be managed according to the 2012 Frisco Herd Management Area Plan and Gather Plan, DOI-BLM-UT-C010-2012-0018-EA.

The Blawn Wash HMA has been removed from wild horse management activity. Currently, the State of Utah School and Institutional Trust Lands Administration (SITLA) holds 25,970 acres of land in the HMA, comprising 43% of the area, but also producing 70% of the available forage. Wild horses managed by the BLM could not be excluded from the SITLA lands without fencing across very treacherous terrain. This option was determined to be too expensive and unworkable. Therefore, The Blawn Wash HMA will be managed for 0 AML.

BLM'S FAILURE TO FOLLOW APPLICABLE STATUTES, RULES AND HMA MANAGEMENT, GATHER AND REMOVAL PLANS

The BLM has not adhered to its legal duty to keep wild horses within AMLs. For purposes of the WFRHBA, "overpopulations" of "excess animals" chronically exist and persist far in excess of AML in all five active HMAs (more than double in some areas) and "action is necessary to remove excess animals in" those HMAs.

For purposes of the WFRHBA the BLM has not adhered to its legal duty to remove excess wild free-roaming horses from HMAs in Millard County by first destroying old, sick or lame animals in the most humane manner possible; next capturing and selling without limitation all excess animals in excess of 10 years old; next capturing and removing for private maintenance such number of excess animals for which a demand exists for adoption under qualified, humane care; next by selling without limitation all excess animals that have been offered unsuccessfully for adoption at least 3 times; and next by destroying additional excess animals in the most humane and cost efficient manner possible. By not adhering to their removal mandate by the WFRHBA, BLM continues to cause conflicts with private landowners by allowing excess wild horses to wander onto private lands.

For purposes of the WFRHBA and applicable BLM rules, the BLM has purported to reduce various local livestock operators' permitted grazing forage, expressed as animal use months (AUMs), in order to accommodate the exploding wild free-roaming horse populations. Such BLM grazing reductions are not necessary to implement any herd management plan or provide more wild free-roaming horse habitat. Rather, they were ordered because the BLM arbitrarily plans to *continue to fail to follow* its own herd management plans thereby destroying existing habitat.

For purposes of the WFRHBA the BLM has failed to manage wild free-roaming horses in the five active HMAs in Millard County so as to achieve a thriving natural ecological balance and multiple-use relationship in those areas.;

For purposes of the WHRHBA and applicable BLM rules, the BLM has failed to act in a reasonably prompt manner to remove wild free-roaming horses from private lands upon notice from the land owners and from State lands managed by SITLA and DNR. The BLM has also neglected to keep wild free-roaming horses off of federally managed lands outside the HMAs.

The failings cited in the preceding paragraphs are due to the following:

a. The BLM does not utilize euthanasia as legally required except for injured animals;

b. The BLM does not put aged and unadoptable animals up for sale or euthanasia as legally required, but holds and feeds them in contracted pasture or other holding facilities for the remainder of their lives at great taxpayer expense;

c. The BLM does not realistically deal with the fact that the demand for adopting wild horses and adoption rates are low and continue to decline due to high feed costs, onerous adoption rules and selective demand for young workable horses or horses of the old Spanish barbed lineage.

d. The BLM does not realistically deal with the fact that the unwanted, unadoptable horses it keeps are estimated to exceed 50 thousand in number, costing the BLM over $40 million annually to care for and feed;

e. The BLM arbitrarily adopts the attitude of reducing established grazing levels first, rather than remove excess wild free-roaming horses, in order to preserve ecological balance;

f. The BLM does not set realistic and reasonable funding priorities to provide for legally required wild horse gathers except for "emergency situations;"

g. Even when funding for gathers is available, because pasture and holding facilities are full to capacity and overflowing with un-adopted/unsold/undestroyed animals illegally held in perpetuity, the BLM perpetually delays and altogether cancels wild horse gathers in the face of critical overpopulations far in excess of AML; and

h. The BLM at the Washington level deprives BLM state and local personnel of authority to timely make wild horse management decisions on when to gather, where to take captured horses, and how to dispose of unadoptable horses.

Policies, Goals, Objectives, and Criteria

Millard County's objectives with respect to wild free-roaming horses and burros are as follows:

1. Eliminate the Blawn Wash HA and keep the five HMAs in Millard County (Bible Spring, Chokecherry, Four Mile, Frisco and Sulphur) as is, with no changes to the existing acreage or boundaries.
2. In all HMAs in Millard County, keep wild free-roaming horses at or below established AMLs;
3. In all HMAs in Millard County, achieve a thriving natural ecological balance and multiple-use relationship;

4. Keep wild free-roaming horses off of all public lands outside of the HMAs in Millard County;

5. Keep all unwanted wild free-roaming horses off private and State lands in Millard County;

6. In all HMAs and in all other public lands in Millard County, completely reverse any and all wild horse related reductions of active grazing AUMs that BLM ever required.

7. In all HMAs in Millard County and on other public lands impacted by wild horses, implement management plans to maintain existing vegetation treatment areas and identify areas for additional vegetation treatments that will increase usable forage for livestock, wildlife and wild horses.

8. Oppose and prevent the transfer of wild free-roaming horses and burros from being transferred and introduced into Millard County from outside the County and from outside any established HMA in the County.

9. Have zero tolerance for any wild free-roaming burros to exist within Millard County.

10. Work with Utah Congressional delegates to remove language from the Interior Appropriations bills that prohibit use of funds to deal effectively with excess animals.

Policies

Millard County's planned policies and guidelines for accomplishing the foregoing objectives are as follows:

1. Initial Large Gather Outside of HMAs. Following needed NEPA review if any, the BLM during the first field season after implementation of this plan should conduct a county wide gather to remove all wild free-roaming horses found on public lands in Millard County outside of the HMAs. Animals captured during this gather generally should not be returned to HMAs but rather should be processed for either adoption, sale or destruction according to the requirements of the WFRHBA and applicable BLM rules, stated above. Small exceptions to this general provision could be allowed to introduce new animals into different HMAs for reasons of maintaining genetic diversity, but only if the wild horse population of the HMA is below 85% of AML.

2. Subsequent Biennial Gathers Outside of HMAs. Following needed NEPA if any, the BLM during subsequent alternating field seasons (or more frequently if livestock grazers or other stakeholders determine the need arises) should conduct county wide gathers to remove all wild free-roaming horses found on public lands in Millard County outside of the HMAs. Animals captured during such gathers generally should not be returned to

HMAs but rather should be processed for either adoption, sale or destruction according to the requirements of the WFRHBA and applicable BLM rules, stated above. Small exceptions to this general provision could be allowed to introduce new animals into different HMAs for reasons of maintaining genetic diversity of an HMA herd, if wild horse populations are below 85% of AML.

3. Initial Gather In HMAs. Following any needed NEPA, and upon completing an updated inventory count of wild free-roaming horses in each HMA in Millard County, the BLM during the initial field season following implementation of this plan should conduct gathers in all HMAs where the number of animals is found to equal or exceed the upper AML, removing enough animals to bring the herd number down to lower AML. Animals captured during such gathers should be processed either for adoption, sale or destruction according to the requirements of the WFRHBA and applicable BLM rules, stated above.

4. Subsequent Annual Gathers In HMAs. Following any needed NEPA, and upon completing an updated inventory count of the wild free-roaming horses in each HMA in Millard County, the BLM annually during each subsequent field season should conduct gathers in all HMAs where the number of animals is found to equal or exceed the upper AML, removing enough animals to bring the herd number down to lower AML. Animals captured during such gathers should be processed either for adoption, sale or destruction according to the requirements of the WFRHBA and applicable BLM rules, stated above.

5. Gathers on Private Lands. BLM should conduct private land gathers of wild free-roaming horses promptly upon proper notice from the landowner. The landowner notice to the BLM should be in writing and should include: location of gather (legal description), number of animals proposed to be gathered, brief description of animals (color), and a statement indicating desire for the BLM to remove the animals. Animals captured during such gathers should be processed either for adoption, sale or destruction according to the requirements of the WFRHBA and applicable BLM rules, stated above.

6. Interim Small Maintenance Gathers at Water Sites and Other Determined Baiting Areas. Small periodic maintenance gathers of 5 to 30 wild horses may be possible around water sources and other appropriate baiting areas, without the use of helicopters and large round-up crews, and thus better help to maintain horse numbers below upper AML. Animals captured during such gathers should be processed either for adoption, sale or destruction according to the requirements of the WFRHBA and applicable BLM rules, stated above. Additional details for such small gathers are as follows:

a. In HMAs and on other public lands outside HMAs: Small periodic maintenance gathers at water sites and other determined baiting areas utilizing catch pens may be appropriate. The use of catch pens may be monitored by livestock operators and BLM officials to determine optimum times to close the pens according to the animals' becoming accustomed to the pens and when they are utilizing water. All capture enclosures would meet BLM Design Features standards and Standard Operating Procedures (SOPs) contained in the current EA.

b. On private lands: Same as the preceding paragraph with the following modifications: The BLM and/or the County should supply and erect the pen panels (County could utilize possible assistance of volunteers such as Dedicated Hunters). The landowner should monitor the wild horses' use of the pens and notify the BLM when to catch. The BLM should oversee loading, transport and unloading of the animals. The BLM should supply the feed and the County could, in certain circumstances, supply the personnel to feed the animals.

7. Decisions to conduct any of the wild horse gathers referenced in the preceding paragraphs should not depend on the vacancy rate at pastures and other holding facilities with which the BLM contracts to keep captured and removed animals. Rather, such decisions should depend solely on whether the number of animals in an HMA has reached the upper AML number, and for private land gathers whether the land owner has given the BLM appropriate notice. Because of time constraints involved in doing public scoping, EA's and NEPA studies, the hard trigger for beginning the process to do a gather should begin when the population of a HMA reaches 85% of AML.

8. For all BLM grazing allotments in Millard County, whether in HMAs or outside of HMAs, the BLM should systematically review for all instances where it has ever ordered or required reductions of active livestock grazing AUMs due to overpopulations of wild free-roaming horses, perceived or real, present or anticipated. BLM should then reverse all such reductions and restore any such reduced AUMs to active use. Future reductions in AUM's within any HMA should not be mandated if wild horse populations are over the upper AML limit. Wild horse numbers must be reduced to established AML levels prior to any AUM reduction.

9. Following appropriate inventory of HMA range conditions and any NEPA review if needed, BLM should carry out projects in all HMAs in Millard County and on other public lands impacted by wild horse overpopulations to implement vegetation treatments

and to reclaim damaged ranges through restoration projects. Additionally, the BLM should develop and carry out plans for periodic maintenance of vegetation treatment areas.

10. The BLM should reform its policies and guidelines as follows:

a. Put aged and unadoptable animals up for sale or euthanasia as legally required, not hold and feed them in contracted pasture or other holding facilities for the rest of their lives at great taxpayer expense;

b. Accept and internalize the fact that the demand for adopting wild horses and the adoption rate are low and declining further due to high feed costs, onerous adoption rules and selective demand for young workable horses or horses of the old Spanish barbed lineage;

c. Follow sound fiscal practices to avoid the inhumane holding of over 50 thousand wild horses, costing the over $40 million annually to care for and feed;

d. Eliminate the attitude of reducing established grazing levels first, and rather remove excess wild free-roaming horses in order to preserve natural thriving ecological balance and multiple-use relationships;

f. Set realistic and reasonable funding priorities to provide for the legally required wild horse gathers outlined in the paragraphs above;

g. No longer put off wild horse gather decisions based on vacancy of perennial holding facilities and pastures. Rather, base gather decisions on when actual wild free-roaming horse numbers reach upper AML for each HMA, and when they are found outside of HMAs. Begin the preparation process when the hard trigger point (85% of AML) is reached in advance of rising populations; and

h. Give back to state and local BLM officials the authority and leeway to make timely wild horse management decisions on when to gather, where to take

captured horses, and how to dispose of unadoptable horses, rather than keep that authority bottled up at the Washington level.

i. Report to the BLM and demand the immediate gather and removal from Millard County of any wild free-roaming burro found in the county.

11. An important component to maintaining a healthy and thriving ecological balance is to provide adequate forage for livestock, wildlife and wild horses. Many of the grazing allotments within the HMA's have existing vegetation treatment areas where the encroaching pinion/juniper was removed and the area seeded to provide forage for grazing. Most of these areas have been neglected and are now overgrown with returning brush and pinion/juniper stands. Vegetation treatment areas need to be maintained and periodically re-treated.

FERTILITY CONTROL

12. Fertility control is an option in all HMAs in Millard County as analyzed in the related environmental assessments by the BLM. The primary purpose of using Porcine Zona Pellucidae (PZP) is to reduce the annual population growth. The primary use of fertility control is to maintain the population within AML once achieved. It could be used previous to achieving AML if gather success, holding capacity limitations, population growth rates, other national gather priorities or other circumstances prevent achieving AML during a gather. Use of PZP would be in accordance with BLM Washington IM 2009-090, or the current guidance and best practices directed by the BLM's National Program Office. The use of PZP or other fertility control is not to be used in a manner that would threaten the health of individual animals or the long-term viability of any herd. A trained applicator would be selected to administer the vaccine during scheduled gathers.

WILD HORSE SURVEYS

13. Millard County shall rely on the Utah Division of Wildlife Resources to conduct wild horse counts to determine if populations are within AML. In circumstances where an excess of wild horses is believed to exist, and the tentative schedule for the UDWR is not timely or sufficient, a disinterested, third party contractor may be used to do aerial surveys of the affected HMA.

CHAPTER 3
RESOURCE USES

3.1 FOREST MANAGEMENT AND WOODLAND PRODUCTS

(Reserved)

3.2 LIVESTOCK GRAZING

Introduction

In managing livestock grazing on public and private lands, Millard County's overall objective is to promote public health, safety and welfare by ensuring the long-term health and productivity of a) public and private lands, b) the County's watersheds, c) the livestock industry, d) multiple social and environmental benefits that result from the custom, culture and heritage associated with the livestock industry, and e) cultural resources, ethnographic resources, and traditional uses associated with the livestock industry. Grazing is administered on public lands in accordance with the Taylor Grazing Act of 1934, and in so doing provides livestock-based economic opportunities in rural communities while contributing to Millard County's, the West's and America's social fabric and identity. Together, the County's public lands and private ranches maintain open spaces, provide habitat for wildlife, offer a myriad of recreational opportunities for public land users, and help preserve the custom, culture, heritage and character of the rural West. Livestock Grazing in Millard County is considered a resource of cultural and historic significance. Livestock Grazing is protected by Millard County's Protection of Cultural Resources Ordinance and is on the County Register of Cultural Resources. In some instances Livestock Grazing may also be suitable for protection as an Area of Critical Environmental Concern (ACEC).

A Brief History of Public Lands Grazing

The Spanish brought livestock into the American southwest in the 1500's, and in 1776 the Dominguez – Escalante expedition, including several horses crossed the county traveling along the Sevier River and camping on the shores of Clear Lake near Pahvant Butte. However the first permanent domestic livestock operations were not introduced to the area until Mormon pioneers settled in Millard County in 1851. The settler's economy was based primarily on agriculture, and they brought small numbers of livestock to the area. The valleys were thought to provide good grazing, and livestock remains an important component of the local agricultural economy today.

During the era of homesteading, federal lands were often grazed because of national policies designed to promote the settlement of the West and the desire to provide food and fiber for the nation. Grazing was largely unregulated and some problems occurred, but a significant understanding was gained regarding livestock grazing in arid ecosystems. In response to requests from Western ranchers, Congress passed the Taylor Grazing Act of 1934, which led to the creation of grazing districts in which grazing use was apportioned and regulated. The Division of Grazing was created within the Interior Department to administer the grazing districts; this division later became the U.S. Grazing Service and was headquartered in Salt Lake City. In 1946 the Grazing Service was merged with the General Land Office to become the Bureau of Land Management.

Unregulated grazing that took place before enactment of the Taylor Grazing Act resulted in unintended damage to soil, plants, streams, and springs. As a result, the Taylor Grazing Act instituted grazing management initially designed to increase productivity and reduce soil erosion by controlling grazing through fencing and water projects and by conducting forage surveys to balance forage demands with the land's productivity/carrying capacity. These initial improvements in livestock management arrested the degradation of public rangelands while improving watersheds, and were successful in restoring acceptable conditions.

But by the 1960s and 1970s, regulation of public lands and unrealistic expectations for their management through restrictive federal policies rose to a new level, as made clear by congressional passage of such laws as the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, the National Forest Management Act of 1976, and the Federal Land Policy and Management Act of 1976. Consequently, federal agencies moved away from managing natural resources, vegetation and grazing and toward lengthy studies, litigation and altered fire regimes that have resulted in proliferation of invasive species, loss of wildlife and a morass of bureaucratic delay. In general, regulations were intended to provide better management or protection of specific rangeland resources, such as riparian areas, threatened and endangered species, sensitive plant species, and cultural or historical objects. However, a backlog of litigation, environmental studies and regulation has hampered land management activities aimed at productive and healthy ecosystems. Consistent with this enhanced regulatory role, federal agencies developed or modified the terms and conditions of grazing permits and leases and implemented new policies which have delayed range improvement projects which address specific resource issues and which have prevented continued improvement of public rangeland conditions.

Current setting:

Today federal agencies and permittees manage livestock grazing in a manner aimed at achieving and maintaining health of the land and sustaining resources. To achieve desired conditions, the agencies use forest and rangeland health standards and guidelines, which were generally

developed in the 1990s with input from citizen-based Resource Advisory Councils across the West. Standards describe specific conditions needed for long term sustainability, such as the presence of stream bank vegetation and adequate canopy and ground cover. Guidelines are the management techniques designed to achieve or maintain healthy public lands, as defined by the standards. These techniques include such methods as seed dissemination, periodic rest or deferment from grazing in specific allotments during critical growth periods, water development, vegetation treatments, and land treatments aimed at making the land more productive.

Currently, grazing on public lands is relatively stable. Except for a few isolated locations, problems from the early 1900s have been largely corrected as designed by the Taylor Grazing Act. Forest and rangeland health has improved over the past few decades, and there is continual effort on the part of federal agencies and permittees to maintain healthy conditions.

Livestock grazing on federal lands has been declared an activity of historic and cultural significance in Millard County and has been placed on the County's register of cultural resources. In addition, the State of Utah has passed legislation recognizing the value of the livestock industry and outlining basic concepts to preserve its vigor. The American cowboy has been recognized by the Congress and the President of the United States for his role in settling the West. Livestock grazing may be the last human endeavor of the American West that continues to pit man against nature and is shaped by the environment. Livestock grazing continues to play a vital role in the health, welfare, safety, custom, culture and heritage of Millard County.

In spite of ongoing improvements in livestock management and federal, state and local recognition of its importance, inflexible federal regulations, altered fire regimes, encroachment of undesirable vegetation (cheatgrass, pinyon/juniper, rabbitbrush, etc.), and private efforts to eliminate public land grazing put the industry at significant risk.

Grazing, one of the earliest and longest uses of Millard County's public lands, continues to be an important activity for those same lands today. Livestock grazing now competes with more uses than it did in the past, as other industries and the general public look to the public lands as sources of both conventional and renewable energy and as places for outdoor recreation, including primitive and motorized use. Among the key issues that face land managers today are drought, severe wildfires, invasive plants, loss of historic plant communities, and dramatic increases in recreation.

Modern, well-managed grazing provides numerous environmental benefits. For example, well-managed grazing can be used to control undesirable vegetation. And intensively managed "targeted" grazing can control some invasive plant species or reduce the fuels that contribute to severe wildfires. Besides providing such traditional products as meat and fiber, well-managed rangelands support healthy watersheds, carbon sequestration, recreational opportunities, and wildlife habitat. Livestock grazing on public lands helps maintain the private ranches that, in

turn, preserve the open spaces that have helped write Millard County's history and will continue to shape this region's character in the years to come.

Need for Management Change:

Various conditions exist that create a need for changes in management related to grazing including but not limited to:

1. Designation of grazing as an object of historic and cultural significance to Millard County and placement of livestock grazing on a Millard County Register of Cultural Resources;

2. Potential creation of the grazing commodity zones by Millard County and by the State of Utah;

3. Recognition of the ongoing threat to the health, safety, welfare, custom, culture, heritage and values of Millard County resulting from reductions in grazing or harm to the livestock industry;

4. Neglect of natural resources (failure to maintain water developments and desirable vegetation; uncontrolled expansion of cheatgrass, pinyon/juniper, rabbitbrush, and noxious weeds, etc.) resulting from failure to aggressively manage the land for optimum forest/rangeland health and forage potential.

5. Failure to allow for maintenance and enhancement of grazing related infrastructure including but not limited to roads, corrals, seedings, water developments, vegetative resources, desirable ecologic site conditions, etc.

6. Creation of bureaucratic management systems and subsequent management actions that diminish land health and forage production.

7. Failure of federal agencies to create, update and modify land management plans to optimize multiple-use/sustained yield principles and to comply with coordination and consistency requirements mandated by law.

8. Ongoing threats by private groups to eliminate livestock grazing on public lands.

9. Lack of flexibility in managing livestock related resources and permitted activities.

10. Threats to livestock and wildlife resulting from loss of desirable ecologic site conditions and failure to control invasive confers, cheatgrass, rabbitbrush, noxious weeds, and other undesirable vegetation.

11. Increased recreationist created conflicts, especially in areas that are not the focal point of visitation and where water is appropriated for stockwatering.

12. Ongoing threats to forest and rangeland health by limiting vegetation to only native species.

Desired Conditions:

Millard County Desires:

a) Land management agencies recognize state and local designation of the significant historic role of livestock grazing and its value as a cultural resource

b) Land managers recognize Millard County's Register of Cultural Resources and the County's Resource Management Plan and comply, to the maximum extent allowed by law, with Millard County's stated goals, plans, desires, and needs.

c) Federal agencies manage lands to maximize sustained yield, including optimization of available forage for livestock grazing.

d) Federal agencies restore forests and rangelands to a condition that supports the full number of permitted livestock and increases forage available for livestock grazing over time.

e) Prior to FY 2050 federal agencies enhance forests and rangelands to a condition that supports an additional 30% of forage over what is necessary to accommodate the full number of livestock and wildlife permitted at present.

f) Federal agencies restore pinyon/juniper stands to desired conditions, eliminate undesirable riparian vegetation, eradicate noxious weeds, and replace rabbitbrush and other unproductive species with vegetation that will optimize sustained yield and benefit to wildlife, livestock, recreation and other multiple-uses.

g) Water generated from pinyon/juniper, Tamarisk and Russian Olive removal be conserved, developed and enhanced to be used:

1) for livestock on lands that are not designated as the focal point for visitors or that have water rights allocated to livestock;

2) for recreation on lands designated as the focal point for visitors and that have water

rights allocated to culinary/domestic uses;

3) for livestock on lands designated by Millard County or the State of Utah where grazing is the highest and best use; and

4) for multiple-use/sustained yield purposes in compliance with Utah State Water Law on lands that are undesignated.

h) New water be developed:

1) for livestock and wildlife on lands that are not designated as the focal point for visitors or that have water rights allocated to livestock and wildlife;

2) for recreation on lands designated as the focal point for visitors and that have water rights allocated to culinary/domestic uses;

3) for livestock on lands designated by Millard County or the State of Utah where grazing is the highest and best use; and

4) for multiple-use/sustained yield purposes in compliance with Utah State Water Law on lands that are undesignated.

i) The full number of permitted livestock be restored and expanded at the earliest possible time in a phased approach as the conditions of paragraph (d) are achieved.

j) Desired ecological site conditions identified by the Natural Resources Conservation Service be achieved

Findings, Policies, Goals, Objectives, and Criteria

Goal: Preserve the history, culture, custom, and values of the grazing industry within the County. Maximize efficient and responsible preservation, enhancement, and development of grazing resources, practices and affected natural, historical, and cultural activities within Millard County.

Goal: On SITLA, Forest Service and BLM lands, manage livestock grazing to provide for multiple-uses while maintaining healthy ecosystems and protecting biological and cultural resources consistent with federal law.

Policy & Objective: On SITLA, Forest Service and BLM lands, manage vegetative resources to become as productive as feasible for livestock grazing, with a goal of restoring suspended and under-utilized AUMs, while maintaining a thriving, ecological balance and multiple-use relationships.

Goal: Millard County's goals regarding livestock grazing are threefold:
1) Maintain and enhance land health and productivity;
2) Actively manage land to optimize resource use including livestock grazing; and
3) Ensure a healthy, stable and economically viable livestock grazing program to preserve and enhance this important cultural and historic activity.
For information purposes, livestock grazing provides year round income of approximately $100 per AUM. (See GSENM Grazing Economic Baseline Report, circa 2015 for details)

Policy: Grazing on private and State lands in Millard County is managed under the requirements of the Millard County, Utah Zoning Ordinance, as amended. Grazing on federal lands in Millard County is managed under the requirements of Millard County's Resource Management Plan, 2020, as amended.

Finding & Policy: Livestock grazing shall continue to be implemented and managed based on Utah's Standards for Healthy Rangelands and Guidelines for Grazing. Management systems that are based on arbitrary departure standards from selected reference conditions fail to consider natural variability and the complex relationship between ecologic variables. Livestock management systems that are based on departure standards from reference conditions are deemed arbitrary, capricious, scientifically unsubstantiated, statistically unsupported, and inconsistent with Millard County's Resource Management Plan.

Policy: In strict compliance with 40 CFR 1502.22, land managers considering any grazing management alternative that includes reference areas and/or departure standards shall include in any environmental analysis all information relevant to reasonably foreseeable and/or significant impacts. If the information relevant to reasonably foreseeable and/or significant impacts cannot be obtained, the agency shall include within the environmental document:
a) a statement that such information is incomplete or unavailable;
b) a statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment;
c) a summary of existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment, and
d) the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community.
For the purposes of this policy, "reasonably foreseeable" includes impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure

conjecture, and is within the rule of reason.

Goal: Manage livestock grazing in accordance with applicable federal, state and local laws, regulations, standards and guidelines.

Goal: Manage livestock grazing, including use of adaptive management principles, to meet or make progress toward meeting Utah Forest and Rangeland Health Standards where livestock grazing is a causal factor.

Criteria: Millard County has adopted the BLM Utah Rangeland Health Standards for public lands.

Policy: Meet or make progress toward meeting BLM Utah Rangeland Health Standard 2 and Standard 4. Land managers shall comply with water quality standards established by the State of Utah and Millard County under the federal Clean Water and Safe Drinking Water Acts. Activities on federal and state lands will fully support the designated beneficial uses described in applicable water quality standards.

Finding: Livestock grazing is a cultural resource, an ethnographic resource, part of the County's heritage, and a traditional activity of significance. It is protected under Millard County's Protection of Cultural Resources Ordinance, FLPMA, NFMA, and other applicable law.

Finding: Failure to control Tamarisk, Russian Olive and pinyon/juniper, and noxious weeds beyond desired levels is a detriment to the health, safety and welfare of Millard County, is inconsistent with the County's plan, program and policy.

Finding: Tamarisk and Russian Olive are not native and constitute evidence/presence of man on the environment. Land bases that contain Tamarisk and/or Russian Olive are trammeled by man and contain permanent evidence of man's impact. Until Tamarisk and Russian Olive are eradicated a land area is not eligible for wilderness designation due to man's longstanding / permanent impact on the land.

Finding: Grazing commodity zones may be necessary for the preservation of the health, safety, welfare, custom, culture and heritage of Millard County and grazing commodity zones should be considered by the Millard County Commission.

Finding: For more than 100 years areas eligible for Grazing Commodity Zone status have provided and continue to provide a significant contribution to the history, custom, culture, heritage, economy, welfare and other values of Millard County. Properly managed, abundant natural and vegetative resources exist within the commodity zones to support and expand current livestock grazing activities and wildlife habitat.

Policy: Livestock grazing activities in Millard County constitute historic resources, ongoing human history, places where nature shapes human endeavors in the American West, a variety of cultural resources, landmarks, structures, and other objects of historic or scientific interest that are worthy of recognition, preservation, protection, and expansion.

Finding: The highest management priority for lands not impacted by other multiple-use / sustained yield activities is a preservation, restoration, and enhancement of watershed, forest and rangeland health conditions to sustain and expand forage production for livestock grazing and wildlife habitat. Other multiple-uses (mining, timber harvest, oil & gas extraction, recreation, commodity development, etc.) are compatible with rangeland health when properly managed.

Finding: Managing Millard County lands for livestock grazing and wildlife habitat does not preclude or restrict other multiple-use / sustained yield activities including but not limited to mining, timber harvest, oil & gas extraction, and recreation.

Finding: There are numerous National Parks, State Parks and other sites in and near Millard County that provide outstanding opportunities for recreation where livestock grazing is not allowed.

Policy: Within land available for livestock grazing, minimal, site specific recreation infrastructure may be installed on a case by case basis to enhance resources significantly impacted by livestock and wildlife grazing. However, livestock grazing shall not be diminished to reduce conflicts created by recreationists that choose to visit lands available for grazing when and where livestock grazing is allowed.

Finding: Vegetative treatments that restore lands to desired ecological site condition and existing seedings are substantially unnoticeable in lands designated for recreation in Millard County.

Finding: The existence of pinyon/juniper woodlands inconsistent with desired and/or historical sagebrush and grassland ecological site descriptions or the existence of Tamarisk, Russian Olive, noxious weeds, or cheatgrass are evidence of man's presence and constitute a trammeling by man.

Finding & Policy: Tamarisk and Russian Olive are species introduced by man and are not attributable to livestock grazing. Where lands fail to meet rangeland health as a result of Tamarisk and / or Russian Olive, the deficiency shall not be attributed to livestock.

Policy: The existence of pinyon/juniper woodlands inconsistent with desired and/or historical

sagebrush and grassland ecological site descriptions or the existence of Tamarisk, Russian Olive, noxious weeds, or cheatgrass are not natural conditions, and land occupied by such species are impaired by man until such time as a natural condition where the land retains its primeval character and influence is restored.

Policy: Lands occupied by Pinyon/juniper woodlands inconsistent with desired and/or historical sagebrush and grassland ecological site descriptions or by Tamarisk, Russian Olive, noxious weeds, or cheatgrass are not suitable for management as Wilderness, Recreation Ia or Recreation Ib until a primeval character and influence is restored and such management is approved by the Millard County Commission.

Finding: The historic levels of livestock grazing activity and other values in Millard County have greatly diminished, or are under other serious threat, due to:
(a) unreasonable, arbitrary, and unlawfully restrictive federal management policies, including: de facto management for primitive recreation in non-wilderness areas and non-WSAs;
(b) abandonment of Taylor Grazing Act designations applicable to each of these zones;
(c) arbitrary administrative reductions in animal unit months and available forage;
(d) inflexible federal grazing practices that disallow grazing at different times each year;
(e) encroachment of pinyon, juniper, cheatgrass, invasive species, and woody vegetation that compromise watershed and rangeland health, reduce desirable forage, degrade habitat, limit wildlife populations, reduce water yield, and heighten the risk of catastrophic wildfire; and
f) more than 100 years of fire suppression that has promoted invasion of forb/grassland habitats with undesirable species including but not limited to decadent sagebrush, pinyon, juniper, rabbitbrush, cheatgrass, etc.

Policy: Lands designated by Millard County as Range and Forest which include Multiple-use Sustained Yield and Commercial Product Development in various areas of the County are targeted areas for livestock grazing improvement projects including but not limited to seedings, seeding maintenance, conifer removal, invasive and/or noxious weed removal, water development, and re-vegetation projects.

Policy: Lands designated by Millard County for recreation shall be available for Livestock Grazing to the maximum extent allowed by law.

Policy: Lands designated by Millard County for recreation shall be available for Livestock Grazing; and Livestock Grazing related resources shall be improved to the maximum extent allowed by law.

Finding: Restrictive federal regulation has resulted in the loss of a natural/pre-settlement fire regime, the invasive encroachment of conifers in former semi-desert/sagebrush ecosystems, the

proliferation of undesirable species (including but not limited to Tamarisk, Russian Olive, cheatgrass), and a reduction in available forage for livestock and wildlife grazing.

Policy: Federal land managers shall refrain from implementing policies and programs that reduce livestock levels on lands in Millard County that are available for livestock grazing. Prior to any reduction in AUMs on lands available for livestock grazing in Millard County, federal land managers shall coordinate with Millard County and shall implement all reasonable actions to provide necessary forage to accommodate permitted levels of livestock grazing.

Policy: Federal land managers shall refrain from implementing utilization standards less than 50%, unless:
a) implementing a standard of less than 50% utilization on a temporary basis is necessary to resolve site-specific concerns; and
b) the federal agency consults, coordinates, and cooperates fully with Millard County and affected local governments.

Policy: For the purposes of livestock grazing related analysis the following shall apply:

1. Immediate impact is defined as impact which lasts less than one year. Immediate impacts do not need to be mitigated, if desired conditions are achieved within the one year period.
2. Short term impact is defined as impact which lasts longer than one year but less than five years. Short term impacts do not need to be mitigated, if desired conditions are achieved within the five year period.
3. Long term ground impact is defined as impact which lasts more than five years but less than twenty years. Long term impacts do not need to be mitigated, if desired conditions are phased and achieved within a five year period of phased disturbance.
4. Permanent ground disturbance is defined as any ground disturbing activity which lasts longer than twenty years. Permanent disturbances need to be mitigated or offset by other enhancements initiated within five years.

Finding: Federal land managers have:
a) failed to accurately map general habitat and critical habitat for special status species,
b) incorrectly designated special status species habitat where the species is not present, and
c) ignored site specific conditions and special status species life cycle requirements to adopt generalized habitat polygons that are not consistent with objective science.

Finding: Millard County finds that sage-obligate populations and habitats are compatible with livestock and grazing management which conforms to Millard County's Resource Management Plan. Practices, such as rotational grazing systems can enhance plant community vigor, suppress

noxious weeds, and sustain diverse plant communities with forb components that benefit sage-obligate habitat.

Finding & Policy: Livestock grazing decisions that are not consistent/compliant with this RMP need to be revisited by the managing agency within 5 years or at the next amendment/revision process whichever occurs first.

Goal: Create sustainable rangelands and forests that are resilient and resistant to fire with diverse vegetation and wildlife and which supports optimal levels of livestock grazing.

Policy: All allotments are open and available for livestock use to the maximum extent allowed by law and consistent with land health. Where allotments are unavailable for livestock grazing or otherwise restricted, management shall be consistent with Millard County's resource plan or approved by the Millard County Commission.

Policy: Millard County requires forage enhancement on all allotments which are suitable for livestock grazing to the maximum extent practical.

Policy: In areas available for livestock grazing, livestock water shall be available at distances of not more than 3 miles. Where livestock water is not available within the 3 mile distance, land managers shall, to the maximum extent practical, take appropriate action to develop additional water resources to meet the 3 mile requirement.

Policy: Land managers shall maintain rangelands in stable or improving conditions by increasing forage and water resources. Active and aggressive management shall be implemented to comply with this policy.

Policy: Class I pinyon/juniper stands impacting land health, species diversity or desired vegetative conditions should be eradicated in the most feasible and cost effective manner possible at a rate of 1.0% annually. Class II & III pinyon/juniper stands must be reduced to less than 1,000 acres of contiguous trees in a mosaic pattern and 2% must be treated annually based on a rolling 5 year average. Alternatively, land managers may implement vegetative treatments that convert 2.5% of Class II & III pinyon/juniper woodlands to desirable vegetative communities based on a rolling 10 year average.

Policy: Decadent sagebrush stands of over 1,000 acres must have 1.0% treated annually.

Policy: Land managers shall increase diversity in vegetation through optimization of native and non-native species to the maximum extent available by law. Limiting vegetative communities to "native species only" shall only be implemented when:
a) required by federal or state law,

b) scientifically proven to optimize land health and/or desirable forage production,
c) consistent with Millard County's Resource Management Plan, and
d) approved by the County Commission.

Policy: Wildlife populations in excess of population objectives must be corrected within one year. If livestock grazing is being restricted due to lack of forage or drought, restrictions shall occur as follows: First, wildlife that is over objective; Second proportional decreases in wildlife meeting objectives and permitted livestock.

Policy: Adaptive management must be implemented. The conditions of forage may vary each year which may lead to changes in a specific grazing plan. Livestock numbers, on/off dates, days available for grazing should be managed based on conditions rather than a calendar.

Policy: Prior to closure or reductions of livestock AUMs on allotments in Millard County, NEPA analysis shall be conducted, and Millard County shall be offered cooperating agency status.

Finding & Policy: Grazing agricultural commodity zones as established in U.C.A. 63J-8-105.8(2) preserve and protect the agricultural livestock industry from ongoing threats; preserve and protect the history, culture, custom, and economic value of the agricultural livestock industry from ongoing threats; and maximize efficient and responsible restoration, reclamation, preservation, enhancement, and development of forage and water resources for grazing, wildlife practices and affected natural, historical, and cultural activities. Grazing agricultural commodity zones will be implemented on a case by case basis as needed.

Goal: Achieve and maintain livestock grazing in Millard County at the highest reasonably sustainable level.

Policy: Domestic livestock forage in Millard County, expressed in animal unit months, for permitted, active use, as well as wildlife forage included in that amount, shall be no less than the maximum number of animal unit months sustainable by range conditions in grazing districts and allotments in the County, based on an on-the-ground and scientific analysis.

Policy: Where once-available grazing forage in Non-WSA lands with wilderness characteristics has succeeded to pinion, juniper or other woody vegetation, or where rangeland health has suffered for any other reason, a vigorous program of mechanical treatments such as chaining, logging, seeding, lopping, thinning, bull-hogging, burning or other mechanical treatments shall be applied to remove undesirable woody vegetation and biomass and stimulate the return of the grazing forage to its historic levels for the mutual benefit of livestock, wildlife and other multiple-uses in the County.

Policy: To the maximum extent allowed by law, where once-available grazing forage in wilderness and WSA lands has succeeded to pinion, juniper or other woody vegetation, or where land health has suffered for other reasons, a vigorous program of treatments such as chaining, logging, seeding, lopping, thinning, bull-hogging, burning or other methods shall be applied to remove undesirable woody vegetation and biomass and stimulate the return of forage to its historic levels for the benefit of rangeland and ecologic health.

Finding & Policy: Millard County finds lands comprising grazing districts and allotments in the County as more valuable for grazing than for any other incompatible multiple-uses which might exclude livestock grazing. Such other uses include but are not limited to conversion of AUM's to wildlife or wilderness uses. Accordingly, it is Millard County's plan, policy and program that animal unit months are not be relinquished or retired in favor of conservation, wildlife or other uses.

Policy: Millard County recognizes that from time to time a bona fide livestock permittee, acting in good faith and not to circumvent the intent of the federal grazing regulations, may temporarily cease grazing operations without losing permitted AUM's. However, agency-imposed suspensions or other reductions in domestic livestock AUM's shall be temporary and based on rangeland conditions and best science.

Finding & Policy: The transfer of livestock AUM's to wildlife for purported rangeland health is illogical, arbitrary and capricious and is opposed by Millard County. There is already imputed in each AUM a reasonable amount of forage for the wildlife component and allocation of additional forage is inconsistent with Millard County's Resource Management Plan.

Policy: Livestock AUM's that may have been reduced due to rangeland health concerns shall be restored immediately to livestock use when rangeland conditions improve. Rangeland health concerns shall be resolved within 3 years and reduced livestock AUM's shall be restored. The reduced AUM's shall not be converted to wildlife use without County Commission approval.

Policy: Where water resources have diminished because historic vegetative communities have succeeded to pinion, juniper or other undesirable woody vegetation and associated biomass, a vigorous program of mechanical treatments shall be implemented to promptly remove undesirable woody vegetation and biomass, stimulate the return of the grasses to historic levels, and thereby provide a watershed that maximizes water yield and water quality for livestock, wildlife, and other multiple-uses.

References:

Utah BLM Rangeland Health Standards

Chapter 4 Pinyon/juniper Woodlands, USDA Forest Service Gen. Tech. Rep. RMRS-GTR-202. 2007

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5434337.pdf, January 19, 2020, *Pinyon-Juniper Natural Range of Variation*

3.3 RECREATION & TOURISM

Introduction

Recreation and tourism are related activities that occur throughout Millard County. For this Resource Management Plan, recreation is any discretionary leisure activity that is intended to amuse, stimulate, divert or relax. Tourism is the act of travelling or sightseeing, particularly away from ones normal activity space. Tourism generally relies on visitor services and often supports businesses and communities. Recreationist's activities are often self-directed and frequently occur in remote areas without significant benefits to local economies. Residents and visitors to the County can engage in these related activities simultaneously or separately. Often one, usually tourism, leads to the other.

Recreation activities can be organized, community based activities or self-directed functions that primarily involve close-knit groups like friends or families. Community based recreation activities are centered in municipalities and are managed under guidelines established by the governing body. They are largely conducted in developed settings and can be generally described as rural or urban. When conducted outside municipalities, community base recreation activities usually rely on developed sites and have minimal impact on resources as a whole.

Recreation/tourism has become one of the major resource uses within the region. The term recreation includes a variety of activities that affect and are affected by resources and other resource uses. Millard and its adjoining counties offer a wide variety of recreational opportunities, especially for dispersed use, which rely on developed and undeveloped open space. These activities include wildlife viewing, hunting, hiking, backpacking, horseback riding, OHV use, fishing, bicycling, photography, camping, orienteering, river running, rock climbing, mountain biking, and sightseeing, among others.

Recreation resources include infrastructure, recreation sites and dispersed public lands, wildlife resources, visual resources, waterways, lakes, and other resources (physical, historical, etc.), each of which provides different recreational opportunities. In areas where recreation resources receive heavy use, developed recreation sites or facilities are often constructed to aid in managing impacts. Consequently, developed recreation sites are primarily located near high-use recreation attractions. Developed recreation areas may include such permanent features as picnic tables, drinking water, vault toilets/shower facilities, campsites, signage, and interpretive areas.

Regardless of the level of development, all tourism and recreation (dispersed and developed) rely to some degree on access. Even the most remote site begins at some point with motorized

transportation; and loss of transportation infrastructure negatively impacts all aspects of recreation and tourism.

Current Setting

Millard County uses the Recreation Opportunity Spectrum (ROS), a system of inventorying and managing recreation activities, settings, and experiences on public lands. The County primarily manages for five of the six ROS classes, including:

a) Primitive,
b) semi-primitive non-motorized,
c) semi-primitive motorized,
d) roaded natural, and
e) rural.

Roaded natural and rural ROS classes require very few restrictions. The primitive and semi-primitive non-motorized classifications are designed to provide certain types of recreation settings and may require restrictions to meet management objectives. Semi-primitive motorized areas approach roaded natural settings in many cases. Forest Service and BLM ROS designations are discretionary and are not required to conform to individual ROS inventories. Where land managers are required to Coordinate or be consistent with County land use plan, they must conform to the County plan to meet Coordination and consistency standards.

Recreation Management Areas (RMA) are a means used by the County to manage recreational use of state and federal lands. State and federal lands fall within either a Special Recreation Management Area (SRMA) or Extensive Recreation Management Area (ERMA). SRMAs are areas where more intensive recreation management is needed, and where recreation is a principal management objective. These areas often have high levels of recreation activity and valuable natural resources. Gunnison Bend Reservoir and the Paiute ATV trail are the only areas in the County being considered for SRMA designation. The reservoir's park is managed by the County and the ATV trail is managed and maintained primarily by the Counties, but is located on federal lands.

All areas outside of SRMAs are classified as Extensive Recreation Management Areas. ERMAs may contain recreation sites; but recreation is not specialized, and activities do not require intensive management. Although the primary management objective of an ERMA is not necessarily recreation, a large number of attractive recreation sites and areas may make actions toward management a consideration.

The Land and Water Conservation Fund Act authorizes five types of uses for which special recreation permits (SRP) are required: commercial, competitive, vending, individual or group use in special areas, and organized group activity and event use. Agencies also issue SRPs for non-commercial use in certain "special areas," including long-term visitor areas, and wilderness, river use, and backcountry hiking or camping areas.

Commercial SRPs are issued for commercial and competitive uses of public lands and organized events. SRPs may be issued for 10 years or less, with annual renewal, after which time outfitters must reapply for permits. The permits are issued as a means of managing visitor use, protecting natural and cultural resources, and providing a mechanism for accommodating commercial recreational uses.

OHV use has become a substantial recreation component over the past few decades, and the number of users who participate in this recreation opportunity steadily increases. Millard County has contemplated OHV concerns regarding resource conflicts and the desire to identify, designate, and increase opportunities for OHV-related recreation. Over the past 20 years, OHV use has become one of the fastest growing recreation activities in southcentral Utah, bringing thousands of visitors each year. Visitors are drawn to these areas to experience the numerous roads and trails available for OHV use, the diverse backcountry opportunities and spectacular scenery along with the challenging OHV opportunities the landscape and terrain provide. This trend is expected to continue.

The number of OHV registrations in Utah has increased substantially over the past several years, as have registrations in Millard County. The Transportation section of this RMP provides additional information regarding OHV use in the planning area. When the previous federal land use plans were completed, the level of OHV use in the planning area did not warrant extensive management restrictions. As a result, much of the area was open to cross-country use, although most use occurred along roads, trails or other areas that were already disturbed. OHV management in some areas did not adequately addresses the issues and conflicts that were a result of increased OHV use.

Several federal, state, and county agencies in the region have cooperated in developing trail systems to provide these varied opportunities. However, recent federal management plans have overreacted to purported conflicts and eliminated all open/cross country OHV opportunities in Millard County. The Paiute All-Terrain Vehicle Trail, with a trailhead in Fillmore, is a premier OHV recreation opportunity in central Utah and is an example of a trail system that allows for increased OHV use while minimizing impacts. In addition, the State of Utah Parks and Recreation Division has identified and publicized motorized trail systems throughout the

region. Federal agencies have failed to resolve issues associated with longstanding road and trail networks on federal lands confusion and uncertainty for OHV users and managers.

OHV management is regulated by various entities in the County including Millard County, State of Utah, BLM and Forest Service. Millard County exercises primary planning authority, and federal agencies are required to be consistent with the County Plan unless otherwise mandated by law. RMPs also define the management of OHVs through travel management plans that designate roads and trails according to BLM regulations. This Resource Management Plan identified a reasonable network of OHV trails in Millard County. Map 3.3.1, shows the OHV use designations for Millard County.

Need for Management Change

1) Land managers need to be consistent with Millard County's Resource Management Plan, ROS, Recreation Management Plan, and OHV Plan to the maximum extent allowed by law.

2) Traditional natural resource industries (timber harvest, mining, energy production, livestock grazing, etc.) that support local health, safety, welfare, prosperity, custom, culture and heritage and provide for stable communities need to be prioritized over discretionary recreation activities for people who live outside the County.

3) Consistent with land health, traditional natural resource industries (timber harvest, mining, energy production, livestock grazing, etc.) need to be maximized while optimizing recreational opportunities in the County.

4) Recreation and tourism activities need to have motorized access and appropriate solid and human waste collection and disposal mitigation.

5) Special Recreation Management Areas need to be limited to high value areas approved by the County Commission.

6) Land managers need to resolve ownership issues associated with roads, paths, ways and trails in Millard County.

7) At least 2% of the land in Millard County needs to be designated for open / cross country OHV use.

Desired Future Conditions

Millard County Desires:

a) Land managers Coordinate and are consistent with Millard County's Resource Management Plan, ROS, Recreation Management Plan, and OHV Plan to the maximum extent allowed by law.

b) Traditional natural resource industries (timber harvest, mining, energy production, livestock grazing, etc.) are prioritized over discretionary recreation activities for people who live outside the County.

c) Consistent with land health, traditional natural resource industries (timber harvest, mining, energy production, livestock grazing, etc.) are maximized while optimizing recreational activities.

d) Motorized access is maximized and consistent with Millard County's Transportation and OHV Plans.

e) Appropriate public services (law enforcement, access, emergency medical, solid waste, human waste, etc.) are provided for all recreational activities.

f) Agencies increase the use of Recreation and Public Purpose grants, especially to develop open / cross country OHV play areas.

g) Lands are managed for primitive recreation only when a) consistent with Millard County's RMP and b) when formally approved by the Millard County Commission.

h) Not less than 2% of the land in Millard County is designated for open / cross country OHV use.

Findings, Policies, Goal & Objectives:

Finding & Policy: Recreation is a discretionary function and is compatible with other appropriately managed multiple-use activities. Where recreation interests perceive conflicts with other multiple-use activities, recreation shall be subordinate to other multiple-uses unless otherwise:
a) mandated by law or
b) approved by the Millard County Commission.

Finding & Policy: Community based recreation is concentrated in developed areas and on private lands. Community based recreation activities will be managed under authorities of the municipality or management authority where they are conducted.

Finding & Policy: Motorized roads, paths, ways and trails provide access and are vital, in some degree, to every recreation and tourism activity. Closure of any road, path, way, or trail used by motor vehicles is a negative impact on recreation and tourism and shall be fully disclosed in any NEPA analysis. It is Millard County's policy to keep open all existing and historic roads.

Finding & Policy: Agency ROS designations are discretionary and are not required to conform to ROS inventories. Where land managers are required to Coordinate or be consistent with County land use plan, they must conform to County designations to meet Coordination and consistency standards. Failure to do so, unless specifically mandated otherwise by law, is arbitrary, capricious and an abrogation of authority.

Finding, Policy, Goal & Objective: Land managers shall optimize and maximize use of existing resources including motorized and non-motorized roads, paths ways and trails. All motorized and non-motorized roads, paths ways and trails in existence prior to January 1, 2015 are cultural resources created because of some human need. They are part of the Millard County transportation and recreation system and shall continue in use until formally discontinued/abandoned by action of the Millard County Commission. Land managers shall Coordinate and cooperate with Millard County in the management of the County's transportation and recreation system, including inventories, planning, maintenance, use, and abandonment.

Finding & Policy: All motorized and non-motorized roads, paths ways and trails on non-private lands in existence prior to January 1, 2015 were created as a result of some human need and constitute a recreation, transportation and cultural resource. Inclusion of a road, path, way, trail, campsite, overlook, trailhead, parking area, facility, human disturbance or other transportation, recreation or cultural resource in inventories, maps, descriptions, studies, plans, or documents of:
a) any federal, state or local government agency or
b) any non-profit, non-governmental or environmental organization / corporation constitutes evidence of the resource's past, current and continued need as a public resource.

Policy: To facilitate Coordination between land management agencies and Millard County, the following shall apply when managing recreation, transportation and cultural resources in existence on January 1, 2015:

a) All open public roads, paths, ways, and trials not claimed by a federal agency under 23 CFR 460 on January 1, 2015 are under the jurisdiction of the State or County where they are located.

b) All roads, paths, ways, trails, campsites, overlooks, trailheads, parking areas, facilities, human disturbances or other transportation, recreation or cultural resources whose existence is included in inventories, maps, descriptions, studies, plans, or documents of any federal, state or local government agency or any non-profit, non-governmental or environmental organization between January 1, 1970 and January 1, 2015 that are not the subject of:
i) a NEPA environmental document analyzing their creation,
ii) a decision authorizing their creation, or
iii) a trespass objecting to their creation between January 1, 1970 and January 1, 2015
are deemed to be legally authorized and in existence prior to January 1, 1970 and under the jurisdiction of Millard County.

c) Agencies disputing any determination for any resource identified in paragraph (b) shall provide evidence supporting their dispute in a public meeting of the County Commission and shall disclose: a discussion of the resource; the evidence documenting its creation; the dispute; and the agency's effort to resolve the dispute in any future environmental document or decision impacting the disputed resource.

d) All roads, paths, ways, trails, campsites, overlooks, trailheads, parking areas, facilities, human disturbances or other transportation, recreation or cultural resources whose existence is included in inventories, maps, descriptions, studies, plans, or documents of any federal, state or local government agency or any non-profit, non-governmental or environmental organization between January 1, 1970 and January 1, 2015 that are the subject of:
i) a NEPA environmental document analyzing their creation,
ii) a decision authorizing their creation, or
iii) a trespass objecting to their creation between January 1, 1970 and January 1, 2015
are under the jurisdiction of the land manager.

Policy: Roads, paths, ways, trails, campsites, overlooks, trailheads, parking areas, facilities, human disturbances or other transportation, recreation or cultural resources inventoried under directives of the Wilderness Act of 1964.

Finding & Policy: The health, safety, welfare and prosperity of Millard County's families and the stability of its communities are prioritized over discretionary recreational pursuits of those living outside the County. Consistent with land health and to the maximum extent allowed by law, recreation shall be subordinate to development of natural resource based industries that promote the health, safety, welfare, and prosperity of Millard County's families and the stability of its communities.

Finding & Policy: Economic resources derived from recreation and tourism on federal lands in Millard County are insufficient to be the primary source for encouraging a productive and

enjoyable harmony between man and his environment. Consistent with land health, managers shall encourage:
a) re-vitalization of traditional timber harvest, mining, energy production, and livestock grazing industries and
b) optimizing recreation and tourism subordinate to timber harvest, mining, energy production, and livestock grazing industries.

Finding & Policy: Geocaching impacts are similar to impacts from primitive recreation. Geocaching is allowed throughout Millard County unless otherwise restricted by the County Commission.

Policy: Dispersed – primitive camping shall be allowed within 100 feet of roads on public lands and in extensive recreation management areas (ERMAs), unless otherwise restricted by the County Commission.

Policy: Camping shall be allowed in riparian areas and at isolated springs and water sources.

Policy: Developed recreation sites smaller than 2 acres are allowed in ERMAs unless prohibited by the County Commission.

Policy: At least 2% of each agency's land in ERMAs shall be available for open / cross country OHV use. Lands transferred to Millard County for open OHV designation shall count toward the 2% minimum.

Policy, Goal & Objective: The Paiute ATV Trail shall be supported, developed, maintained and enhanced.

Policy: Establishment of fee sites shall be avoided whenever possible. Fee sites shall only be established when a) necessary to maintain developed sites and amenities and b) approved by the County Commission.

Policy: Special Recreation Permits that include cross country travel will be authorized on a case by case basis.

Policy: In addition to the County's OHV designations, agencies are encouraged to develop and implement OHV trail systems that provide a wide range of motorized opportunities.

Policy: Manage the Dominguez/Escalante Trail to optimize interpretation and in conformance with other sections of this plan.

Policy: Dispersed camping by groups of less than 100 should be allowed in ERMAs, except where resource damage has been documented. In SRMAs and in ERMAs where resource damage has occurred, camping by groups of more than 50 may be managed by special recreation permit.

Policy: Parking for dispersed camping within 100 feet of open roads, paths, ways, and trails on public lands shall be allowed unless signed to protect sensitive resources.

Policy: SRMAs may be closed to fluid minerals exploration, solid mineral leasing, mineral material disposal, and locatable mineral entry with Commission approval.

Policy: SRMAs shall be managed under avoidance/minimize/mitigate protocols of Rights-of-way.

3.4 TRANSPORTATION AND ACCESS

One of Millard's greatest management challenges is providing reasonable transportation and access to federal, state and local lands and providing areas for a wide variety of both motorized and non-motorized travel related activities. Travel and transportation are an integral part of every activity on public and private lands, including recreation, timber harvest, grazing, wildlife management, vegetation management, conventional and renewable energy development, mineral exploration and development, commodity resources management, ROWs to private inholdings, communications site maintenance, and overall public lands management and monitoring.

Prominent among the travel management issues in Millard County is the challenge of managing motorized activities on public lands. The combined effect of increased interest in public land recreation, rapid growth in the use of OHVs, and federal resistance to use of historic roads and RS 2477 rights-of-ways has generated increased social conflicts and uncertainty regarding transportation resources on public lands. These conflicts result in the loss of historic access, loss of cultural resources and diminish the County's health, safety, welfare, custom, culture and heritage.

Current Setting

The current transportation system in Millard County consists of federal and state highways, a comprehensive County transportation network, U. S. Forest Service roads and private roads. For the past two decades the Bureau of Land Management has not claimed any open public roads under federal statutes requiring such declarations. (See federal reports under 23 CFR 460)

The highest level vehicular transportation facility in the County is Interstate 15, which enters the northeast portion of the County north of Scipio at the Millard County line and traverses the eastern portion of Millard County in a southwesterly direction, exiting at Cove Fort into Beaver County. Interstate 70 begins its easterly route in the southeast corner of the County at Cove Fort and travels approximately 7 miles east until it reaches Sevier County. Several U.S. routes and state highways (US 6, US 50, SR-99, SR-100, SR-125, SR-133, SR-257, SR-21, and SR-132) are also located in the County. US 6 & 50 run in a westerly direction and provide access into Nevada. SR-257 runs north-south through the middle of Millard County. The Interstate and state highways constitute the major arterial network in the County. These major highways are augmented by a vast and intricate system of County collector, local and resource roads, which provide needed access to the bulk of the County's land base.

Collector roads distribute traffic from major highways to local roads which in turn distribute traffic to numerous smaller routes and resource roads that connect more remote locations to the larger roads. These routes are used for recreational purposes and access to range improvements,

mineral development, and state and private inholdings. Most of the lower level routes are not paved and many are unimproved or have dirt or gravel surfaces. Each route provides access to some distinct location.

Public roads under state or local jurisdiction in the State of Utah are classified in a variety of ways with the most common system being funding categories. Funded roads include State highways (Class A), county roads (Class B), and city streets (Class C). In addition to the funded roads, Utah State Code recognizes Class D roads as important County transportation routes that are not given state funding but provide vital access to many less developed areas. The original Class D legislation was adopted at the time when the Federal Land Policy and Management Act repealed longstanding federal law authorizing the construction of highway across federal lands not reserved for other public uses. The repealed law, known as Revised Statute 2477 or RS 2477, had been used for 110 years, since its inception in 1866, to authorize the construction of the majority of the network of public roads in the western United States.

RS 2477 did not require any formal recognition or documentation process, so roads vested as soon as they were created either by public construction or consistent use. During the last three decades (from 1986 to the present), well-funded, special interest groups have taken advantage of the documentation gap and have opposed continued use of the County's historic RS 2477 rights-of-ways – often in an effort to create roadless/wilderness areas where none exist. The selfish interests have initiated numerous lawsuits and invoked delay tactics resulting in expensive conflicts over almost all roads in Utah's public land Counties. For its part, the federal government (and BLM in particular) has vacillated between support of and opposition to the Counties' rights-of-way with each changing administration. In the late 1990s, BLM abandoned all claims to maintenance of any open public roads on its lands; and since that time has BLM reported under 23 CFR 460 it has jurisdiction over zero (0) public road miles in the State of Utah.

Public roads on Forest Service lands are problematic because RS 2477 required the road exist on the ground prior to national forest designation. Most of the national forests in Utah were designated near the first decade of the 20th century, so lack of documentation has made RS 2477 more difficult on Forest lands. In recent years, local forest leadership have also succumbed to special interest pressure and have inappropriately closed roads that have provided historic and needed access to many areas of the County.

In order to preserve public access, the State of Utah and its Counties have been forced to file more than 12,000 lawsuits in federal court to have RS 2477 rights recognized on the most easily documented roads throughout the State. Some estimates indicate there are likely more than 25,000 additional roads eligible for RS 2477 recognition, but costs for documentation and litigation are far in excess of available funding.

Resolution of RS 2477 issues is complicated by disingenuous federal positions which disavow federal jurisdiction over the roads but also fail to recognize the rights of the County or State. Some federal resource management plans indicate federal agencies have no knowledge of local governments' interest in preserving historic rights-of-way. Other agencies of the federal government claim there is no dispute or courts don't have jurisdiction or local governments should have resolved the issue earlier and have lost the right to use the road. In every case, the spurious positions are, in some way, tied to an unhealthy desire to eliminate the presence of man on the land.

Millard County's transportation network is depicted on Map 3.3.2. Most of the County's road network was developed under provisions of RS 2477 or prescriptive easement law identified in Utah Code. Mapping was developed using information from state and county governments, GPS ground truthing, testimony of local individuals, and photo-enhanced aerial photography.

The County's transportation network also supports an expanding recreational and non-recreational OHV component. Utah law authorizes Counties to designate road, paths, ways and trails for public OHV use. Additionally, administrative OHV use occurs in association with permitted activities, administration of grazing operations and a variety of other uses. OHV use has also become a popular method of recreation in of itself, and a means of transportation while hunting, fishing, or camping. Snowmobile use occurs in certain areas during the winter months when sufficient snow is present. Millard County's public OHV network is depicted on Map 3.3.1.

In addition to motorized use, Millard County's transportation network is the primary component in the County's non-motorized travel. Biking, hiking and equestrian use are authorized on County rights-of-way unless otherwise prohibited. Generally, Millard County's roads, paths, ways and trails are designated for multimodal use unless resource or safety concerns require restrictions on some uses.

The Special Designations section of this Resource Management Plan identifies additional areas where transportation facilities impact or are impacted by transportation facilities other resources. Information on scenic byways and backways, wilderness areas, wilderness study areas, areas of critical environmental concern, and special recreation management areas can be found in the Special Designation and Recreation sections of this plan.

Many of the federal lands in Millard County, including those with management restrictions, have state or private lands adjacent to or within their boundaries. State and private lands that are completely or almost entirely surrounded by federally administered lands are called inholdings. Access to these lands varies and may or may not currently exist. In United States v. Cotter Corp.

(*State of Utah v. Andrus*, 486F. Supp. 995, 1979) the Court ruled the state must be allowed access to the state school trust lands so that those lands can be developed in a manner that will provide funds for the common school. The decision confined the issue of access to situations directly involving economic revenues generated for the school trust. However, similar principles may apply to other situations. Utah State Code recognizes County easements across school trust lands, and SITLA has worked with local governments to resolve access issues in a mutually beneficial manner. Similarly Utah State Code recognizes prescriptive rights for County roads that have existed on private lands for more than 10 years.

The County's transportation network also includes airports and airstrips. Airports are developed facilities that are managed by federal, state and local authorities where they are located. Airstrips are generally undeveloped landing areas located in remote locations. Often the airstrips were developed under RS 2477 principles and are located in remote back-country areas. Although still limited, use of back-country airstrips is increasing, and known facilities are identified as part of the County's transportation network.

Millard County employs a comprehensive interdisciplinary, multi-modal approach to transportation planning to address all resources, including public and administrative access needs. The full range of various modes of travel on public land is considered to develop a system of roads, primitive roads, paths, ways, trails, airstrips and travel areas for appropriate uses. During the land use planning process, Millard County has identified OHV and Travel Management areas.

Travel management areas are a planning and management designation used to address specific travel issues, such as the need for higher-level public involvement, consideration of special resource characteristics, or manageability of the area. Travel management areas are discrete areas where Millard County identifies acceptable modes of access and travel including over-land, over-water, over-snow, and fly-in access. In developing these areas, the County considers consistency with other program areas, the primary type of travel the area receives, the objectives for the area, and the area's setting (land use, visual and recreation opportunity spectrum) characteristics.

Millard County has designated open, limited and closed OHV management designations for lands under County jurisdiction and for federal lands under proprietorial jurisdiction. The designations apply to state and federal lands in the County and are as follows:

a) Open means an area where all types of vehicle use are permitted at all times subject to state operating regulations and vehicle standards;

b) Limited means an area restricted at certain times, in certain areas, and/or to certain vehicle use.

c) Closed means an area closed to motorized travel, unless otherwise approved by the County or required by law.

OHV designations in Millard County are depicted on Map 3.3.1.

Some locations in the County receive intensive OHV use, based on landscape characteristics, accessibility, or support facilities. One such area is Little Sahara Sand Recreation Area. Where intensive use is appropriate, areas have been designated as open. Elsewhere, travel restrictions protect resources and limit OHV use to roads, paths, ways, and trails. Closed areas will be used for lands determined to be unsuitable for OHV use, wilderness and other conditions designated by the County Commission.

Need for Management Change

1) Land managers need to inventory and document every transportation facility that currently exists on their land.

2) Land managers need to develop a system where historical transportation facilities can be evaluated, considered and recognized in normal planning processes.

3) Federal agencies need to revise existing management plans to bring them into consistency with the local transportation network, and in compliance with State and Federal law.

4) Millard County, State, and Federal land managers need to develop a system to prevent unauthorized development of transportation facilities.

5) Federal and State land managers need to recognize the existing, on the ground transportation network as the minimum necessary to fulfill Congressional mandates, to complete purposes delineated in enabling legislation, and to preserve the health , welfare, custom, culture, heritage, and socioeconomic viability of Millard County.

6) Millard County and land managing agencies need to Coordinate and work cooperatively to resolve transportation issues that are affecting sensitive resources.

7) All highways, roads, paths, ways, and trails in Wilderness Areas, Wilderness Study areas, and Non-WSA lands with Wilderness Character need to be carefully and accurately field inventoried using GPS technology to

a) identify the existing on the ground network,
b) prevent proliferation of future unauthorized routes and c) preserve historic routes that existed at time of original inventory.

8) All transportation facilities not claimed by a federal agency under 23 CFR 460 need to be recognized as being under County jurisdiction.

9) Land managers need to identify and disclose the County's potential RS 2477 rights-of-way.

Desired Future Conditions:

Millard County desires:

a) Transportation issues be resolved in a manner which preserves access to public and private lands while protecting resources.

b) Federal and State land managers recognize Millard County's Transportation Network and comply, to the maximum extent allowed by law, with Millard County's stated goals, plans, desires, and needs.

c) RS 2477 issues are resolved and the County's needs for access to public lands be recognized and accommodated.

d) If NEPA authorized rights-of-way are used to resolve RS 2477 transportation issues, at a minimum, the rights-of-way need to include:
1) rights enjoyed under the non-NEPA rights-of-way;
2) sufficient width and scope to allow ultimate development of the transportation facilities without additional analysis; and
3) provisions to allow a blanket resolution of transportation issues rather than a case-by-case basis.

e) Unauthorized use of cross-country travel on public and private lands is eliminated.

f) To Coordinate and work cooperatively with State and Federal agencies in educating the public and preventing unauthorized travel on public and private lands.

g) The County's Transportation Map/Plan be recognized and authorized by State and Federal agencies.

j) That as historical facilities are identified through expanding technology, they are appropriately

documented evaluated and authorized.

k) Roads, paths, ways, trails, airports, airstrips and other transportation facilities are preserved and enhanced consistent with the Millard County Resource Management Plan.

l) RS 2477 rights-of-way are identified, analyzed, acknowledged, and recognized by federal agencies.

Findings, Policies, Goals & Objectives

Goal & Objective: Preserve, protect and enhance a transportation system that maintains harmony between man and his environment by a) optimizing a variety of uses, b) minimizing user conflicts and c) contributing to protection and conservation of sensitive resources.

Goal & Objective: Provide for the optimal range of motorized and non-motorized access opportunities to public and private lands in Millard County.

Policy, Goal & Objective: Millard County will integrate best management practices into travel and transportation management to optimize harmony between man and his environment.

Policy, Goal & Objective: Millard County will Coordinate with state officials, federal agencies and other stakeholders to enhance the County's transportation network while maximizing harmony between man and his environment.

Finding: Transportation facilities are vital to the preservation of the County's custom, culture and heritage and constitute cultural resources. Well maintained transportation facilities benefit all public land resources, uses and users.

Finding & Policy: Millard County's transportation network identified in the County Resource Management Plan is the minimum necessary to a) provide for the health, safety, welfare, custom, culture, heritage and community stability of Millard County's residents and visitors; and b) ensure a productive and enjoyable harmony between man and his environment.

Finding & Policy: Closure of any transportation facility without County concurrence is a negative impact on the County's health, safety, welfare, custom, culture and heritage and is inconsistent with Millard County General Plan.

Policy: Millard County asserts claim and jurisdiction over all RS 2477 rights-of-way located inside Millard County and outside municipal boundaries.

Finding & Policy: Millard County desires to Coordinate and cooperate with state and federal agencies in the management of transportation facilities in Millard County. The County may accept easements, rights-of-way, agreements, memorandums, or other mechanisms that preserve, protect and enhance the County's transportation network.

Finding & Policy: Transportation facilities in Millard County not claimed by state or federal agencies under 23 CFR 460 as of January 1, 2015 are under the jurisdiction of Millard County.

Finding & Policy: Transportation facilities in existence on or before January 1, 2015 that have not been the subject of an unresolved trespass claim as of that date are deemed to be valid rights-of-way under County jurisdiction until proven otherwise by a court of competent jurisdiction. Closure or management restrictions by a federal agency on transportation facilities not claimed by the agency under 23 CFR 460 as of January 1, 2015 is arbitrary, capricious, inconsistent with local plans, policies and programs, and a violation of local law.

Finding & Policy: Transportation facilities identified in the Millard County Resource Management Plan shall continue until formally abandoned by the County in accordance with Utah State Law. When transportation facilities are no longer of beneficial use, as determined by the County Commission, the provisions of UCA 72-3-108 will be followed.

Finding & Policy: All transportation facilities in Millard County are cultural resources and provide needed access to a specific place. Existence of the transportation facility is *prima facie* evidence of:
a) a bona fide purpose and need for the facility and
b) human desire to access a specific destination.

Policy, Goal & Objective: Agencies shall identify and disclose all roads and highways constructed prior to October 21, 1976 on federal lands not reserved for other public uses in NEPA analysis for areas where such roads and highways are located. Transportation facilities shall be deemed to pre-date October 21, 1976 unless documented evidence (NEPA analysis, contracts, trespass notices, etc.) prove otherwise.

Finding, Policy, Goal & Objective: On federal lands reserved for public purposes, agencies shall identify and disclose all transportation facilities constructed prior to their enabling legislation in NEPA analysis for areas where such highways are located. Transportation facilities shall be deemed to pre-date enabling legislation unless documented evidence (NEPA analysis, contracts, trespass notices, etc.) prove otherwise.

Policy: Millard County asserts jurisdiction over all highways, roads, paths, ways, trails, airports, airstrips, landing strips, and other transportation facilities, unless they have been determined to be invalid and/or under the jurisdiction of another agency by a court of competent jurisdiction.

Finding & Policy: Millard County finds and declares the existing on the ground and/or mapped network of roads, paths, ways, trails, highways, airports, airstrips, and other transportation facilities is the minimum necessary to provide for the health and welfare, custom, culture, and socioeconomic viability of Millard County.

Policy: Millard County asserts the maximum extent of the federal road, path, way, trail, highway network are those facilities claimed by federal agencies under 23 CFR 460 or proven by documented evidence; and all other transportation facilities are under the jurisdiction of Millard County.

Finding & Policy: To the extent roads include segments located on private and SITLA lands, and to the extent Millard County has rights-of-way over these lands and federal agencies do not, Millard County asserts that it has jurisdictional responsibility over adjoining segments of these transportation facilities and federal agencies do not.

Policy: Millard County will Coordinate with state and federal agencies to resolve valid existing rights, transportation needs, maintenance requirements, improvement projects, and other right-of-way and/or scope issues.

Finding & Policy: Well-maintained roads achieve a productive and enjoyable harmony between man and his environment while preserving and enhancing land health.

Policy: For roads determined not to be a valid existing right by a court of competent jurisdiction, the County may apply for an appropriate right-of-way or abandon the road in accordance with State law.

Policy: For transportation facilities the County no longer desires to have under its jurisdiction, the County will initiate the abandonment process in accordance with state law.

Policy: For all transportation facilities, Millard County will, over the course of time, improve the facility to meet American Association of State Highway and Transportation Officials (AASHTO), national or other applicable standards.

Policy: Prior to closure of any transportation facility on federal lands, the following information shall be identified, analyzed and disclosed in an appropriate NEPA document:
2.Date of the original construction and use

3.Method of original construction and use
4.Detailed GPS centerline
5.Purpose for which the facility was developed
6.Length of time the facility was used
7.Users of the facility
8.Map, plan, BLM GLO plats, and study data citing the facility
9.Jurisdictions asserting ownership of the facility
10.Jurisdictions asserting construction of the facility
11.County position regarding proposed status
12.Level 3 cultural resource survey
13.Potential socio-economic impacts of the closure

Closure of any transportation facility without identification of the information listed above is inconsistent with the Millard County General Management and a violation of the County's plan, program and policy.

Finding & Policy: Millard County asserts federal agencies have complied with statutes requiring appropriate environmental analysis, permitting and management processes prior to implementation of transportation projects. Transportation facilities that are not subject to trespass as of January 1, 2006 or that a lack accurate evidence documenting their construction after the passage of enabling legislation, are presumed to be valid and existing rights that were developed prior to the creation of such legislation.

Policy: Closure of transportation facilities as part of federal or state planning processes without County concurrence, and/or without final determination of jurisdiction by a court of competent jurisdiction is a violation of valid existing rights and is arbitrary and capricious.

Policy: Closure of existing transportation facilities without County concurrence and/or determination of jurisdiction by a court of competent jurisdiction damages the health, safety, welfare, custom, and culture of the County and is inconsistent with the Millard County General Management Plan.

Policy: State and federal agency plans that fail to identify and disclose potential valid, existing rights are inconsistent with Millard County's General Management Plan. Millard County encourages these entities to review and revise their transportation plans and bring them into consistency, to the maximum extent allowed by law, with Millard County's General Management Plan at the earliest possible date and in accordance with agency review schedules.

Policy: Some transportation facilities that were originally developed for motorized use may, at present, be more suitable for non-motorized used. Millard County's concurrence for non-

motorized restrictions is required, and such non-motorized use at the present time does not abandon opportunities for future motorized use.

Finding & Policy: All highways in existence prior to October 21, 1976 are valid, existing rights-of-way. Closure of any such facility without concurrence of Millard County violates requirements that management plans be subject to valid existing rights. Absent trespass actions filed prior to January 2006 and/or objective evidence to the contrary, assuming existing transportation facilities are not valid rights is arbitrary and capricious.

Finding & Policy: All transportation facilities identified as part of the intense study phase associated with the 1964 Wilderness Act or in existence at that time constitute roads and ways that impact wilderness status. Failure to depict inventoried roads and ways in current and future planning documents is inconsistent with agency responsibilities to disclosed environmental consequences and is a misrepresentation of factual data.

Finding & Policy: Transportation facilities located within the boundaries of WSAs and non-WSA lands with wilderness character have not been or were not adequately inventoried. Unless there is objective evidence to the contrary, Millard County finds that the transportation facilities that currently exist within WSAs and in non-WSA lands with wilderness character existed at the time of the original inventory and were either ignored or overlooked. Millard County further finds that these transportation facilities are evidence of man or are indications that man was not a visitor and may constitute valid existing rights.

Finding & Policy: Millard County finds that it has the authority to maintain its transportation network without contacting the land management agencies where the facilities are located. The County also finds that prior to implementing improvement or construction projects, the appropriate land management agency must be consulted.

Finding & Policy: Millard County finds its transportation network has not been fully developed and is largely underutilized. Closure of more than one percent (1.0%) cumulative or expansion of more than 10% of the existing facilities in any project area or agency boundary without County concurrence constitutes a significant negative impact to the health and welfare, custom, culture, and socioeconomic viability of Millard County.

Finding & Policy: Millard County finds it is in the public's best interest for the County, and land management agencies to Coordinate and cooperate regarding right-of-way issues.

Finding & Policy: Millard County finds that its transportation network is the system that best meets the needs of the traveling public and best achieves a productive and enjoyable harmony between man and his environment.

Finding & Policy: Management actions, which are contrary to the County's transportation plans, programs and policies, are not consistent to the maximum extent allowed by law and are inconsistent with agency responsibility and/or the County's General Management Plan.

Policy, Goal & Objective: Travel Management Plans developed by state and federal agencies shall be consistent to the maximum extent allowed by law with Millard County's transportation plans, policies, goals, objectives, and programs.

Policy: High volume roads with average annual daily traffic in excess of 400 vehicles per day shall be avoided in priority wildlife habitat with Wildlife Habitat Evaluation Guide (WHEG) values greater than 0.7. Where location of high volume roads in priority wildlife habitat is unavoidable, impacts will be minimized and appropriate mitigation will be implemented.

Policy: High volume roads with average annual daily traffic in excess of 400 vehicles per day shall be allowed in priority wildlife habitat with WHEG values less than 0.7 if impacts are minimized and appropriate mitigation is implemented.

Policy: Low volume roads with average annual daily traffic less than 400 vehicles per day shall be allowed in priority wildlife habitat if impacts are minimized and appropriate mitigation is implemented.

Policy: ATV use in priority wildlife habitat shall be limited to existing or designated roads, paths, ways and trails.

Finding, Policy, Goal & Objective: ATV use is an expression of Millard County's custom, culture and heritage. Agencies shall identify and designate at least 2% of their lands for open ATV use and shall maximize ATV use of existing roads, paths, ways and trails.

Policy: Motorized and non-motorized cross country travel shall be allowed for administrative uses, including permitted resource uses, search and rescue, medical, law enforcement, and emergency access. Such travel shall not constitute or establish precedent for a new road.

Policy, Goal & Objective: No transportation facility identified in the Millard County Transportation Plan – including facilities that are duplicative, parallel or redundant - shall be closed without:
a) concurrence from the Millard County Commission,
b) compliance with UCA 72-3-108; and
c) development of compensatory routes where appropriate.

Finding & Policy: Over-the-snow travel is not a surface disturbing activity and shall not be analyzed as having impacts at or below the ground surface without County Commission concurrence.

Finding & Policy: Transportation facilities identified in the Millard County Transportation Management Plan are existing, historic disturbances and are cultural resources with a bona fide purpose and need. No transportation facilities identified in the Millard County Transportation Management Plan are deemed to be duplicative, parallel, or redundant. Where potential resource use or conflicts with transportation facilities identified in the Millard County Transportation Management Plan exist, management deference/priority shall be given to the transportation facility, unless otherwise approved by the County Commission.

Finding & Policy: All recreationists use the Millard County transportation network at some point. Unless otherwise approved by the County Commission, transportation/recreation conflicts shall be resolved in favor of:
a) the recreation user in areas designated by Millard County for wilderness management and
b) the transportation facility in areas not designated by Millard County for wilderness management.
Failure to comply with this provision is arbitrary, capricious and inconsistent with the County's management plan.

Policy, Goal & Objective: Motor vehicle use and transportation facilities shall be managed according to the designations identified in Millard County's transportation map and OHV map.

Policy: Motorized over-the-snow cross country travel is allowed in all areas of the County. Motorized over-the-snow cross country travel may be prohibited in designated areas only after:
a) Coordination with the County Commission,
b) concurrence from the County Commission and
c) appropriate changes in the County's transportation plan.

Policy: Land managers shall cooperate with state and local governments in the maintenance of transportation facilities identified in the Millard County transportation management plan. Roads, paths, ways, and trails shall be maintained and improved to the maximum extent allowed by their authorization. Where no formal authorization exists, the County may maintain transportation facilities within the limits of the existing disturbance without notice. Prior to performing substantial upgrades on transportation facilities with no formal authorization, the County will consult with appropriate agencies to the extent necessary to comply with law.

Policy: In accordance with U.C.A. 72-7-102, any person or agency that digs, excavates, places, constructs, or maintains any approach road, driveway, pole, pipeline, conduit, sewer, ditch,

culvert, billboard, advertising sign, or any other structure or object of any kind or character within a County designated transportation facility without County Commission approval is in violation of law and may be prosecuted for a class B misdemeanor.

3.5 LANDS & REALTY

Current Setting

The lands and realty program is a support program to all other resources and resource uses. The goals of Millard County's lands and realty program are to:
a) acquire federal and state lands to support the goals and objectives of other resource programs,
b) provide for uses of public lands in accordance with applicable laws and regulations while protecting sensitive resources, and
c) improve use of federal and state lands through land tenure adjustments. The program prepares requests for ROWs, permits, leases, withdrawals, and land tenure adjustments for other programs or outside entities. The frequency of such requests is anticipated to increase as communities grow and the demand for use of public lands increases. As a result, future efforts of the lands and realty program will likely become more intense, complex, and costly.

The following sections describe the current features, forecasts, and key features of lands and realty in the County.

Utility Corridors

Utility corridors are preferred routes that collocate multiple linear utility ROWs and are often adjacent to existing highways or county roads. Utilities in these corridors can include gas and water pipelines, petroleum pipelines, electric transmission and distribution powerlines, and communications lines such as telephone or cable. Federal and state managers prefer the placement of new ROWs within designated transportation and utility corridors, to the extent practicable. However, factors such as origination, destination, purpose, compatibility, saturation, and Western Electricity Coordinating Council (WECC) reliability standards for existing corridors, can prevent or limit the placement of a new line within an existing corridor.

Section 368 of the Energy Policy Act of 2005 (Public Law 109-58, August 8, 2005) directed the Secretaries of Agriculture, Commerce, Defense, Energy, and the Interior to designate under their respective authorities, corridors on federal land in 11 western states for oil, gas, and hydrogen pipelines, electric transmission and distribution facilities, or energy corridors. The West-Wide Energy Corridor Programmatic EIS designated corridors on public lands in the County. Maps are available from the West-Wide Energy Corridor Programmatic EIS website.

Designation and use of utility corridors for the collocation of ROWs has become a relatively common practice for federal agencies. Similar to past and present development, future

development of linear utility infrastructure projects (particularly large projects) will likely continue to be preferred in designated utility corridors or other areas adjacent to existing development. Collocation of utility infrastructure could continue to concentrate development, and associated surface disturbance, to certain areas, including areas adjacent to highways, major county roads, Section 368 Corridors, and other designated corridors.

Drivers for development in utility corridors include population growth, residential and commercial development, demand and delivery of energy resources, increased reliability of infrastructure (e.g., transmission lines), and improvements to aging infrastructure.

One challenge facing the land managers, as it pertains to the desire for using and establishing corridors, is the WECC reliability capacity rating standards for transmission. According to WECC, placing transmission lines too close to one another can limit transfer capacity of a line. Project developers must comply with the WECC reliability capacity rating system and are finding that siting proposed transmission lines in existing corridors might not be feasible to achieve the maximum transfer capacity rating from WECC. To date, the BLM has not established guidance on the issue, but could consider the WECC guidance during the planning process.

Areas with the highest demand potential for utility corridors include the corridors designated by the West-Wide Energy Corridor PEIS and other existing linear corridor areas, including state highways and county roads. In addition, areas targeted for designated utility corridors include existing major roads, trans-regional pipelines, electric transmission powerlines, and railways.

Communication Sites

Federal agencies typically issues Communications Use Leases for communications facilities on their lands. There are numerous authorized communications facilities on federal and state administered lands in the County. Agencies have permitted past and ongoing development case by case, and communications sites have typically been constructed on ridges, mountaintops, and other high-elevation locations that provide the greatest coverage for consumers. Based on public need, topography, and other factors, past and ongoing communications site development will likely be focused on acceptable areas.

Similar to past and present actions, future communication sites will likely be on mountaintops and other high-elevation locations to attain maximum coverage for reliable telecommunication service to meet the needs of federal, state, and local governments, and the public. The BLM will continue to authorize ROWs for communication use leases for site development and maintenance.

Drivers for the development of communication sites and demand for leases include increasing public demand for communication coverage throughout the country, new and emerging

technologies and equipment, and the need to upgrade existing facilities. The probability of companies applying for communication use leases on public lands in the planning area is high. Telecommunication companies want to expand communication coverage along the Interstate 15 corridor and in other parts of the planning area. New equipment to support data services over the wireless interface is being deployed, and in certain cases, where signals only cover about half the distance of the existing system, more wireless facility locations will be required to meet capacity objectives for coverage and network.

Indicators of stress on existing communication site leases include increases in applications for communication site facilities in expanded or new areas. Agencies generally encourage and prefer collocation at existing sites when possible, and many sites have multiple-users who are compatible with other users at the sites. However, there will be an increase in applications for new sites on federal lands as these existing sites fill to capacity and more consumers utilize new and existing technology, especially in rural areas.

Land Use Authorizations

Rights-of-Way - Various statutes give BLM and Forest Service the authority to issue rights-of-way on federal lands for oil and gas pipelines, highways and related material sites. A right-of-way grant is an authorization to use a specific parcel of public land for a certain use, such as roads, pipelines, transmission lines, and communications sites. A right-of-way grant authorizes rights and privileges for a specific use of the land for a specific period. In general, the right-of-way is granted for a term appropriate to the life of the project. Right-of-ways are authorized by grants, leases for communications sites, or temporary use permits related to the Mineral Leasing Act. A right-of-way authorizes the holder to construct, operate, maintain, and/or terminate a new or existing facility over, under, upon, or through public lands. Such authorizations are issued for commercial and non-commercial purposes, and can be for energy, or non-energy, related uses. Rights-of-way may be issued to other federal agencies, state, county, and local agencies and governments, and private individuals, associations, or corporations.

While a right-of-way is typically authorized through a grant, some agencies also issue communications use leases for communications facilities.

Federal and state lands throughout the County have generally been available for all types of rights-of-way, and agencies have analyzed past and ongoing applications case by case. Land use authorizations have typically been limited in areas managed or allocated for specific resource concerns and uses, including ACECs, Special Recreation Management Areas (SRMAs), and WSAs. Past and ongoing land use authorizations (e.g., high wind resource areas for wind projects) are generally ideal for specific authorizations that would collocate facilities or otherwise limit resource conflicts and surface disturbance.

Trespass – Trespass is the unauthorized use of property. Land managers have the responsibility to protect the public lands from trespass and encroachment through means of prevention, detection, and resolution. Land use authorizations, including grants, permits, and land exchanges, have been issued to resolve trespass issues. Locations on public lands where trespass is most likely include areas where residential and commercial development interface with public lands. There are few known occurrences of trespass on public lands in the County, and federal agencies continually monitor for new occurrences.

Leases & Permits – Land managers may authorize the use, occupancy, and development of public lands, through leases and permits, for uses not authorized through other authorities. Applicants can be state and local governments, companies, non-profit organizations, or private individuals. These uses of public lands include agricultural development, residential use (under certain conditions), commercial use, advertising, and National Guard use. Permits are usually short-term authorizations not to exceed 3 years.

A lease is an authorization to possess and use public land for a fixed period. Leases are issued when there is going to be substantial construction, development, and improvement, and there is an investment of large amounts of capital that will be amortized over time.

Agencies authorizes permits when uses of public lands will be short in duration and involve little or no land improvement, construction, or investment. Permits have been used as a method to resolve unauthorized use, stipulating that the applicant remove or halt the unauthorized use and rehabilitate the land, if necessary.

There is high probability that the number of land use authorizations in Millard County will increase due to renewable energy-related, residential, and commercial development, and public lands that interface with areas of increasing population and development.

Land Tenure

Generally, provisions of FLPMA and NFMA require public lands are to be retained in federal ownership, unless as a result of the land use planning procedure provided for in the acts, it is determined that disposal of a particular parcel will serve the national interest. Land can often be identified for disposal by sale, exchange, state indemnity selection, or other authorized methods. Land types are identified for acquisition based on public benefits, management considerations, and public access needs. Specific actions that meet land tenure adjustment criteria established are partially established in this County RMP and will require consultation and coordination various levels of government.

Millard County has a mixed ownership land pattern. Although the potential for resource values might be high on some parcels, lack of access to these parcels or isolation from other resources make them very difficult for federal agencies to manage. Land tenure adjustments help to resolve split-mineral-estate situations, consolidate public lands (through sale, exchange, or acquisition), acquire access, and resolve cases of unauthorized use. Such adjustments are also important to local and state governments to consolidate ownership and to make lands available for public purposes.

Sale - The BLM manages public land sales under the disposal criteria in FLPMA Section 203. Public lands determined suitable for sale are offered on the initiative of the BLM, identified in an agency resource management plan, and sold at not less than fair market value. Public lands classified, withdrawn, reserved, or otherwise designated as not available or not subject to sale, are unavailable. Lands to be disposed of by sale that are not identified in the current agency resource management plan require a plan amendment before a sale.

Sale authority under 43 CFR 2710.0-3 (a) authorized by FLPMA allows the BLM to sell public lands where, as a result of land use planning, it is determined that (1) the tract was acquired for a specific purpose but is no longer required for that or any other federal purpose, (2) disposal of such tracts serves important public objectives, including expansion of communities and economic development, and (3) such tracts are difficult and uneconomical to manage because of their location or other characteristics.

According to FLPMA, sales of public lands under 43 CFR 2710.0-6 shall be conducted under competitive bidding procedures. However, if the Secretary of the Interior determines it necessary and proper so as to ensure equitable distribution among purchasers of lands, or to recognize equitable considerations or public policies, lands may be sold by modified competitive bidding, or without competitive bidding. There are three methods of sales: competitive, modified competitive, and direct sale.

Acquisition – Millard County has a no net loss of private land policy. However, after coordination with Millard County and with concurrence of the County Commission, acquisition of private land may be authorized under FLPMA Section 205(a) if pursued to facilitate various resource management objectives. Approved acquisitions, including easements, can be completed through exchange, Land and Water Conservation Fund purchases, donations, or receipts from the Federal Land Transaction Facilitation Act. In 1964, Congress established the Land and Water Conservation Fund (Public Law 88-578) to provide for the acquisition of public lands to meet the needs of all Americans for outdoor recreation and open space. The purposes of acquiring these lands include improving manageability and ensuring access to BLM-administered lands, and to protect or enhance important resources.

Exchange - Exchanges of public land are conducted in accordance with FLPMA Section 206, which requires a determination that the public interest will be well served by making an exchange. However, the Secretary must consider better public land management and the needs of the state and the local population, including land needs for the economy, community expansion, recreation areas, food, fiber, minerals, and fish and wildlife. The Secretary must also find that the values and objectives that public lands or interests considered for exchange could serve if retained in federal ownership are not more than the values of the non-public lands or interests and the public objectives they could serve if exchanged.

Public lands have potential for disposal when they are isolated and/or difficult to manage. Lands identified for disposal must meet public objectives, such as community expansion and economic development. Other lands can be considered for exchange on a case by case basis. Disposal actions are usually in response to public requests or applications that result in a title transfer, under which the lands leave the public domain.

Recreation and Public Purposes Act

Recognizing the strong public need for a nationwide system of parks and other recreation and public purposes areas, Congress enacted the Recreation and Public Purposes (R&PP) Act (43 U.S.C. 869 et. seq.) in 1954 as a complete revision of the Recreation Act of 1926 (44 Statute 741). FLPMA Section 212 further amended the R&PP Act to require that suitable public lands be available for established or definitely proposed projects, and to establish annual acreage limitations. The BLM administers the R&PP Act, which authorizes the sale or lease of public lands for recreational or public purposes to state and local governments, and to qualified non-profit organizations. Lands disposed of under this act are done so with a reversionary clause in the patent.

Examples of typical uses under the R&PP Act include historic-monument sites, parks, campgrounds, schools, firehouses, law enforcement facilities, municipal facilities, hospitals, and fairgrounds. Throughout rural Utah, R&PP sales and leases have included shooting ranges, parks, schools, boy scout camps, landfills, and recreation sites. Any state, state agency, or political subdivision of a state, may purchase for recreational purposes up to 6,400 acres annually, and as many small roadside parks and rest sites (up to 10 acres each) as needed. In addition, any state agency or political subdivision of a state may acquire 640 acres annually for each public purpose program other than recreation.

R&PP leases with reversionary clauses are not be used for the purpose of authorizing solid waste disposal sites (sanitary landfills) or for any other purpose that the authorized officer determines may include the disposal, placement, or release of any hazardous substance (e.g. wastewater treatment facility, shooting range, firefighting training facility, etc.). Existing leases

for solid waste disposal sites or other uses which the authorized officer determines may include the disposal, placement, or release of any hazardous substance should be converted to patents without a reversionary clause.

Withdrawals

A withdrawal is a formal land designation which has the effect of reserving land for a certain use. Withdrawals remove certain public lands from the operation of one or more of the public land laws, excluding lands from settlement, sale, location, or entry, including under the general mining laws and mineral leasing laws. Withdrawals are used to protect major Federal investments in facilities or other improvements, reserve lands for specific proposes and use, support national security, protect resources, and provide for public health and safety. Section 204(l) of FLPMA requires the review of existing withdrawals to determine if they are still serving the purposes for which they were made. If the withdrawals are no longer serving their intended purpose, they are to be revoked and the lands opened or partially opened to the uses that were previously prohibited. If withdrawals are determined to still be meeting the purposes for which they were made, they are recommended for extension for a specific term. While BLM can make recommendations to designate, revoke, or extend withdrawals, only the Secretary has the authority to actually take these actions.

Most of the existing withdrawals in Millard County involve Public Water Reserve withdrawals for the protection of spring resources. Past and ongoing withdrawals have reduced potential resource uses in withdrawn areas; however, compared to the total acreage available for various resource uses on public lands in the planning area, these effects are minimal.

FLPMA Section 204 gives the Secretary the authority to make, modify, extend, or revoke withdrawals, and mandates review of withdrawals (including reviewing continued need of existing Public Water Reserve withdrawals). Interior Department Policy (Departmental Manual 603) further requires that (1) all withdrawals be kept to a minimum, consistent with the demonstrated needs of the agency requesting the withdrawals, (2) lands shall be available for other public uses to the fullest extent possible, consistent with the purposes of the withdrawal, and (3) a current and continuing review of existing withdrawals shall be instituted. The BLM will manage the withdrawn lands in accordance with the objectives of the new RMP whether the withdrawals are continued, modified, or terminated.

Need for Management Change

1) Managers need to identify criteria, exceptions, and other stipulations associated with transmission reliability in designated corridors.

2) Millard County needs to maximize acquisitions under R&PP.

3) Millard County needs to increase the number of roadside parks and rest areas along its roads.

4) Millard County needs to reinforce its "No Net Loss of Private Land" Policy.

5) Managers need to administer new and existing withdrawals in accordance with federal law and on a case-by-case and site-specific basis.

6) Where withdrawals are revoked, lands need to be managed in accordance with the surrounding lands and the objectives of the Millard County Resource Management Plan.

7) Withdrawals need to be used a) as a last resort; b) consistent with Millard County's Resource Management Plan; and c) with concurrence of the Millard County Commission.

8) Managers need to coordinate use of other designations with the Millard County Commission prior to considering withdrawals.

Desired Future Conditions

Millard County Desires:

a) Managers identify criteria, exceptions, and other stipulations associated with transmission reliability in designated corridors.

b) Additional communication sites be authorized as technology and needs advance.

c) Managers cooperate with Millard County to maximize acquisitions under R&PP.

d) Millard County's No Net Loss of Private Land policy is recognized and followed.

e) New and existing withdrawals are administered in accordance with federal law and on a case-by-case and site-specific basis.

f) When withdrawals are revoked, lands are managed in accordance with Millard County's land use management plan.

g) Withdrawals are used a) only as a last resort; b) consistent with Millard County's Resource Management Plan; and c) with concurrence of the Millard County Commission.

h) Managers implement and coordinate use of other management tools prior to considering withdrawals.

i) Adequate communications sites are located to provide cellular telephone coverage on all County Class B roads.

j) Rights-of-way are sufficient to provide high speed internet to at least 90% of the homes and businesses in Millard County.

Findings, Policies, Goals, & Objectives

Goals & Objectives: The goals of Millard County's lands and realty program are to a) acquire federal and state lands to support the goals and objectives of other resource programs, b) provide for uses of public lands in accordance with applicable laws and regulations while protecting sensitive resources, and c) improve use of federal and state lands through land tenure adjustments.

Policy, Goal & Objective: Millard County encourages the placement of new ROWs within designated transportation and utility corridors, to the extent practicable.

Policy: When existing right-of-way or utility corridors are insufficient to meet infrastructure needs, additional rights-of-way or utility corridors shall be developed.

Policy: In coordination with Millard County, managers shall identify criteria, exceptions, and other stipulations associated with transmission reliability in designated corridors.

Finding & Policy: The location of communication sites is critical to attaining an optimum functioning telecommunication network and to the well-being of Millard County. Land managers play an important role in meeting consumer demands for broadband coverage by permitting telecommunication companies to locate their communication sites on mountaintops, ridges, and in and on other locations on public lands. Managers shall cooperate in locating telecommunication facilities at elevations that attain the most coverage for the consumers of digital products.

Policy: Land managers shall authorize additional communications sites to the greatest flexibility allowed by law and as technology and needs advance.

Policy: Millard County will increase efforts to acquire lands under the Recreation and Public Purposes Act. Land managers shall cooperate with Millard County to maximize lands acquired by the County under the R&PP Act.

Goal & Objective: Millard County will obtain a minimum of 3,200 acres per year under the Recreation and Public Purposes Act.

Finding & Policy: Millard County has insufficient roadside parks and rest areas adjacent to its road network. Millard County will increase its efforts to develop roadside parks and rest areas adjacent to its road network.

Goal & Objective: Millard County will obtain a minimum of 3 roadside parks and rest areas per year.

Policy: Millard County adopts a strict. Unless required by law, land managers shall not implement any action that decreases the acreage of private lands in Millard County. The County Commission may waive this policy on a case by case basis after determining loss of private land acreage is a benefit to the County and after public hearing.

Policy: Land managers and land use plans shall recognize and adopt the County's No Net Loss of Private Land policy to the maximum extent allowed by law.

Policy: Land managers shall minimize areas that have potential to be managed as Right-of-way avoidance and exclusion areas.

Finding & Policy: Exercising the Millard County Commission's constitutional police powers, Millard County finds federal lands prioritized by the County Commission for exchange or sale enhance public resource values, improve land ownership patterns, improve management capabilities for public and private lands, reduce conflicts, and provide the greatest opportunity for harmony between man and his environment. The County also finds the Commission's prioritization is necessary to protect and promote the health, safety, welfare, and well-being of the County, its residents, its visitors, its lands, and its resources. Unless specifically mandated by law, actions that are inconsistent with Millard County's prioritization are arbitrary, capricious and violate constitutional police powers.

Finding & Policy: Federal lands smaller than 320 contiguous acres are deemed to be small, isolated parcels and shall be prioritized for exchange or sale. Federal lands within one mile of municipal boundaries or developable private lands are deemed necessary for community expansion and economic development and shall be prioritized for exchange or sale. On a case by case basis, the Millard County Commission may designate additional lands that shall be prioritized for exchange or sale.

Finding & Policy: Unless specific resources dictate otherwise, BLM lands within 1 mile of municipal boundaries are identified as needed for community expansion and development.

Policy: Eligible lands located within one mile of municipal boundaries and BLM lands containing less than 320 contiguous acres shall be identified as suitable for exchange and/or Section 203 sales.

Policy: New and existing withdrawals shall be minimized and administered a) in accordance with existing law and b) in coordination with the Millard County Commission. Withdrawals shall be temporary and limited to the minimum amount of time possible.

Policy: When withdrawals are revoked, lands are managed in accordance with Millard County's land use management plan.

Finding & Policy: Withdrawals are deemed to have a negative impact on the County's health, safety, welfare and economic stability. Withdrawals shall be used a) only as a last resort; b) consistent with Millard County's Resource Management Plan; and c) with concurrence of the Millard County Commission.

Policy: Prior to any withdrawal, land managers shall implement and coordinate use of all other reasonable management tools. Prior to any withdrawal, land managers shall document in appropriate NEPA analysis efforts to implement and coordinate use of all other reasonable management tools.

Policy: Land managers shall ensure sufficient land is available to locate communication sites that are capable of providing cellular telephone coverage on all County Class B and Class D roads.

Policy: Land managers shall ensure sufficient land is available to locate communication sites that are capable of providing high speed internet to at least 90% of the County's homes and businesses.

Finding & Policy: Known land uses including but not limited to roads, airstrips, water developments, utilities, communication sites, and range improvements that have not been subject to a trespass claim prior to January 1, 2015 are deemed valid existing rights and will continue under current use until determined otherwise by the County Commission or a court of competent jurisdiction.

Finding & Policy: Where unresolved land tenure / authorization conflicts have existed between a federal agency and a) private entity, or b) the County since January 1, 2012 or earlier, the

conflict shall be resolved in favor of the private entity or County to the maximum extent allowed by law.

Policy: Federal agencies shall authorize agricultural permits for agricultural trespasses on public lands that occurred prior to January 1, 2020 until the trespass can be resolved and the lands under the agricultural permits can be disposed of or the agricultural use removed and the lands remediated.

Finding & Policy: Where federal agencies are unable to find suitable lands to achieve Millard County's 2% goal for open ATV use, additional lands will be obtained by Millard County under the R&PP Act to compensate for the shortfall.

Finding, Policy, Goal & Objective: Millard County finds and increasing need for land exchanges, acquisitions, easements, R&PP requests, indemnity selections, and potential sales in the County. The County also finds an increasing need for efficient processing of land tenure adjustment applications. Land managers shall efficiently process land tenure adjustment applications and shall complete processes in the shortest time possible. Land managers shall prioritize personnel and workload priorities to process land tenure adjustments within 6 months. Land managers shall prioritize R&PP applications for: community parks; firehouses; recreation areas for picnicking, camping, and hiking; schools; golf courses; public works buildings; and other public uses.

3.6 MINERALS AND MINING

Mineral development is an important land use within the federal, state and local multiple-use mandate in Millard County. In communities across the country, mining provides jobs, economic activity and important commodities that are essential to maintain a high quality of life. Mineral and mining resources are located throughout the County. Some resources located on state and privates lands have been developed to the extent economically and practically feasible. This section of the Resource Management Plan identifies Millard County's plans, programs and policies for non-energy mineral and mining resources. Energy-related resources are discussed in the Energy section of this plan.

Minerals on Federal lands are divided into three categories, each subject to different laws and regulations.

1. Locatable, which are subject to the Mining Law of 1872, as amended, include gold, silver, copper and other hard rock minerals.
2. Leasable minerals, such as coal and a host of other commodities, are subject to various Mineral Leasing Acts.
3. Saleable minerals, such as sand and gravel that are essential to construction and roadbuilding, are subject to the Materials Act of 1947, as amended.

Current Setting

Locatable Minerals Locatable minerals include both metallic minerals (gold, silver, lead, copper, zinc, nickel, etc.), non-metallic minerals (fluorspar, mica, certain limestones and gypsum, tantalum, heavy minerals in placer form, and gemstones) and certain uncommon variety minerals. Millard County has a rich history in locatable minerals and in lead, copper, tungsten, and manganese production. Millard County, Utah has more than 21,000 records of mining claims on public land managed by the Bureau of Land Management and 200 records of mineral deposits listed by the United States Geological Service. Currently there are almost 1500 mining claims on BLM lands in Millard County

Currently, base metals are being developed by approximately 33 producers in Millard County and records indicate as many as 100 past producers of gold, silver, lead, tungsten, and manganese. Other base and precious metal deposits may be present, and if found, could be developed depending on market conditions. Based on current market conditions and exploration activity, development of metals on a large scale is likely to continue during the planning horizon. Additionally, small-scale prospecting and development is also likely to take place.

Uranium is found in the House Range Mining District and in the Drum Mountains in Millard County. Uranium deposits are present at a grade sufficient to have a strong effect on the economics of an excavation project and may be viable as the only commodity mined. At the time deposits were surveyed, ore mineralization was observed in an outcrop, shallow pit or isolated drill hole, so detailed information on grade, tonnage and extent are not known.

Leasable Minerals Since 1920, the Federal Government has leased fuels and certain other minerals (43 CFR Parts 3000-3590). Today, minerals that are subject to lease include, but are not limited to: oil and gas, oil shale, geothermal resources, potash, sodium, potassium, sulfur, native asphalt, solid and semi-solid bitumen, bituminous rock, phosphate, and coal. In addition, some hardrock minerals, depending on their location, may be considered leasable. Federal agencies may also lease these minerals on certain private lands, provided the mineral rights are owned by the federal government. Most of the minerals leased under this program are used to make fertilizer or feed stock (mineral supplement for livestock) or have other industrial processes. The extent of non-energy leasable minerals in Millard County is currently being investigated. Petroleum, gas and geothermal resources are discussed in section 3.7 Energy Resources.

Salable Minerals Salable minerals or mineral materials are the largest group of mineral resources and are often termed industrial minerals. Salable minerals include sand and gravel, stone, and clay. The rights to industrial minerals on federal lands can be acquired by claim, lease or purchase from the federal agency. Manufacturing processes that consume these minerals, produce items that are sold to consumers, usually located within a reasonable transportation distance of the mine site.

There are several mineral material pits authorized within the County. Many of the pits are available to the public, while others are only available for Federal Highway Administration or governmental use.

Sand and gravel have been some of the most significant mineral commodities mined from the area. The single greatest use has been for construction activities including highways, and most mining has been near existing roads. With the creation of additional layers of federal regulation, future sand and gravel production from the County will be focused even more on limited areas where material deposits do not conflict with other uses.

The development potential for sand and gravel deposits in the County is rated high in areas of past or present sand and gravel extraction, as well as where the proper host formations are found within three miles of a paved road. Areas of high sand and gravel occurrence potential are primarily found along larger alluvial valleys throughout the County. The areas outside the larger valleys also have sand and gravel resources, and sand and gravel development potential is moderate where the host formations are more than three miles from a paved road, and low where the host formations are administratively or logistically restricted from future development. Exploration and development activities for sand and gravel are expected to continue for the next 15 years at a level that increases slightly from past rates. Most of the activity would be in the areas of high development potential, but some would also occur farther from paved roads to allow maintenance of unpaved county roads.

Building stone is used for rip-rap, building and for the support and ornamentation of buildings. This includes stone used for facades, counter tops and other decorative uses. With the advent of concrete foundations, the use of stone for foundations is infrequent. The market for various stones depends on architectural style and interior decor fashions. Early settlers used field stone and quarry stone mostly for home and building construction. A small number of building/dimension stone quarries remain active, and there are several that are inactive or abandoned. In addition, there are a small number of decorative stone quarries, as well as quarries for rip-rap. The development potential for stone is rated high at past and present quarry sites and moderate outside these areas where the proper host formations occur. Stone exploration or development activity is expected to continue during the next 15 years at rates slightly higher than historic activity levels.

The term clay is both a particle size term and a group of crystalline minerals. As a rock type it is a very fine grained sedimentary rock where most of the grains are composed of the crystalline minerals also called clays and other detrital grains less than 4 microns in size. Clay behaves plastically when wet and has an amazing variety of uses. The most common types are two-layer clay minerals called the kaolin group and three-layer type called the montmorillonite group. These clays have swelling characteristics when wet, and are used to line water impoundments, and in oil well drilling muds. Clay deposits in Millard County are located in formations on the east side and center of the County.

Need for Management Change

1) Mineral and mining resources need to be recognized as valuable components of multiple-use management and as an appropriate use of federal lands.

2) Mineral and mining resources need to be responsibly developed for the benefit of man.

3) Managers need to support community development by facilitating use of mineral and mining resources.

4) Mineral and mining resources located on all lands in Millard County need to be available for development, including in WSAs.

5) Additional sand, gravel and construction material pits need to be developed near communities.

6) Additional sand, gravel and construction material need to be made available in remote locations for watershed, facility and road maintenance.

Desired Future Conditions

Millard County Desires:

a) Mineral and mining development is recognized and advanced as a valuable component of multiple-use management and community development.

b) Mineral and mining resources are developed at an expanded rate.

c) Mineral and mining resources are optimized to support community sustainability and stability.

d) Mineral and mining resources located on all lands in Millard County are available for development to the maximum extent allowed by law.

e) Additional material pits are developed near communities.

f) Additional material pits are developed for road maintenance, erosion control, stream stabilization and other activities that promote productive and enjoyable harmony between man and his environment.

g) Lands that have not been identified as Wilderness Study Areas by BLM as part of the 1991 submission to Congress are excluded from wilderness management and made available for mineral and mining extraction.

h) Land identified as Wilderness Study Areas by BLM as part of the 1991 submission to Congress that are not identified in Millard County's land use management plan as suitable for wilderness designation be released from further wilderness consideration and made available for

mineral and mining extraction.

Findings, Policies, Goals & Objectives

Goal & Objective: Manage mineral and mining resources to:
a) prevent undue and unnecessary degradation; and
b) optimize use of the resources without compromising the long-term health and diversity of lands in the County.

Goal & Objective: Manage mineral and mining resources to provide minerals and industries needed for community stability and economic purposes while minimizing impacts to other resources.

Policy: Millard County adopts the principles expressed in Section 63J-8-104 of the Utah Code regarding mineral and mining on federal land. Federal land managers shall achieve and maintain at the highest reasonably sustainable levels, a continuing yield of mineral and mining resources in those subject lands with economically recoverable amounts of such resources.

Finding & Policy: A vibrant mineral and mining industry is an important component of a healthy, sustainable and stable economy and the communities and families it supports.

Goal & Objective: Manage mineral and mining resources to provide for the responsible use and prosperity of man and local communities.

Finding: Increasing restrictions on the development of mineral and mining resources over the last few decades has had a negative impact on Millard County's economic welfare, community stability and sustainability.

Policy, Goal & Objective: Managers shall encourage and facilitate development of mineral and mining resources by private and governmental industries in a manner that satisfies national, state and local needs and provides for economically and environmentally sound exploration, extraction and reclamation.

Finding: Increasing restrictions on the development of mineral and mining resources over the last few decades has had a negative impact on Millard County's economic welfare, community stability and sustainability.

Policy, Goal & Objective: Managers shall encourage and facilitate development of mineral and mining resources by private and governmental industries in a manner that satisfies national, state

and local needs and provides for economically and environmentally sound exploration, extraction and reclamation.

Policy: Millard County supports implementation of reasonable Best Management Practices for exploration, extraction and reclamation of mineral and mining projects.

Policy: Where surface occupancy would be undesirable (cemeteries, culinary water sources, landfills, NRHP sites, developed recreation sites, etc.), manage for optimal leasing with no surface occupancy stipulations.

Policy: Millard County will Coordinate and work cooperatively with federal state and local agencies to maximize responsible, environmentally sound development of mineral and mining resources.

Policy: Land managers shall reconsider mineral and mining operations for lands that are designated as No Surface Occupancy or closed when:
a) the circumstances or relative resource values have changed;
b) less restrictive requirements could be developed to protect resources of concern;
c) operations could be conducted without causing unacceptable impacts to resources of concern;
d) projects are proposed that provide at least 5 full time jobs for a period of not less than 3 years;
e) during the next regular planning cycle; or
f) prior to the end fiscal year 2025, whichever occurs first.

Policy: Consistent with Millard County's Visual Resource Management Plan, managers shall not consider surface disturbing mineral and mining operations in VRM Class I areas. VRM Class II, III, and IV areas shall be available for surface disturbing mineral and mining operations with appropriate BMPs. Where questions arise regarding allowable activities in VRM Class II, III, and IV areas, managers shall Coordinate with Millard County to assure consistency to the maximum extent allowed by law.

Policy, Goal & Objective: Opportunities shall be maintained to access mineral and energy resources to sustain viable rural economies and to contribute to the health, welfare and economic growth of the region, state and nation.

Policy: Lands disturbed by mineral and energy activities shall be reclaimed using the best reasonable techniques and principles and returned to other productive uses.

Finding & Policy: Mineral and mining activities occur on a very small percentage of the land, generally less than 3%. Mineral and mining exploration, development, extraction and reclamation are compatible with other uses and can occur concurrently or sequentially with such uses.

Policy: Mineral and mining activities will be prioritized outside special status species habitat. When mineral and mining activities are proposed in special status species habitat, priority will be given to development in non/low value habitat first and then in the least suitable habitat and will implement avoid, minimize, mitigate protocols.

Policy: Surface disturbing mineral and mining activities in special status species habitat shall comply with the Millard County conservation plan for the species of concern. If no County plan has been adopted for the particular species of concern, land managers shall coordinate species conservation plans and habitat evaluation guides with Millard County as part of environmental analysis for the proposed mineral/mining activity.

Finding & Policy: Millard County has sufficient areas managed for primitive recreation in existing parks, monuments, recreation areas, and designated wilderness. Managers shall prioritize exploration, development, extraction and reclamation of mineral and mining resources over wilderness values and primitive recreation unless specifically mandated otherwise by federal law.

Policy: Mineral and mining exploration, development and extraction shall be allowed in Class II and Class III pinyon/juniper woodlands with a median age less than 200 years to the maximum extent allowed by law. Consistent with ecologic site descriptions, reclamation activities in such areas may restore lands to desired future conditions consistent with management objectives.

Finding and Policy: No Surface Occupancy restrictions are not suitable for special status species habitat where the Wildlife Habitat Evaluation Guide score is less than 70% of the maximum, unless approved by the County Commission. Mineral and mining projects that include reclamation anticipated to improve a Wildlife Habitat Evaluation Guide score at least 10% are found to be a net benefit to the species of concern.

Policy: Management of the County's mineral and mining resources shall be consistent with the County's Resource Management Plan to the maximum extent allowed by law.

Policy: Land shall not be managed for wilderness characteristics if they contain mining and mineral resources that have the potential of being developed prior to the subsequent resource management planning event or 25 years, whichever is longer.

Policy: Areas shall not be closed to locatable mineral entry, new mineral material sales, solid mineral leasing, and similar activities without consultation, cooperation and Coordination with the County Commission.

Policy: The least restrictive terms and conditions allowed by law shall apply to exploration, development, extraction, and reclamation of mineral and mining resources in Millard County.

Policy: All federal land management plans with mineral/mining development provisions

applicable to lands in the County, shall include an environmental analysis that clearly discloses:
a) the planning agency has considered and evaluated the mineral and mining potential in all areas of the planning area as if the areas were open to mineral development under standard lease agreements;
b) the planning agency has evaluated any management plan prescription for its impact on the areas baseline mineral and mining potential;
c) development provisions do not restrict access to public lands for mineral exploration and development;
d) the planning agency has analyzed all proposed mineral/mining stipulations and considered adopting the least restrictive necessary to prevent or reduce damage to other significant resource values; and
e) the planning agency evaluated mineral/mining restrictions to determine whether to waive, modify or make exceptions to the restrictions on the basis that they are no longer necessary or effective.

References

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https://geology.utah.gov/resources/data-databases/utah-mining-districts/

3.7 ENERGY

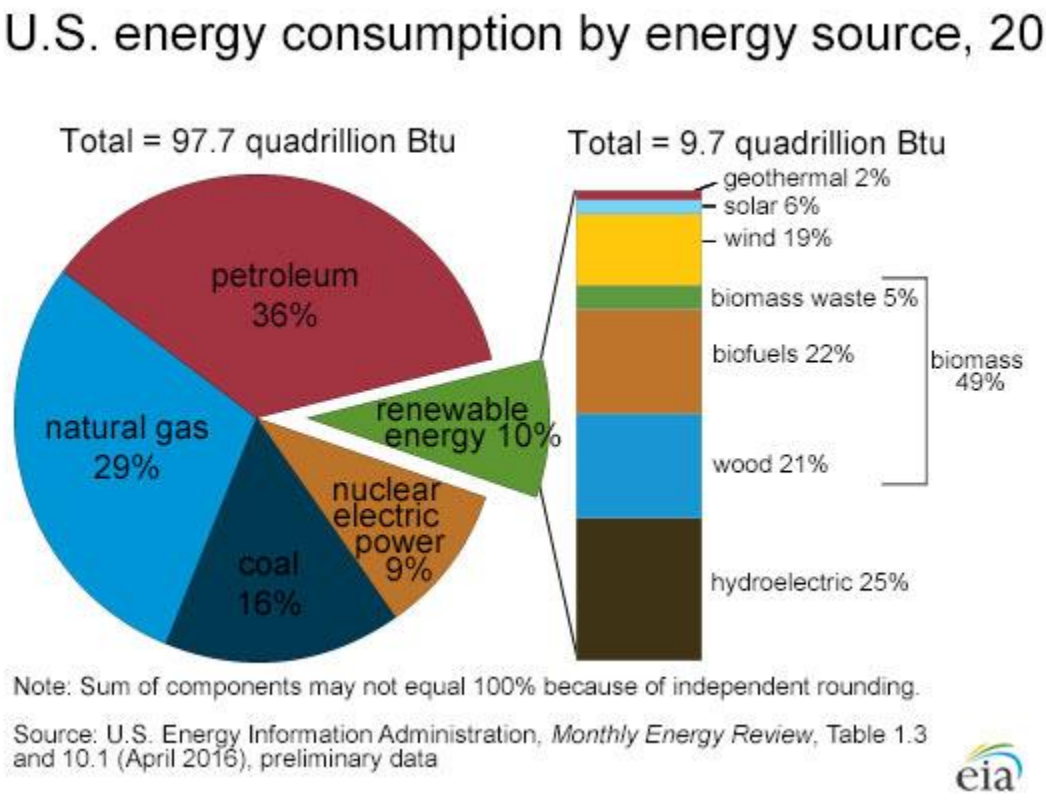
Introduction

Energy is the ability to do work and comes is various forms. Energy resources can be divided into two groups: non-renewable – energy resources that cannot be easily replenished; and renewable – energy resources that can be easily replenished. Renewable and non-renewable energy sources can be used as primary energy sources to produce useful energy such as fuel for vehicles and heat or used to produce secondary energy sources such as electricity.

When people use electricity in their homes, the electrical power was probably generated from burning coal or natural gas, a nuclear reaction, or a hydroelectric plant on a river, to name a few possible energy sources. The gasoline people use to fuel their cars is made from crude oil (non-renewable energy) and may contain a biofuel (renewable energy) like ethanol, which is made from processed corn.

Current Setting

The chart below shows energy consumption by the various energy sources used in the United States in 2015. Non-renewable energy sources accounted for about 90% of all energy consumption. Biomass, which includes wood, biofuels, and biomass waste, is the largest renewable energy source, and it accounted for about half of all renewable energy and about 5% of total U.S. energy consumption.



Need for Management Change

1) Non-renewable energy resources need to be responsibly developed while renewable energy technology advances to the point of providing for the energy needs of the nation and Millard County.

2) Land managers need to permit, to the maximum extent allowed by law, energy development projects while implementing technologic advances, best management practices and reasonable reclamation.

3) Responsible development and production of energy resources need to be prioritized over conservation of lands for primitive recreation.

4) Energy development and extraction industries need to be revitalized and expanded in Millard County.

5) Where necessary, federal, state and local laws and designations need to be modified to promote reasonable exploration, development and production of energy resources in Millard County.

6) Where compatible, existing disturbances - including roads, paths, ways and trails identified in federal, state and local documents, plans and maps – need to be prioritized and reserved for potential energy exploration, development, production, and infrastructure location.

7) Federal agencies need to include at least one alternative identifying, analyzing and disclosing maximum energy development in all NEPA documents considering energy resources.

8) Land managers need to include a detailed socio-economic analysis, including at least one alternative considering maximum energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis will clearly disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

9) Where necessary, existing designations need to be revised to allow responsible development and production of renewable and non-renewable energy resources.

Desired Future Conditions

Millard County desires:

a) Responsible non-renewable energy development is optimized while renewable energy technology advances to the point of providing for the energy needs of the nation and Millard County.

b) Land managers permit, to the maximum extent allowed by law, energy development projects while implementing technologic advances, best management practices and reasonable reclamation which achieve a productive and enjoyable harmony between man and his environment.

c) Responsible development and production of energy resources are prioritized over conservation of lands for primitive recreation.

d) Energy extraction industries are developed, revitalized and expanded in Millard County.

e) Federal, state and local laws are modified to promote reasonable exploration, development and production of energy resources in Millard County.

f) Where compatible, existing disturbances - including roads, paths, ways and trails identified in federal, state and local documents, plans and maps – are prioritized and reserved for potential energy exploration, development, production, and infrastructure location.

g) Federal agencies include at least one alternative identifying, analyzing and disclosing maximum energy development in all NEPA documents considering energy resources.

h) Land managers include a detailed socio-economic analysis, including at least one alternative considering maximum energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis will clearly disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

i) Where necessary, existing designations (for example, the Grand Staircase-Escalante National Monument) are revised to allow responsible development and production of energy resources.

Findings, Policies, Goals & Objectives

Finding & Policy: Energy resources are located in limited, finite areas and shall be permitted for exploration and development to the maximum extent allowed by law.

Policy: To the maximum extent allowed by law, land managers shall optimize non-renewable energy exploration and development while renewable energy advances to the point that it can provide for the nation's and Millard County's energy needs.

Policy: To the maximum extent allowed by law, managers shall permit responsible energy development projects. Technologic advances, best management practices and reasonable reclamation will be implemented to achieve a productive and enjoyable harmony between man and his environment.

Finding & Policy: Adequate opportunities for primitive recreation exist in locations that do not contain energy resources or where exploration and development are prohibited. In Millard County, responsible development and production of energy resources are prioritized over conservation of lands for primitive recreation, unless specifically prohibited by law.

Policy: Millard County supports modification of federal, state and local laws to facilitate responsible exploration, development and production of energy resources in Millard County.

Finding & Policy: Where compatible, existing disturbances - including roads, paths, ways and trails identified in federal, state and local documents, plans and maps – are ideal locations for potential energy exploration, development, production, and infrastructure location. Land managers shall prioritized and optimize existing disturbances for potential energy exploration, development, production, and infrastructure location

Policy: In all NEPA documents considering energy resources, federal agencies shall include at least one alternative identifying, analyzing and disclosing maximum potential energy development.

Policy: Land managers shall include a detailed socio-economic analysis, including at least one alternative considering maximum energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis will clearly disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

3.7.1 Non-renewable Energy Resources

Most of the energy consumed in the United States is from non-renewable energy sources. Non-renewable energy resources include coal, petroleum products, hydrocarbon gas liquids, natural gas, and nuclear materials.

Crude oil, natural gas, and coal are called fossil fuels because they were formed over millions of years by the action of heat from the earth's core and pressure from rock and soil on the remains (or fossils) of dead plants and creatures like microscopic diatoms. Most of the petroleum products consumed in the United States are made from crude oil, but petroleum liquids can also be made from natural gas and coal.

Millard County contains limited non-renewable energy resources. There are no known developable coal, oil, or natural gas reserves in the County.

Nuclear energy is produced from uranium, a non-renewable energy source whose atoms are split (through a process called nuclear fission) to create heat and, eventually, electricity. Uranium is found in the House Range Mining District in Millard County. Uranium deposits are present at a grade sufficient to have a strong effect on the economics of an excavation project and may be viable as the only commodity mined. At the time deposits were surveyed, ore mineralization was observed in an outcrop, shallow pit or isolated drill hole, so detailed information on grade, tonnage and extent are not known.

Need for Management Change

1) Non-renewable energy resources need to be responsibly developed while including appropriate best management practices and reasonable reclamation.

2) Land managers need to permit, to the maximum extent allowed by law, non-renewable energy development projects while implementing technologic advances, best management practices and reasonable reclamation which achieve a productive and enjoyable harmony between man and his environment.

3) Responsible development and production of non-renewable energy resources including best management practices and reasonable reclamation need to be prioritized over conservation of lands for primitive recreation.

4) Non-renewable energy development and extraction industries need to be identified in Millard County.

5) Where necessary, federal, state and local laws need to be modified to promote reasonable exploration, development and production of non-renewable energy resources in Millard County.

6) Where compatible, existing disturbances - including roads, paths, ways, trails, chainings, seedings, and material pits identified in federal, state and local documents, plans and maps – need to be prioritized and reserved for potential non-renewable energy exploration, development, production, and infrastructure location.

7) Land managers need to include at least one alternative identifying, analyzing and disclosing maximum non-renewable energy development in all NEPA documents considering energy resources.

8) Land managers need to include a detailed socio-economic analysis, including at least one alternative considering maximum non-renewable energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis needs to clearly disclose the impacts non-renewable energy development would have on jobs, wages, family incomes, community stability and other pertinent factors.

9) Disturbances created by non-renewable energy development need to be recognized as no more intrusive than disturbances created by renewable energy development. Both disturbances need to be appropriately avoided, minimized and/or mitigated.

Desired Future Conditions

Millard County desires:

a) Responsible non-renewable energy development is optimized while renewable energy technology advances to the point of providing for the energy needs of the nation and Millard County.

b) Land managers promote, to the maximum extent allowed by law, non-renewable energy development projects while implementing technologic advances, best management practices and reasonable reclamation which achieve a productive and enjoyable harmony between man and his environment.

c) Responsible development and production of non-renewable energy resources are prioritized over conservation of lands for primitive recreation.

d) Non-renewable energy extraction industries are developed in Millard County.

e) Federal, state and local laws are modified to promote reasonable exploration, development and production of non-renewable energy resources in Millard County.

f) Where compatible, existing disturbances - including roads, paths, ways, trails, chainings, seedings, and material pits identified in federal, state and local documents, plans and maps – are prioritized and reserved for potential non-renewable energy exploration, development, production, and infrastructure location.

g) Federal agencies include at least one alternative identifying, analyzing and disclosing maximum non-renewable energy development in all NEPA documents considering energy resources.

h) Land managers include a detailed socio-economic analysis, including at least one alternative considering maximum non-renewable energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis will clearly disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

Findings, Policies, Goals & Objectives

Finding: Since the mid-1800s, development of non-renewable energy resources has played a pivotal role in the welfare and prosperity of the American nation. Renewable energy resources are not currently capable of replacing non-renewable energy resources and will not be during the foreseeable life of this plan.

Goal: Manage and provide opportunities for maximum exploration, development and production of non-renewable energy resources and uses in Millard County.

Goal & Policy: Consistent with long term ecologic health, allow non-renewable energy exploration, development and production with as few restrictions as possible.

Goal & Objective: Establish and implement authorization policies and design/mitigation features applicable to non-renewable energy exploration, development and production.

Goal & Policy: Identify and minimize lands excluded from non-renewable energy exploration, development and production.

Goal & Policy: Identify lands suitable and prioritized for non-renewable energy exploration, development and production.

Objective: Define areas with development potential for non-renewable energy and develop management strategies which maximize exploration, development and production while considering other resource values. Designate non-renewable energy zones as needed.

Objective: In cooperation with federal agencies, support scientific research of non-renewable energy development and how impacts on other resources may be avoided, minimized or mitigated.

Objective: Provide for maximum use of non-renewable energy resources in consideration of ecosystem health while achieving a productive and enjoyable harmony between man and his environment.

Policy: Land managers shall consider at least one alternative:
a) expanding non-renewable energy development and production above current levels and
b) expanding non-renewable energy development and production to at least 70% of potential in all NEPA actions considering energy resources.

Finding & Policy: Non-renewable energy resources are located in limited, finite areas and shall be promoted and permitted for exploration and development to the maximum extent allowed by law.

Policy: To the maximum extent allowed by law, land managers shall optimize non-renewable energy exploration and development while renewable energy advances to the point that it can provide for the nation's and Millard County's energy needs. Exploration, development and production of non-renewable energy resources shall be prioritized, promoted and encouraged until 85% of the County's energy needs, 80% of the State's energy needs or 75% of the nation's energy needs are supplied by renewable energy resources.

Policy: To the maximum extent allowed by law, managers shall prioritize and permit responsible non-renewable energy development projects. Technologic advances, best management practices and reasonable reclamation shall be implemented to achieve a productive and enjoyable harmony between man and his environment. For NEPA actions considering energy resources, comparative site specific and cumulative analysis between non-renewable and renewable energy resources shall be disclosed identifying potential energy production, production reliability, area of disturbance, life of resource, costs, jobs provided, average and median salaries, condition of reclaimed area, maintenance requirements, royalty payments, and other pertinent information.

Finding & Policy: Adequate opportunities for primitive recreation exist in locations that do not contain energy resources or where exploration and development are prohibited. In Millard

County, responsible development and production of energy resources are prioritized over conservation of lands for primitive recreation, unless prohibited by law.

Finding & Policy: Where surface disturbance associated with non-renewable energy production is less than 40 acres or 3% of lands managed for wilderness characteristics, whichever is greater, energy related disturbance is substantially unnoticeable.

Policy: Millard County supports modification of federal, state and local laws to facilitate responsible exploration, development and production of non-renewable energy resources in Millard County.

Finding & Policy: Where compatible, existing disturbances - including roads, paths, ways, trails, chainings, seedings, and material pits identified in federal, state and local documents, plans and maps – are favorable locations for potential energy exploration, development, production, and infrastructure location. Land managers shall prioritized and optimize existing disturbances for potential energy exploration, development, production, and infrastructure location

Policy: In all NEPA documents considering energy resources, federal agencies shall include at least one alternative identifying, analyzing and disclosing maximum potential energy development.

Policy: Land managers shall include a detailed socio-economic analysis, including at least one alternative considering maximum energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis will clearly disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

Finding & Policy: The Alton Coal Project in Kane County, Utah demonstrates non-renewable energy projects can enhance conservation and recovery of special status species. When analyzing energy impacts, land managers shall include a detailed, comparative analysis of impacts proposed alternatives have on conservation and recovery of special status species in NEPA documents. The detailed comparative analysis will clearly disclose proposed mitigation and the long term impacts energy development will have on WHEG values, habitat conditions, mitigated acres, composition, health and vigor of vegetative communities, conformance with local species conservation plans, and other pertinent factors.

Policy: Non-renewable energy development in priority habitat shall conform to Millard County's recovery and conservation plan for targeted species, unless approved otherwise by the County Commission.

Policy: Surface disturbance and surface occupancy restrictions for non-renewable energy resources shall be based on site specific WHEG evaluations for targeted wildlife species. Where WHEG values are not available, land managers shall work in cooperation and coordination with the County to develop WHEG evaluation criteria as part of the environmental analysis for proposed non-renewable energy projects.

Finding & Policy: Critical/crucial habitat are areas that are decisive to the success or failure of a targeted species. When considering non-renewable energy projects, areas shall not be defined as critical or crucial unless disturbance of the area would result in the loss of at least 70% of the County's, 40% of the state's or 20% of the nation's targeted species population. When critical or crucial habitats are considered in a non-renewable energy NEPA analysis, land managers shall disclose total population of the targeted species in the County, the percentage of targeted species individuals lost as a result of the various alternatives, and qualitative analysis of the impact loss of the individuals has on populations of the targeted species in the County, region and state.

Finding & Policy: Substantial habitat are areas that are of considerable/significant importance to a targeted species. When considering non-renewable energy projects, areas shall not be defined as substantial unless disturbance of the area would result in significant negative impacts to at least 50% of the County's targeted species population. When substantial habitats are considered in a non-renewable energy NEPA analysis, land managers shall disclose total population of the targeted species in the County, the percentage of targeted species individuals significantly impacted as a result of the various alternatives, and qualitative analysis of the impacts on populations of the targeted species in the County, region and state.

3.7.2 Renewable Energy Resources

Unlike fossil fuels and other non-renewable resources, which are finite in the short term, renewable energy sources regenerate relatively quickly. There are five commonly used renewable energy sources: hydropower; geothermal; wind; solar; and biomass (including wood, vegetative waste, municipal solid waste, landfill gas, ethanol and biodiesel).

Until the mid-1800s, wood was the primary – if not sole - source of energy consumption. Beginning in the second half of the 19th century, non-renewable energy sources (coal, petroleum and natural gas) dominated energy sources in the United States. Energy sources were augmented by the development of hydropower near 1900 and have been expanded to include nuclear, wind, solar, and biomass components during the last three decades. Current energy in the US is still

dominated by non-renewable sources; and renewable sources only generate 10% of the nation's energy consumption.

Hydropower is the largest renewable energy source for electricity generation in the United States. In 2015, hydropower accounted for about 6% of total U.S. electricity generation and 46% of electricity generation from all renewables. Because the source of hydroelectric power is water, hydroelectric power plants must generally be located on or near a reliable water source.

Geothermal energy is a renewable energy source that is continuously produced inside the earth. The word geothermal comes from the Greek words *geo* (earth) and *therme* (heat). The slow decay of radioactive particles in the earth's core, a process that happens in all rocks, produces geothermal energy. The earth's core is approximately as hot as the sun's surface, and energy developers can use this heat as steam or as hot water to heat buildings or to generate electricity.

Societies around the world use geothermal energy to heat their homes and to produce electricity by drilling deep wells and pumping the hot underground water or steam to the surface. Entities can also use the stable temperatures near the surface of the earth to heat and cool buildings.

The Basin and Range Province of western Utah is noted for numerous north-south oriented, fault-tilted mountain ranges separated by intervening, broad, sediment-filled basins. The mountain ranges are typically 12 to 31 miles apart, 28 to 50 miles long, and bounded on one, sometimes two, sides by high-angle faults. Typical ranges are asymmetric in cross section, having a steep slope on one side and a gentle slope on the other.

The Sevier Thermal Area (STA) is a region of southwestern Utah where most of Utah's known moderate- and high-temperature (>90°C) hydrothermal-geothermal systems occur. The STA covers a portion of the eastern Basin and Range Province, and part of the Basin and Range-Colorado Plateau transition zone. The geology of this region, which encompasses all of the Sevier, Black Rock, and Escalante Deserts of southwestern Utah, includes abundant faults, plutonic and volcanic rocks, basalt and rhyolite, high regional heat flow, and zones of active seismicity.

The STA is centered on the Roosevelt Hot Springs and Cove Fort-Sulphurdale Known Geothermal Resource Areas (KGRAs), where geothermal power development began some 20 years ago. Other developments in the region include a hot spring resort at the Monroe-Joseph area, commercial greenhouses at Newcastle, and recent geothermal power generation at Thermo Hot Springs. The Meadow-Hatton KGRA is also in Millard County but is currently undeveloped and the Escalante-Sevier-Black Rock area has not been fully discovered. Millard County makes up the bulk of the Sevier Thermal Area, and estimates indicate County resources could provide as much as 1500 MWe. Utah Geological Survey identified the area near and around Clear Lake near Pahvant Butte as a high potential geothermal site.

The terms "wind energy" or "wind power" describe the process by which the wind is used to generate mechanical power or electricity. Wind turbines convert the kinetic energy in the wind into mechanical power. This mechanical power can be used for specific tasks (such as grinding grain or pumping water); or a generator can convert this mechanical power into electricity to power homes, businesses, schools, and the like.

Wind energy is very abundant in many parts of the United States and at various locations in the County. Wind resources are characterized by wind-power density classes, ranging from class 1 (the lowest) to class 7 (the highest). Good wind resources (e.g., class 3 and above, which have an average annual wind speed of at least 13 miles per hour) are found in many locations. Wind speed is a critical feature of wind resources, because the energy in wind is proportional to the cube of the wind speed. In other words, a stronger wind means a more power.

Even though the cost of wind power has decreased dramatically in the past 10 years, the technology requires a higher initial investment than fossil-fueled generators. Roughly 80% of the cost is the machinery, with the balance being site preparation and installation. When compared to other energy producing methods, life cycle costs for wind related energy become increasingly competitive with the length of the life cycle because there is no fuel to purchase and operating expenses are minimal. Wind power plants have few emissions that can impact the environment compared to fossil fuel power plants. However, there is some concern over the noise produced by the rotor blades, aesthetic/visual impacts, and bird and bat mortality from rotor collisions. Proper siting of wind plants and technologic advances can possibly mitigate negative impacts.

The major challenge to using wind as a source of power is wind is intermittent and does not always blow when electricity is needed. Wind cannot be stored (although wind-generated electricity can be stored, if batteries are used), and not all winds can be harnessed to meet the timing of electricity demands. Further, suitable wind sites are often located in remote locations far from areas of electric power demand or transmission. Additionally, wind resource development may compete with other land uses that may be more valued than generation of electricity. However, wind turbines can be located on land that is also used for other purposes, including grazing and are better suited for multiple-use management than solar arrays.

The Utah Renewable Energy Zones Task Force Phase I Report identified four potential areas for wind development in Millard County: Sevier Desert, Black Rock, Milford North, and Garrison areas. All but the Sevier Desert area are considered high confidence sites. Combined, the areas are estimated to have a generation potential of more than 600 MW.

Another form of renewable energy is available from the sun. The sun has produced energy for millions of years and is the ultimate source for most of the energy sources and fuels that we use today. The sun's rays (solar radiation) have been used for thousands of years for warmth and to dry meat, fruit, and grains. Over time, devices and technology have been developed to collect solar energy for heat and to convert it into electricity.

A variety of technologies are presently used for collecting and converting solar radiation into useful heat energy for a variety of purposes. Currently solar energy is used to a) heat water for homes, buildings and pools; b) heat the inside of homes and other buildings; and c) heat fluids to high temperatures to generate electricity in solar power plants.

Solar photovoltaic (PV) devices, or solar cells, change sunlight directly into electricity. Small PV cells can power calculators, watches, and other small electronic devices. Arrangements of many solar cells in PV panels and arrangements of multiple PV panels in PV arrays can produce electricity for an entire house. Some PV power plants have large arrays that cover hundreds of acres and produce electricity for thousands of homes.

Two main benefits of solar energy are a) solar systems do not produce air emissions and b) individual solar systems can be placed on buildings, having minimal impact on land surface activities. However, the amount of sunlight that reaches the earth's surface is not constant and varies depending on location, time of day, season, and weather conditions. Additionally, the amount of sunlight reaching a square foot of the earth's surface is relatively small, so a large surface area is necessary to absorb or collect a useful amount of energy for public use.

The Utah Renewable Energy Zones Task Force Phase I Report indicated some of the most extensive potential solar energy zones in the state are located in Millard County. Comparatively speaking, Millard County's solar resource development potential appears to be more viable than resources located in most of Utah.

Energy resources are also found in the County's biomass reserves. Biomass includes wood, vegetative waste, municipal solid waste, landfill gas, ethanol and biodiesel. Biomass is organic material that comes from plants and animals, and contains stored energy from the sun. When biomass is burned, the chemical energy in biomass is released as heat. Biomass can be burned directly or converted to liquid biofuels and biogas that are burned as fuels

Wood is the largest biomass energy resource; and the most common technique for generating power is the use of direct-fired systems, which burn bioenergy feedstocks directly to produce steam. This steam drives a turbine, which turns a generator that converts the power into electricity.

In Millard County, woody biomass is primarily composed of the wood residues of forest restoration projects designed to improve wildlife habitat, increase forest and rangeland health, and reduce the risks of wildfire. Restoration projects consist primarily of land treatments, which thin and clear overstocked forest and woodland stands, removing understory, smaller diameter trees, and brush. The by-product of thinning and clearing is biomass. Woody biomass is primarily composed of restoration residues and smaller diameter trees and brush from forestry, fuels, and rangeland treatments.

Not all vegetation types have the potential for bioenergy production. In the Millard County, the dominant forested species and the primary source of woody biomass with the potential for energy production are the Great Basin and Colorado Plateau pinyon-juniper woodlands.

Biomass projects on federally administered lands are often associated with stewardship contracts. The stewardship program allows federal agencies to enter into long-term contracts with local small businesses, communities, and non-profit organizations to thin vegetated areas while improving forest, woodland, and rangeland health, fish and wildlife habitat, and reduce the risk of wildfires.

Estimates of existing biomass resources on federal lands in the planning area are expressed in tons per acre (TPA) of biomass yield. Potential biomass yield ranges from less than 12 TPA to more than 44 TPA. Biomass levels are divided into three categories of resource potential: low (0 to 5 TPA), medium (5 to 20 TPA), and high (more than 20 TPA). A detailed assessment of biomass resource potential for Millard County has not been prepared. However, forested areas and Class II and Class III pinyon/juniper woodlands are likely to have high potential for biomass energy.

Approximately 8,000 dry tons of biomass are necessary to produce 1 MW of power. However, the theoretical maximum annual energy capacity from biomass resources could be substantially less depending on a number of factors, including stand density, exclusion/avoidance areas, or adjustments resulting from technical, economic, or market constraints. Drivers of biomass energy development in the area include accessibility of biomass resources, state and federal subsidies, increased state and national population and demand for additional energy, shifts in technology, shift in renewable/non-renewable resource reliance, and reduced costs for biomass energy development.

Use of biomass from federally and state administered lands is expected to increase as new bioenergy facilities come online and technology improves. Most of the biomass resource will be derived from fuel reduction projects and from pinyon-juniper woodlands cleared during vegetation treatments. Other trees and smaller woody species could also be used if they are being removed for habitat, forest health, development, or biodiversity improvements.

Technical, economic, or market constraints that could affect the siting and development of biomass projects differ from those for wind, solar, and geothermal energy. These factors are site specific and will vary with each individual project and may include biomass facility efficiency, hauling distances, steep terrain, and soil compaction/erosion impacts.

Need for Management Change

1) Renewable energy resources need to be responsibly developed while including appropriate best management practices and reasonable reclamation.

2) Land managers need to permit renewable energy development projects while implementing technologic advances, best management practices and reasonable reclamation which achieve a productive and enjoyable harmony between man and his environment.

3) Responsible development and production of renewable energy resources including best management practices and reasonable reclamation shall not be prioritized over conservation of lands for passive scientific and physical research and/or primitive recreation.

4) Renewable energy development and extraction industries need to be developed and expanded in Millard County.

5) Where necessary, federal, state and local laws need to be modified to promote reasonable exploration, development and production of renewable energy resources in Millard County.

6) Existing disturbances - including roads, paths, ways, trails, chainings, seedings, and material pits identified in federal, state and local documents, plans and maps – need to be avoided when potential renewable energy exploration, development, production, and infrastructure are located, unless the energy development is compatible with the existing disturbance.

7) Scientific and physical research shall not be prioritized over livestock grazing, primitive recreation, or development and production of resources on affected lands.

8) Federal agencies need to include at least one alternative identifying, analyzing and disclosing maximum renewable energy development in all NEPA documents considering energy resources.

9) Land managers need to include a detailed socio-economic analysis, including at least one alternative considering maximum renewable energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis needs to clearly disclose the impacts

renewable energy development would have on jobs, wages, family incomes, community stability and other pertinent factors.

10) Disturbances created by renewable energy development need to be recognized as no less intrusive than disturbances created by non-renewable energy development. Both disturbances need to be appropriately avoided, minimized and/or mitigated.

11) Biomass technology needs to be combined with reduction of Class II and Class III pinyon/juniper woodlands and excessive forest fuel loading to optimize energy production.

Desired Future Conditions

Millard County desires:

a) Responsible renewable energy development advances to the point of providing for the energy needs of the nation and Millard County while non-renewable energy resource extraction is revitalized and optimized.

b) Biomass technology is combined with reduction of Class II and Class III pinyon/juniper woodlands and excessive forest fuel loading to optimize energy production.

c) Responsible development and production of renewable energy resources are prioritized over conservation of lands for primitive recreation and passive research.

d) Renewable energy extraction industries are developed and expanded in Millard County except in National Parks and congressionally designated wilderness, unless renewable energy development is compatible with the purposes of those designations.

e) Existing disturbances - including roads, paths, ways, trails, chainings, seedings, and material pits identified in federal, state and local documents, plans and maps – need to be avoided when potential renewable energy exploration, development, production, and infrastructure are located, unless the energy development is compatible with the existing disturbance.

f) Scientific and physical research not be prioritized over livestock grazing, primitive recreation, or development and production of resources on affected lands.

g) Federal agencies include at least one alternative identifying, analyzing and disclosing maximum renewable energy development in all NEPA documents considering energy resources.

h) Land managers include a detailed socio-economic analysis, including at least one alternative considering maximum renewable energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis will clearly disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

Findings, Policies, Goals & Objectives

Finding: To date, development of renewable energy resources have not played a significant role in the welfare and prosperity of the American nation. Renewable energy resources are not currently capable of replacing non-renewable energy resources and will not be during the foreseeable life of this plan.

Goal: Manage and provide opportunities for exploration, development and production of renewable energy resources and uses.

Goal & Policy: Consistent with long term ecologic health, allow renewable energy exploration, development and production.

Goal & Objective: Establish and implement authorization policies and design/mitigation features applicable to renewable energy exploration, development and production.

Goal & Policy: Identify lands excluded from renewable energy exploration, development and production.

Goal & Policy: Identify lands suitable and prioritized for renewable energy exploration, development and production.

Objective: Define areas with development potential for renewable energy and develop management strategies for exploration, development and production while considering other resource values. Designate renewable energy zones as needed.

Objective: In cooperation with federal agencies, support scientific research of renewable energy development and how impacts on other resources may be avoided or minimized.

Policy: To the maximum extent allowed by law, land managers shall optimize renewable energy exploration and development while non-renewable energy continues to provide for the nation's and Millard County's energy needs. Exploration, development and production of renewable energy resources shall be prioritized, promoted and encouraged until 85% of the County's energy

needs, 80% of the State's energy needs and 75% of the nation's energy needs are supplied by renewable energy resources.

Policy: Land managers shall permit responsible renewable energy development projects. Technologic advances, best management practices and reasonable reclamation shall be implemented to achieve a productive and enjoyable harmony between man and his environment. For NEPA actions considering energy resources, comparative site specific and cumulative analysis between renewable and renewable energy resources shall be disclosed identifying potential energy production, production reliability, area of disturbance, life of resource, costs, jobs provided, average and median salaries, condition of reclaimed area, maintenance requirements, royalty payments, and other pertinent information.

Finding & Policy: In Millard County, responsible development and production of energy resources shall not be prioritized over livestock grazing, primitive recreation, or development and production of resources on affected lands.

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Finding & Policy: Development of geothermal energy and other renewable energy sources is of greater value to the health, safety, welfare, and security of Millard County's citizens than passive activities on federal lands. Development and production of geothermal shall be prioritized over scientific studies that do not provide equivalent socio-economic benefits. A detailed comparative socio-economic analysis shall be included in NEPA documents that may conflict or compete with potential renewable energy projects.

Finding & Policy: Proper socio-economic analysis will identify comparative benefits from competing energy development and wilderness or recreation management. Where comparative socio-economic analysis demonstrates energy related projects produce at least 5% more jobs, wages paid or income, managers shall give priority to energy related projects.

Finding & Policy: Existing disturbances - including roads, paths, ways, trails, chainings, seedings, and material pits identified in federal, state and local documents, plans and maps – shall be avoided when potential renewable energy exploration, development, production, and infrastructure are located.

Policy: In all NEPA documents considering energy resources, federal agencies shall include at least one alternative identifying, analyzing and disclosing maximum potential renewable energy development.

Policy: Land managers shall include a detailed socio-economic analysis, including at least one alternative considering maximum renewable energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis will clearly disclose the impacts

renewable energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

Finding & Policy: Renewable energy projects can enhance conservation and recovery of special status species under certain conditions. Land managers shall include a detailed, comparative analysis of impacts proposed alternatives have on conservation and recovery of special status species in NEPA documents where energy impacts are evaluated. The detailed comparative analysis will clearly disclose proposed mitigation and the long term impacts energy development will have on WHEG values, habitat conditions, mitigated acres, composition, health and vigor of vegetative communities, conformance with local species conservation plans, and other pertinent factors.

Policy: Renewable energy development in priority habitat shall conform to Millard County's recovery and conservation plan for targeted species, unless approved otherwise by the County Commission.

Policy: Surface disturbance and surface occupancy restrictions for renewable energy resources shall be based on site specific WHEG evaluations for targeted wildlife species. Where WHEG values are not available, land managers shall work in cooperation and coordination with the County to develop WHEG evaluation criteria as part of the environmental analysis for proposed renewable energy projects.

Finding & Policy: Critical/crucial habitat are areas that are decisive to the success or failure of a targeted species. When considering renewable energy projects, areas shall not be defined as critical or crucial unless disturbance of the area would result in the loss of at least 70% of the County's targeted species population. When critical or crucial habitats are considered in a renewable energy NEPA analysis, land managers shall disclose total population of the targeted species in the County, the percentage of targeted species individuals lost as a result of the various alternatives, and qualitative analysis of the impact loss of the individuals has on populations of the targeted species in the County, region and state.

Finding & Policy: Substantial habitat are areas that are of considerable/significant importance to a targeted species. When considering renewable energy projects, areas shall not be defined as substantial unless disturbance of the area would result in significant negative impacts to at least 50% of the County's targeted species population. When substantial habitats are considered in a renewable energy NEPA analysis, land managers shall disclose total population of the targeted species in the County, the percentage of targeted species individuals significantly impacted as a result of the various alternatives, and qualitative analysis of the impacts on populations of the targeted species in the County, region and state.

Policy: Based on a 10 year rolling average, Class II and Class III pinyon/juniper woodlands with a median age of less than 200 years are reduced by at least 2.5%.

References

U.S. Energy Information Administration website, April 15, 2015, https://www.eia.gov/energyexplained/?page=renewable_home

Utah Renewable Energy Zones Task Force Phase I Report, Renewable Energy Zone Resource Identification, Miscellaneous Publication 09-1 Utah Geological Survey, 2009
Energy Zones Task Force
Phase I Report
Renewable Energy Zone Resource Identification

3.8 AGRICULTURE

Current Setting:

Although rural, Millard County is not considered by many as an agricultural county when compared to other areas of the nation. Good crop land is limited; water is scarce; and federal or state lands dominate the landscape. However, throughout the last 150-plus years Millard County has been agriculturally based in its attitudes and lifestyle. Agriculture continues to have a cultural impact out-of-proportion to any economic, acreage or production standards. The mindset of Millard County's residents remains in large measure rural with an emphasis on family life. Local influences play an important part in government and social life. Like the early settlers of the County, modern-day residents still see security in agriculture and their lives take form and context from land-related influences.

Early settlers came to the County in hopes of finding suitable lands, waters and soils for agriculturally based settlements. Irrigation infrastructure and fields were the first improvements as each of the communities were populated. And similar to pioneer settlers, current residents prefer an agricultural approach to the land in contrast to development of large population centers or metropolitan areas. Abundant crop land with adequate water is limited, and further restricted by dominant federal ownership in the County. Agricultural interests are generally centered on livestock-related activities.

Mountain streams and the Sevier River have been diverted, and the farming community has become the dominant characteristic of the cultural landscape. In addition to farms concentrated near communities, livestock interests graze forest lands in the summer and dryer xeric lands in the winter. Concepts of stewardship have deterred overexpansion and exploitation of the land. For many of the County's citizens, agricultural interests extend beyond economics and are a vital part of their custom, culture, heritage and nature. Even as fewer families derive a significant portion of their living from agriculture, the value of land ownership and rural ways continues to reflect strong sentiments and preferences. The County's attitudes regarding use of public and private lands are increasingly disparate from urban areas of the state and country.

The 2012 Census of Agriculture indicated there were 728 farms or ranches in the county with an average size of 793 acres. Total acreage was listed as 577,405 acres. 363 or 50% of the farmers/ranchers derived their primary living from agricultural operations. The county had 26.3% of the land in farms as cropland and 65.8% as pastureland. Cattle and calves were the largest livestock item with 21,164 units. Livestock generated $105,800,000 of products sold. Crops produce $74,824,000 of sales, and total production was $180,624,000.

Need for Management Change

1) Regulations need to be reduced to ensure farmers and ranchers do not face undue or burdensome restrictions from state and national governments.

2) The social and cultural value of local farms, ranches and agriculture needs to be identified, analyzed and disclosed in NEPA analysis and land use plans developed by federal agencies.

3) A permanent revenue source needs to be established to fund ongoing water resource projects that support and expand agriculture. Additional water resources need to be developed to accommodate municipal growth without jeopardizing agricultural interests.

4) Additional water needs to be developed for agriculture and livestock interests on public and private land.

5) Federal and state agencies need to transfer suitable lands to private ownership for farming and ranching purposes.

6) The agricultural lifestyle of Millard County needs to be preserved and enhanced.

7) The County's strict 'No Net Loss of Private Lands' policy needs to be observed, especially related to farms, ranches and agricultural interests.

8) Federal and state agencies need to develop land in their ownership for conservation of special status species.

9) The use and production of federal lands for livestock grazing needs to be preserved and enhanced.

10) Wildlife impacts to private and public land agriculture and ranching need to be reduced. Wildlife managers need to strictly adhere to population objectives established on or before January 1, 2015.

11) Federal agencies need to eradicate noxious weeds in their jurisdiction and prevent seeds from moving to private lands.

12) Federal agencies need to restore lands occupied by invasive conifers and annual grasses to desired vegetative communities, consistent with ecologic site descriptions.

Desired Future Conditions

Millard County Desires:

a) To the maximum extent allowed by law, federal actions are implemented in a way to ensure farmers and ranchers do not face undue or burdensome restrictions.

b) The social, custom, cultural and heritage value of local farms, ranches and agriculture are identified, analyzed and disclosed in NEPA analysis and land use plans developed by federal agencies.

c) Additional water is developed for agriculture and livestock interests on public and private land.

d) A permanent revenue source is established to fund ongoing water resource projects that support and expand agriculture; and additional water is developed to accommodate municipal growth without jeopardizing agricultural interests.

e) Federal and state agencies transfer suitable lands to private ownership for farming and ranching purposes.

f) The agricultural lifestyle of Millard County needs to be preserved and enhanced.

g) Federal and state agencies strictly adhere to the County's No Net Loss of Private Lands policy, especially regarding farms ranches and agricultural interests.

h) Federal and state agencies develop lands under their ownership for conservation of special status species, and, to the maximum extent allowed by law, relieve the burdens on private agricultural lands imposed by the Endangered Species Act.

i) The use and production of federal lands for livestock grazing is preserved and enhanced.

j) Wildlife impacts to agriculture and ranching interests are reduced.

k) Wildlife managers strictly adhere to population objectives established on or before January 1,

2015.

l) Federal agencies eradicate noxious weeds in their jurisdiction which are suspected of being the seed source for private lands.

m) Federal agencies restore lands occupied by invasive conifers and annual grasses to desired vegetative communities, consistent with ecologic site descriptions.

Findings, Policies, Goals & Objectives

Finding, Policy, Goal & Objective: The agricultural lifestyle of Millard County shall be preserved and enhanced**.**

Finding, Policy, Goal & Objective: Agriculture and ranching interests are vital to the custom, culture, heritage and lifestyle of Millard County and shall be preserved an enhanced to the maximum extent allowed by law.

Policy: Federal and state agencies shall reduce the burdens on farmers and ranchers to the maximum extent allowed by law.

Policy: The social, custom, cultural and heritage value of local farms, ranches and agriculture shall be identified, analyzed and disclosed in NEPA analysis and land use plans developed by federal agencies. Local farms and ranches constitute small businesses under the Regulatory Flexibility Act and shall be analyzed in accordance with federal law.

Finding, Policy, Goal & Objective: Water is a vital resource that benefits all activities on public and private lands; and additional water needs to be developed for agriculture and livestock interests. Federal and state agencies shall develop additional water resources to the maximum extent allowed by law.

Goal & Objective: A permanent revenue source is established to fund ongoing water resource projects that support and expand agriculture.

Policy, Goal & Objective: As municipal needs increase, additional water will be developed to accommodate municipal growth without jeopardizing agricultural interests.

Policy: Millard County supports the transfer suitable state and federal lands to private ownership for farming and ranching purposes.

Policy: Federal and state agencies shall strictly adhere to the County's No Net Loss of Private Lands policy, especially regarding farms ranches and agricultural interests.

Finding, Policy, Goal & Objective: Adequate state and federal lands exist to conserve and recover special status species. To the maximum extent allowed by law, federal and state agencies shall develop lands under their ownership for conservation and recovery of special status species, and shall relieve the burdens on private agricultural lands imposed by the Endangered Species Act.

Finding, Policy, Goal & Objective: The use and production of federal lands for livestock grazing is a cultural and ethnographic resource and shall be preserved and enhanced.

Finding & Policy: Sufficient state and federal land exist for the management of wildlife. Wildlife impacts to agriculture and ranching interests shall be reduced; and wildlife managers shall strictly adhere to population objectives established on or before January 1, 2015.

Policy: Federal agencies shall eradicate noxious weeds in their jurisdiction which are suspected of being the seed source for private lands.

Policy: Federal agencies shall restore lands occupied by invasive conifers and annual grasses to desired vegetative communities, consistent with ecologic site descriptions.

Policy: Millard County supports ongoing training resources for agricultural interests to ensure residents are fully aware of available technological advances and funding sources.

Policy: Millard County supports active vegetative treatments on public lands and expansion of livestock grazing AUM as forage increases.

Policy: Millard County opposes grazing buyouts, and any other scheme to retire grazing AUMs and prohibit their proper public use by qualified grazers. When grazing AUM's are given up by

a public lands livestock grazer, those AUMs shall be made available for other qualified grazers to acquire and utilize.

Policy, Goal & Objective: Consistent with ecologic site descriptions, vegetative resources shall be managed to optimize rangeland health and forage production.

CHAPTER 4
SPECIAL DESIGNATIONS

4.1 INTRODUCTION

Special Designation Areas are established to protect and preserve their unique values and uses. These areas require different management than would normally be applied to the surrounding lands. This section of the plan identifies existing special management areas within the County and addresses, to some degree, those existing conditions, as well as future objectives, suitability criteria, guidelines, qualities, uses, acceptable activities, goals, policies, and minimum requirements for establishment and/or management in the future. Establishment or management of specially designated areas described herein without complying with establish criteria is inconsistent with the Millard County General Management Plan and considered a violation of local law.

This section describes the current setting, need for management change, desired conditions, policies, goals, objectives, and criteria related to special designations in Millard County. It is recognized that there is a significant body of Law regarding various land management decisions. It is desired that all of the land management entities comply with the conditions identified below. Management actions must be consistent to the maximum extent allowed by law with Millard County's General Management Plan. Unless directed by federal or state law, management actions that are contrary to the stated positions are inconsistent with Millard County's General Management Plan. Where no federal body of law exists regarding land management decisions or where decisions are left to the agency's deference or discretion, management actions must be consistent with the positions identified in this plan.

Special designations can be grouped into three broad categories:

Congressional/Legislative Designations - Specially designated areas that are statutorily established by Congress or the Utah State Legislature include National Parks, National Recreation Areas, National Forests, National Monuments, National Wildlife Refuges State Parks, Wilderness, and Wild and Scenic River Corridors. Land managers and others may make preliminary recommendations that ultimately could result in congressional/legislative action, but final designation does not take place until the appropriate legislative body takes action. Generally, recommendations require evaluation processes conducted as part of land management plans or NEPA activities and may be administrative recommendations.

Administrative Recommendations - In some cases, land managers may make recommendations for special management areas that are evaluated as part of a public land

management planning process or that may need action at higher administrative levels to become final. These areas generally include locations managed under special/different management prescriptions. They may include but are not limited to research natural areas, experimental forests, scenic highways, Areas of Critical Environmental Concern (ACECs), wilderness study areas (WSAs), national trails, Wild and Scenic River recommendations, backcountry/roadless/primitive areas and SRMAs**.** An extreme example of this type of administrative recommendation is the Grand Staircase Escalante National Monument. It was originally an administrative decision by the President of the United States and subsequently became a Congressional Designation when it was ratified by Congress.

Areas Identified by Land Manager - Authority regarding this category of special area generally rests with the individual land manager. The land manager may identify, remove, or provide some special management for these areas through approval of the land management plan, land management plan amendments, land management plan revision, or a special management order. These areas may include lands with specific resource management such as lands with wilderness character, visual resource / scenery management lands, No Surface Disturbance lands, or lands under special protective order.

4.2 CONGRESSIONAL/LEGISLATIVE DESIGNATIONS

No congressionally or legislatively designated areas are known to exist in Millard County, excepting the Piute Indian Reservation which is considered an independent tribal government. In many rural counties, lands now designated as federal Parks, Monuments, and Recreation Areas place an onerous burden on residents and tax payers of neighboring counties. Millard County has not experienced negative impacts to the same level as some of Utah's more heavily impacted areas. However, Millard County has experienced some negative impacts resulting from Wilderness Study Area designations and opposes designations without County Commission concurrence.

4.2.1 NATIONAL PARK SERVICE UNITS

Current Setting
There are no National Parks, National Recreation Areas, National Monuments or other units under management of the National Park Service in Millard County.

Need for Management Change
There is no need for management change regarding Park Service designations in Millard County. No lands are deemed suitable for Park Service designations. All federal lands in Millard County should continue to be managed for multiple-use / sustained yield activities.

Desired Future Conditions
Millard County desires:

No federal lands in Millard County be designated for National Park Service management without the concurrence of and coordination with the Millard County Commission.

Policies, Goals, Objectives, and Criteria

Finding: No lands in Millard County are suitable for designation as National Park Service Units.

Policy: Millard County opposes any National Park Service designation that is not created with the full concurrence of and full coordination with the Millard County Commission.

Finding: National Park Service Units place an onerous burden on local governments. Public services including but not limited to law enforcement, emergency medical services, fire protection, road maintenance, search & rescue, and solid waste collection/disposal need to be coordinated with Millard County, and appropriate reimbursement agreements must be executed.

4.2.2 NATIONAL WILDLIFE REFUGE

Current Setting

There are no National Wildlife Refuges in Millard County.

Policies, Goals, Objectives, and Criteria

Finding: National wildlife refuges may place an onerous burden on local governments. Public services including but not limited to law enforcement, emergency medical services, fire protection, road maintenance, search & rescue, and solid waste collection/disposal need to be coordinated with Millard County, and appropriate reimbursement agreements must be executed.

Policy: Millard County opposes any national wildlife refuge designation that is not created with the full concurrence of and full coordination with the Millard County Commission.

4.2.3 FOREST SERVICE UNITS

Current Setting

Almost 263,000 acres or six percent (6%) of the land in Millard County is under Department of Agriculture management administered by the Fishlake National Forest, Fillmore Ranger District.

The Forest Management Act of 1897 provided management provisions and defined the purpose of the Forest Reserves (the precursor of National Forests) as forest protection, watershed protection and a source of timber supply for the nation. For approximately 20 years, the Forest Service has been moving away from the original mandate and has focused primarily on natural features, wildlife and non-motorized recreation. This has resulted in negative economic and social impacts to the residents of Millard County and increased burdens for public services. The Forests Service's inability to provide consistent timber sales has resulted in closures of regional sawmills, devastating bug infestations, loss of natural resource based industries, greater risk of intense wildfires, and associated detrimental social and economic effects.

At the present time, forests in Millard County are generally classified as roaded natural or semi-primitive non-motorized with most areas having been noticeably impacted by man. Visitor use surveys conducted by the Dixie National Forest; e.g. document more than 80% of their visitors are engaged in motorized activities and a minimal percentage are using the forests primarily for

primitive recreation. It is asserted by Millard County that the same usage exists within its boundaries.

Need for Management Change

1. Forest Service units need to revive opportunities for natural resource based industries, specifically including commercial timber harvesting, and mining.

2. The County land use plan has carefully considered Forest Service planning. Forest Service planning efforts need to be consistent to the maximum extent allowed by law with Millard County's General Management Plan and Resource Management Plan.

3. The existing network of roads and trails needs to be preserved and better utilized or expanded. Visitation is largely motorized. Route elimination or closure should be limited to only those routes causing significant resource damage and only after obtaining concurrence with the County Commission. Viable routes needs to be developed to connect the various public lands throughout the region.

4. The Forest Service should return to its original emphasis of protecting its lands and water while providing reliable sources of sustainable timber.

5. Forest lands should be managed for long term sustainability of natural resource development. Multiple-use concepts should be re-instated, and primitive or semi-primitive recreation opportunities should be focused in designated wilderness areas. Roadless, backcountry and other non-motorized recreation oriented activities should give deference to natural resource industries as opportunities develop.

6. The Forest Service needs to compensate Millard County commensurate with use of public services, such as landfills, solid waste collection, emergency medical services, search and rescue, law enforcement, etc. Visual Resource management, Recreation Opportunity Spectrum analysis, OHV designations, Outstandingly Remarkable / Relevant-Important evaluation, Transportation Networks, wild & scenic rivers, unroaded / undeveloped /inventoried roadless areas, and other management tools / criteria need to be consistent, to the maximum extent allowed by law, with comparable components of the Millard County General Management and Resource Management Plans. Where findings, policies, criteria, protocols, and procedures have been used in development of the County Plan, no new processes should be used without County Commission concurrence.

7. Livestock grazing needs to be recognized as an activity of cultural and historic significance. Lands need to be managed to enhance forage for livestock operations and wildlife. Vegetative

treatments should be implemented to expand livestock grazing opportunities on forest service lands.

8. In as much as lands within research natural areas have been withdrawn from multiple-use management, Forest Service units need to expand natural resource extraction opportunities, economic, scientific, and cultural opportunities and increase beneficial uses for residents and visitors of Millard County to the maximum extent possible in areas outside research natural areas.

9. Visual Resource management, Recreation Opportunity Spectrum analysis, OHV designations, Outstandingly Remarkable / Relevant-Important evaluation, transportation networks, and other management tools and criteria need to be consistent, to the maximum extent allowed by law, with comparable components of the Millard County General Management Plan. Where criteria, protocols, and procedures have been used in development of the County Plan, no new processes should be used without County Commission concurrence**.**

Desired Condition

Millard County desires:

a) To develop a good working relationship with the United States Forest Service represented by the Fishlake National Forests. Millard County desires that this relationship maximize:

- Consistency with the County's plan, programs and policies
- Opportunities for meaningful involvement through cooperating agency status, and
- Government to government coordination

b) Natural resource based industries, particularly the timber industry be revived. The Forest Service should expend efforts comparable to those expended in the special status species program at reviving the timber industry. This can be done by easing industry liability and enhancing opportunity for allowable harvest of timber. Reasonable mining can also be revived.

c) Those areas that are now managed for backcountry experiences, such as roadless areas, or for primitive recreation be re-evaluated for declassification and brought into compliance with the Millard County's General Management Plan and ROS analysis.

d) Forest Service units return to an emphasis on development and harvesting of water and timber resources, and vegetative management for livestock and wildlife. Primitive and non-motorized recreational opportunities should be focused on federal lands that have been reserved for those

purposes and that are abundant elsewhere in the region.

e) If lands are managed for recreational purposes, recreation be identified as the lowest viable use and that natural resource based production industries including timber, grazing, and mining be given higher priority. Livestock grazing, timber harvesting and energy development must be considered the most valuable uses of Forest Land and be given deference over non-motorized recreation.

f) The stewardship concept be expanded and considerable effort be expended to develop viable, emerging, natural resource based industries, including but not limited to renewable resources.

g) No additional units of the National Forest be managed as wilderness and that areas managed for non-motorized activities comply with the Millard County General and Resource Management Plans, the Millard County ROS or be approved by the Millard County Commission.

h) The Forest Service recognizes all valid and existing rights.

i) The National Forest Service to be more aggressive in harvesting bug infested timber.

j) The Forest Service make its lands available for solid waste collection facilities, fire stations, and other vital public services when significant private recreational facilities exist within or adjacent to the National Forest boundaries.

k) Where small parcels of difficult to manage land exists in Forest Service jurisdiction, efforts be made to resolve conflicts and establish viable management options.

l) Solid waste management facilities be made available inside of National Forest Service units and that waste management be handled on a County-wide basis with a single billing procedure.

m) The motorized travel management plan be consistent with the Millard County Off Highway Vehicle (OHV) Ordinance. Before any roads, paths, or ways be designated for closure or limited to only administrative use, they be must be fully evaluated for valid or existing rights and adjudicated by a court of competent jurisdiction prior to implementation of any restrictive action.

n) No new wilderness or roadless areas be designated within the National Forest in Millard County.

o) Any routes that have heretofore been designated as unclassified or unauthorized roads be considered for wildlife or other management purposes. Unclassified/Unauthorized roads must also be designated or recognized as part of any recreation opportunity spectrum in accordance

with Forest Service criteria for primitive routes. Roads used for wildlife need to be managed in coordination with the grazing of livestock; and purposes / benefits should be distributed equally or in favor of livestock.

p) Management priorities in order of importance for the Forest be:

1) Commodity production,
2) Natural resource enhancement,
3) General multiple-use management,
4) Recreation

q) Routes to accommodate all modes of travel need to be expanded on Forest Service lands.

r) Forest Service units work cooperatively with the County and other agencies in developing OHV and Bike trail facilities to permit travel to and from neighboring counties.

Policies, Goals, Objectives, and Criteria

Goal: Revive opportunities and capabilities for a natural resource based industries within the forest.

Policy: It is Millard County's policy to support planning and implementation actions that are consistent with Millard County's General Management and Resource Management Plans. It is also Millard County's policy to oppose planning and implementation actions that are inconsistent with these Plan.

Policy: The pre-existing network of roads and trails on Forest Service lands prior to the latest travel management plan needs to be preserved, better utilized, and/or expanded. Millard County opposes closure of roads or implementation of management restrictions, unless the benefits of such proposals outweigh the negative impacts to access and unless such actions are fully coordinated with and receive full concurrence of the Millard County Commission.

Policy: Detailed information will be required to document the benefits of any proposed reduction to access.

Goal/Objective: Resolve road related conflicts on all routes that existed at the time of the last Forest Management Plan or that have been created since that time.

Objective: Assist the Forest Service in its original emphasis on protecting its lands and water while providing reliable sources of timber. Included in this objective are:

a) revival of traditional natural resource based industries,
b) development of stewardship industries and
c) resource management that will provide for long-term stability and enhancement of local communities.

Policy: Millard County will support recreation management scenarios that are consistent with Millard County's Land Use Management Policy and Recreation Opportunity Spectrum. Millard County opposes designation of wilderness, backcountry, or primitive/unroaded areas without Commission concurrence.

Policy: Millard County will be compensated for solid waste at the established collection fee schedule unless it can be demonstrated that solid waste produced by forest visitors is collected and disposed of by some other forest managed program.

Objective: Develop cooperative agreements and systems necessary to compensate Millard County commensurate with use of public services by the National Forest and forest visitors.

Policy: Millard County will support National Forest Service programs, which are consistent with the Resource Management Section of Millard County General Plan, the County's Recreation Opportunity Spectrum Analysis, Land Use Management Policy, Transportation System, Visual Resource Management Designations, and other planning tools adopted by Millard County. The County will oppose management actions and scenarios that are inconsistent with such planning tools.

Finding: The Transportation System in the Forest that existed prior to the latest travel management plan revision is the minimum necessary for attainment of original Forest Service management goals of forest/watershed protection, timber supply for the nation, and current goals of vegetative, hydrologic, and geologic management, wildlife and recreation. Considering the increasing motorized travel needs, particularly regarding OHVs and the large percentage visitors to the forests using motorized recreation, closure of any roads on the forest without County concurrence is a negative impact to the custom, culture, socioeconomics, and viability of the County and needs to be offset with other management actions that enhance motorized recreation opportunities.

Finding: Millard County finds:

- Land owners and users are jointly responsible for impacts to public services.
- National Forest Service Units are fiscally responsible for solid waste disposal.

4.2.4 STATE PARKS

Current Setting

The Territorial Statehouse State Park is the only State Park in Millard County. It lies completely within the boundaries of Fillmore City.

The old Territorial Statehouse building was to be the Capitol building for the Territory of Deseret. Only one wing of the proposed building was constructed. This wing was never finished. The Territorial Legislature only convened in this building one time. Due to geographic distances, the Territorial Capital was relocated to Salt Lake City. This facility changed ownership several times. It became a State Park with adjacent 19th century buildings on the property. The Statehouse serves as a pioneer museum and is used for some public gatherings.

Old Fort Deseret in the community of Deseret near Delta is managed by the Territorial Statehouse Park.

Desired Condition

Millard County desires State Parks be enhanced, and used to augment recreational opportunities that exist in other portions of the County.

Policies, Goals, Objectives, and Criteria

Goal: Enhance and expand existing State Parks where necessary, and create new State Park amenities where there is a demonstrated need to do so.

Policy: It is the policy of Millard County to support the enhancement/expansion of State Parks and Recreation Areas consistent with land use policies and the Millard County Resource Management Plan. This will include, but not be limited to, the development of amenities, structures, access routes, and any other needful infrastructure associated with the expansion and/or development of the State Parks system.

Goal/Objective: Develop an agreement with State Parks to work under the direction of the County Sheriff regarding Law Enforcement.

Policy: Millard County supports expansion of recreation, economic, scientific, and cultural opportunities, which increase beneficial use and enjoyment for residents and visitors to the State Parks.

Policy: Millard County supports Utah State Parks in expanding beneficial impacts and reducing negative impacts on County services.

Policy: State Parks need to compensate Millard County for public services utilized.

4.2.5 WILDERNESS

Current Setting

Wilderness, simply defined, is an undeveloped tract of land retaining its primeval character and influence without permanent improvements or human habitation. Wilderness areas are federally protected and managed to preserve their natural conditions, which generally appear to have been affected primarily by the forces of nature and the imprint of man's activity is substantially unnoticeable; have outstanding opportunities for solitude or primitive, unconfined recreation, be at a minimum 5,000 acres, where man is a visitor and does not remain. They may have supplemental values such as features of scientific interest, educational interest, scenic qualities, or historical value as well as ecological and geological values of interest.

The Wilderness Act of 1964 directed federal agencies to complete a three-step process to preserve lands that met certain specific criteria establishing them as "Wilderness". The steps included:
1) an initial inventory to distinguish lands that clearly and obviously lacked wilderness character from lands that could possibly have wilderness values;
2) an intense study phase to identify lands that were suitable for congressional designation; and
3) a recommendation phase where federal agencies submitted recommendations to be acted upon by Congress.

Economic benefits of a Wilderness Area are considered minimal and would be offset by almost any search and rescue, emergency medical, or law enforcement event.

Desired Condition

Millard County desires:
a) Lands identified by the Millard County Commission as eligible and suitable for wilderness be so designated.
b) All other lands be released from management for wilderness character and be managed in accordance with the County's Land Use Plan.
c) The use and enjoyment of wilderness areas be expanded to the maximum extent allowed by

law.
d) Federal agencies managing wilderness compensate the County for public services based on visitation and use.
e) Only those lands identified and approved by the County for wilderness, primitive, semi-primitive non-motorized types of recreation be designated for such use. Non-WSA lands with wilderness characteristics need to be managed in accordance with Millard County's Land Use Plan.
f) All lands not designated as wilderness be developed to the maximum extent allowed by law for commodity production and socioeconomic growth.

Policies, Goals, Objectives, and Criteria

Policy: It is the policy of Millard County to support wilderness designation only for those areas that have been inventoried, assessed and identified by the Millard County Commissioners as having true wilderness character.

Policy: It is the policy of Millard County that all lands not recommended by the Millard County Commissioners for wilderness designation be released from further consideration.

Action: Assist State and Federal legislators in developing legislation that will release lands identified as not recommended for wilderness from further consideration and will return them to Multiple-use/Sustained Yield or Commodity Production Management.

Policy: It is the policy of Millard County to oppose any efforts by federal agencies to implement wilderness evaluations or inventories conducted after the following dates:

National Park Service	December 31, 1978
National Forest Service	December 31, 1984
Bureau of Land Management	December 31, 1991

Findings

In the 1970s National Park Service units and the BLM completed studies that were part of a thorough and professional inventory process that ensured no valid basis for questioning wilderness inventory results would occur. The intent of the initial inventory was to carry forward, for additional study any lands that may have possibly contained wilderness characteristics. The inventory process was done in an objective, professional manner prior to the time when emotion, politics, and lobbying interests drove the wilderness debate.

BLM submitted their final recommendation in 1991. In the mid-1990s Secretary Babbitt

initiated efforts to overturn the objective recommendations submitted previously by Department of the Interior agencies and initiated a process aimed at lowering wilderness recommendation standards. Court action to stop the process was filed. The courts found that the wilderness recommendation process had ended and that no additional recommendations could be forwarded to Congress. However, the courts also found that federal agencies could inventory resources on their lands including wilderness characteristics.

The wilderness re-inventory effort directed by Secretary Babbitt was politically driven and was inconsistent with previous criteria. As a result, it lacked the objectivity, professionalism, and integrity of previous studies and original recommendations. Therefore, discussions regarding Wilderness/WSAs consider only recommendations contained in the Utah BLM Statewide Wilderness Final Environmental Impact Statement completed in 1991. Later inventories are found to be arbitrary, capricious, and lacking factual data supporting wilderness claims.

As part of the original study phase, the BLM identified approximately 294,000 acres of land in Millard County suitable for additional study as WSAs. The Millard County Master Plan of 1999 proposed that 30,100 acres of BLM lands in six WSAs be designated wilderness. That recommendation was re-evaluated in 2006. In the subsequent evaluation Millard County identified 138,606 acres as suitable for wilderness designation. BLM recommended two areas not be designated as suitable for WSAs – these two WSAs are the Conger and King Top areas, comprising approximately 113,111 acres. BLM concurred that these two areas not be designated WSAs. Congress has taken no action to delist Conger or King Top WSAs.

Maps depicting Wilderness Recommendations by the National Park Service and Wilderness Study Areas recommended for Wilderness by the Bureau of Land Management were reviewed in developing Millard County's Recommendations for Wilderness.

Millard County finds that the majority of WSAs in Millard County lack outstanding opportunities for solitude and outstanding opportunities for primitive recreation necessary to qualify them for wilderness. Findings are supported by the BLM's 1991 Statewide Wilderness Final EIS and are tabulated below. Millard County finds the initial inventory, intense study phase and the recommendation phase of the wilderness process competed prior to 1992 as the most accurate evaluation of wilderness values in Millard County. The County finds that only those areas identified as Rec Ia in the Millard County General management Plan are suitable for wilderness designation. All other lands in Millard County are not suitable for wilderness and should be managed in accordance with the County's Land Use Plan.

Goals and Policies:

Goal: In the 1990s federal courts ruled no new wilderness recommendations could be forwarded

to Congress. Delisting of Wilderness Study Areas in Millard County not designated as Wilderness Areas is the County's desire.

Policy: Millard County will seek congressional action to remove WSA designation for the King Top and Conger WSAs in keeping with BLM's recommendation.

4.3 ADMINISTRATIVE RECOMMENDATIONS

Special administrative areas serve a variety of functions and can be limited to a specific scope and size or can be general and large in nature. Administrative designations can be made at various levels of public land management, but do not require congressional or legislative approval. Millard County has several administrative special designations. Each designation is accompanied by its own set of impacts on Millard County.

Administrative designations are defined as those areas where designation is the responsibility of local land management administrators. These areas are subject to valid existing rights and are used to protect special land values that could be degraded. They are approved on a case-by-case basis and are subject to review of potential impacts affecting the area through appropriate NEPA analysis.

Desired Condition

Millard County desires:
a) Designations, which fail to meet this standard, should be postponed, relocated, mitigated, or denied.
b) Administrative designations be consistent with Millard County's Resource Management Plan and, absent federal law to the contrary, be subject to local law, ordinance, or other special concurrence.

Policies, Goals, Objectives, and Criteria

Finding: Each special designation brings with it, their own benefits, problems, and impacts on County resources, residents, and visitors. Millard County finds:

Administrative designations that occur without Commission concurrence are inconsistent with Millard County's General Management Plan. In addition, such inconsistent designations have significant negative direct, indirect, and cumulative impacts on the County's custom, culture, and socioeconomic stability.

Objective: It is the objective of Millard County to fully participate and Coordinate with federal agencies on a government to government level in the development of any special designations, verifying there is a demonstrated need and that no other management scenarios can be utilized to accomplish desired outcome.

4.3.1 RESEARCH / NATURAL / GEOLOGICAL / BOTANICAL AREAS

Forest Service units manage Research Natural / Geologic / Botanical Areas (RNAs) to protect natural ecosystems for the purposes of scientific study and education and for maintenance of biological diversity. These areas constitute a valuable ecological resource for scientists, managers and educators and represent a wide variety of habitats and ecosystems. RNAs are permanently protected and maintained in natural conditions, for the purposes of conserving biological diversity, conducting non-manipulative research and monitoring, and fostering education.

Research Natural Areas can also serve as baseline or reference areas. RNAs are generally managed to maintain the natural features for which they were established, and to maintain natural processes. Because of the emphasis on natural conditions, they are excellent areas for studying ecosystems or their component parts and for monitoring succession and other long-term ecological changes. Non-manipulative research and monitoring activities are often encouraged in RNAs and can be compared with manipulative studies conducted in other areas.

Current Setting

The Interior West Region listing of Research Natural Areas contains the Desert Range Experimental Area consisting of 87 square miles of land in the southwestern corner of Millard County. It is managed by the US Forest Service. No other Research Natural Areas are known to exist in Millard County.

Need for Management Change

1. Management for Research Natural/Geological/Botanical Areas needs to be Coordinated with the Millard County Commission to explain goals, objectives, research potential, benefits, detriments, and management prescriptions.

2. No Research Natural/Geological/Botanical Areas should be developed without Millard County Commission concurrence.

Desired Condition

Research Natural Areas are defined as areas where there is an occurrence in a natural condition which exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features. The idea is to set aside to preserve a representative sample of an ecological community primarily for scientific and educational purposes; commercial and general public use is not allowed. Millard County asserts that examples of most of these types of designations have already been captured within the boundaries of other congressional designations or that relict

species are captured on mesa tops or other lands where terrain has not allowed impact by man.

Millard County desires:

a) Before any designations are made, the proposal needs to be fully Coordinated with Millard County and meet all criteria set forth in the County's Resource Management Plan. Prior to Commission concurrence the Forest Service shall conduct:

1) An assessment of impacts be made that considers cumulative impacts of the actions; and

2) A thorough inventory be made to consider whether a similar area is already being protected within the boundaries of another Federal or State agency.

b) Research Natural, Geological, Botanical Areas be consistent with Millard County's Resource Management Plan and, absent federal law to the contrary, be subject to local law, ordinance, or other special consideration.

c) Research Natural, Geological, Botanical Areas be limited to only those areas that can provide significant scientific information and interpretive opportunities while preserving the custom and culture and enhancing the socioeconomics of the County.

d) No Research Natural, Geological, Botanical Areas be designated without the County's support and concurrence.

e) The benefit associated with the existing Research Natural, Geological, and Botanical Areas be enhanced and become a focal point for scientific and interpretive activities.

Policies, Goals, Objectives, and Criteria

Policy: It is the policy of Millard County to support only Research/ Natural/ Geological/ Botanical areas where there is a clear and demonstrated need, consistent with the terms and conditions of the Millard County General Management and Resource Management Plans.

Action/Implementation: In addition to full Coordination with federal agencies, Millard County will be a cooperating agency in proposals that consider Research/ Natural/ Geological/ Botanical areas.

Finding: Millard County finds:

a) Existing Research Natural/Geological/Botanical areas have not reached their full potential for use and enjoyment by the public and should be more highly promoted.

4.3.2 SCENIC HIGHWAYS

Current Setting

Scenic Highways are generally established as a promotional effort to highlight a road with the aim of increasing tourism. Although scenic highways (including byways, backways, etc.) are generally designated by a state or federal agency, the roads are almost always under the management and maintenance authority of the Utah Department of Transportation (UDOT) or the local government. In recent years some agencies have incorrectly attempted to use the word "scenic" in these designations as justification for additional management prescriptions or to meet specific criteria required for other designations. A map depicting designated scenic highways in Millard County will be included in this plan as updates are completed.

The National Scenic Byways Program was established under the Intermodal Surface Transportation Efficiency Act of 1991, and reauthorized in 1998 under the Transportation Equity Act for the 21st Century. Under the program, the U.S. Secretary of Transportation recognizes certain roads as National Scenic Byways or All-American Roads based on their archaeological, cultural, historic, natural, recreational, and scenic qualities. All-American Roads must exhibit multiple intrinsic qualities. For a highway to be considered, it must provide passage for passenger cars year-round; it must be designated a State Scenic Byway; and it must have a current corridor management plan in place.

There are no National Scenic Byways in Millard County.

Utah Scenic Byways are similar to National Scenic Byways. Utah State Scenic Byways are paved highways that have been designated by official State declaration for their scenic, historic, recreational, cultural, archeological, or natural qualities that are generally suitable for year-round travel by passenger cars. US 50 & 6 is a designated Utah Scenic Byway.

State Scenic Backways (see Administrative Code R296) are roads that may not be generally conducive to year-round travel by passenger cars and are intended to be showcases of Multiple-use. They have been designated by official State declaration for their scenic, historic, and recreational qualities. Backways often require four-wheel drive, and road conditions can vary due to such factors as season and weather. There are currently no Utah Scenic Backways within Millard County.

Need for Management Change

1. The most dominant feature of a scenic highway is generally the highway itself. Scenic Highway designations should not be used to justify establishment of other special designations. Lands adjacent to specially designated highways need to be evaluated on their own merit, and management prescriptions need to be consistent with established criteria.
2. Scenic byway or backway designation should not place prescriptive management on the road

or its adjacent lands without County Commission concurrence.

Desired Condition

Millard County desires:
a) Scenic Highway designations be consistent with the Millard County Resource Management Plan, be consistent with local law, policies and objectives and have approval from the Millard County Commissioners before designation.

b) Prior to any designation, the managing agency determines the significance of designation on other resource values and that an assessment of cumulative impacts be made. These assessments must consider both the positive and negative impacts that can be expected from designation.

c) Designated Scenic Byways and Backways be used to attract visitors, as a showcase of multiple-use concepts, and to enhance socioeconomic activity while preserving custom and culture.

d) Scenic Highways be used to attract additional visitors while providing greater access to public lands.

e) Use of Scenic Highways as a justification for restrictive land management prescriptions be discontinued.

f) Scenic Highways within the County be designed, constructed, and maintained to an all-weather, year around condition meeting AASHTO Standards.

g) Right-of-way issues associated with Scenic Highways be resolved and County rights-of-way be recognized.

h) The rights-of-way have sufficient width, scope, and NEPA analysis to permit the improvement to an all-weather condition meeting AASHTO Standards, including paving if the County desires.

i) No Scenic Highways be designated without County concurrence.

j) Federal and State agencies expand promotion of the Scenic Highways and increase opportunities for multiple-use activities along the highways, in as much as, Federal guidelines indicate Scenic Highways be a showcase of multiple-use activities.

Policies, Goals, Objectives, and Criteria

Objective: It is the objective of the County to promote Scenic Byways and Backways as showcases of multiple-use and to oppose management of adjacent lands that is inconsistent with the Millard County General Management Plan.

Policy: It is the policy of Millard County to cooperate with other agencies to determine the demonstrated need and the minimum land necessary to accomplish desired outcomes.

Policy: It is the policy of Millard County to support only Scenic Highways that are consistent with local bodies of law, ordinances, plans, and are the subject of a cumulative environmental review which determines the impact to local and regional environments, social and economic impacts caused by designation.

Action/Implementation: Scenic Highway proposals will be reviewed by the Planning Commission and the Board of Commissioners, and may be the subject of public hearings to determine the support of local communities that will be affected.

Findings: Millard County finds Scenic Highways are showcases of multiple-use principles; and restrictive land management is inconsistent with Federal and State policy establishing Scenic Highways and is inconsistent with the County's General and Resource Management Plans.

4.3.3 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Current Setting

ACECs are specifically designated areas where special management attention is required to protect relevant and important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes from irreparable damage, or to protect life and safety from natural hazards. As of January 2016, there are six (6) ACECs in Millard County. Efforts have been made to disguise wilderness proposals as ACECs contrary to settlement agreements reached between the State of Utah and the United States government and inconsistent with federal planning regulations and local land use plans.
The ACECs in Millard County are: Pahvant Butte, Tabernacle Hill, Wah Wah Mountain, Gandy Saltwater Marsh, Gandy Warm Springs, and Fossil Mountain.

The Federal Land Policy and Management Act (FLPMA) defines an ACEC as an area within the public lands where special management attention 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.

Other than the broad relevance and importance criteria listed immediately below there are very little objective criteria for establishing an ACEC. To date, agency determinations have been speculative at best. To some degree they have been used as an attempt to create wilderness, where it did not exist, or to implement prescriptive management action on large blocks of public land.

ACEC Relevance Criteria*

Must meet one or more of the following:
1. A significant historical, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).
2. A fish and wildlife resource (including but not limited to habitat for endangered, threatened, or sensitive species, or habitat essential for maintaining species diversity).
3. A natural process or system (including but not limited to endangered sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).
4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the RMP process that it has become part of a natural process.

ACEC Importance Criteria*

The value, resource, system, process or hazard described in the relevance section must have substantial significance and values to meet the importance criteria. This generally means that the value, resource, system, process, or hazard is characterized by one or more of the following:
1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
3. Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.
4. Has qualities that warrant highlighting in order to satisfy public or management concerns about safety and public welfare.
5. Poses a significant threat the human life and safety or to property.

*43 CFR 1610.7-2. BLM Manual 1613 – Areas of Critical Environmental Concern

Need for Management Change

1. There are limited objectives or consistent Federal criteria for evaluating potential ACECs.

Recently large parcels have been evaluated for values loosely defined as “scenic” or “cultural.” Relevant and important values need to be identifiable, articulated, mapped, and distinctly characterized. Values for which an ACEC is considered need to meet standards identified in the Millard County General Management Plan.

2. There must be a threat to relevant and important values, which is imminent, irreparable, and must not be able to be controlled by other available management tools.

3. ACECs need to be limited to the smallest area necessary to protect relevant and important values from irreparable harm. At least 95% of any land considered for ACEC eligibility needs to meet the relevant and important criteria for which the ACEC is being considered. Areas not meeting relevant and important criteria need to be eliminated from ACEC consideration.

4. In cooperation with federal agencies, Millard County needs to continue to evaluate ACEC proposals as they become available.

5. ACECs need to be identified and designated only to protect those suitable, relevant and important resources that are subject to imminent threat of irreparable harm and that cannot be protected by normal management actions. In addition there is a strong need to hold ACECs areas to a very high standard and limited in size/number to permit the maximum opportunity for the use and enjoyment of public lands and multiple-use - sustained yield management.

Desired Condition

Millard County desires:
a) Before any ACEC designation is made, the proposal meets the criteria set forth in the Millard County Resource Management Plan, that an assessment of impacts be made that considers cumulative impacts across agency boundaries, and that a thorough inventory be made to consider whether an similar area is already being protected within the boundaries of another Federal or State agency in the region of comparison.

b) ACEC designations be consistent with Millard County’s Resource Management Plan and, absent federal law to the contrary, be subject to local law, ordinance, or other special consideration.

c) Cooperative agreements regarding public safety and County services be developed between Millard County and Federal agencies and that ACEC proposals, evaluation and designation be fully Coordinated with Millard County prior to ACEC designation.

d) ACECs be designated only on those lands containing Relevant - Important Values that are

threatened by irreparable harm and that cannot be managed in some other way.

e) At least 95% of the land contained in any ACEC proposal meet criteria for Relevant - Important Values contained in Millard County's General Management and Resource Management Plans.

f) Areas characterized by broad descriptions such as “scenic”, “cultural”, and “geologic” that fail to have important - relevant values described with specificity be eliminated from ACEC consideration.

g) No ACEC be designated without County concurrence.

h) ACEC designation be a temporary measure only when threats of irreparable harm need to be mitigated or until the area is classified in such a way as to preserve Relevant - Important Values while providing opportunities for public use and enjoyment of the protected resource.

i) The BLM adopt the County criteria for Relevant - Important Values when considering lands for ACEC designation in Millard County.

j) The least restrictive visual resource management classification be used in proposed ACECs, not to be more restrictive than the VRM classification which was present at ACEC nomination.

k) Multiple-use - sustained yield concepts and commodity production continue to the maximum extent allowed by law within ACECs.

l) Prescriptive management practices be assigned to ACECs only to the extent that it has been objectively and scientifically documented that the management prescription will have a significant positive impact on enhancing the Relevant - Important Values or eliminating the threat to irreparable harm.

m) Relevant - Important Values associated with ACECs be preserved while expanding the use, enjoyment, and benefit by the public.

Policies, Goals, Objectives, Findings, and Criteria

Objective: Millard County will be proactive in the management of Areas of Critical Environmental Concern.

Policy: Millard County will support only those ACEC designations that contain demonstrated relevant and important values as defined herein that are being threatened with irreparable

damage.

Actions/Implementation:
1. Develop criteria for ACEC nomination, selection and designation.
2. Identify, evaluate, designate, and protect those relevant values discussed above.
3. Millard County will be involved in the designation and management of these areas to the maximum extent allowed by law.
4. Millard County will only support those management actions that are consistent with the County General Management Plan and the County's other land use decisions and policies.
5. Millard County will be a Cooperating Agency or Joint Lead Agency in management actions that seek to identify and designate ACECs.
6. Millard County will periodically review and compare management actions with those described in the General Management Plan and existing Ordinances for consistency.

Criteria: Relevant - Important resources are rare, unique, exemplary, significant, and deserving of special designation, protection, and use. They are outstanding, remarkable, one of kind resources that deserve special management when compared to other similar resources in the region.

Historic/Cultural
Any activity, business, district, building, structure, object, resource, or site may qualify as a Relevant - Important Historic/Cultural Resource if it is located within the official boundaries of the County, is approved by the County Commission, has been the subject of a Class 3 inventory or equivalent and at least 95% of the designated area meets one or more of the following minimum criteria:

a) The resource is of sufficient value that it is the site of public or private facilities that enhance interpretive opportunities for the public. Parks, museums, monuments, businesses, and other permanent designations qualify cultural resources for this criterion. Examples within the region of comparison include but are not limited to: Territorial Statehouse Park, Topaz WWII Internment Camp, Topaz Museum, Great Basin Museum, Fremont Indian State Park, Yuba State Park, Cove Fort, etc.

b) The resource is of sufficient value that it requires paid or volunteer staff to assist with interpretation and/or protection the resource. The presence of onsite guides, hosts, rangers, guards, specialists, or other similar staff for a minimum of 500 hours per year qualifies cultural resources for this criterion. Examples within the region of comparison include but are not limited to: Crystal Ball Cave, Territorial Statehouse Park, Cove Fort, Paiute ATV Trail, Fremont Indian State Park, etc.

c) The resource is of sufficient value that it is the subject of guided or self-guided tours promoted by land management agencies or private businesses. Resources that receive a minimum average visitation of 200 visits per month qualify for this criterion. Examples within the region of comparison include but are not limited to: Cove Fort, Territorial Statehouse Park, etc.

d) The resource is of sufficient renown that its location and nature are well known and recognizable throughout the intermountain region. Resources that have been the subject of not less than 10 statewide mass media feature articles or programs qualify for this criterion. Examples within the region of comparison include but are not limited to: Topaz Museum, Territorial Statehouse Park, Topaz WWII Internment Camp, Hole in the Rock, etc.The resource is of sufficient value that it is a site for public or private facilities that enhance interpretive opportunities for the public. Parks, museums, monuments, businesses, and other permanent designations qualify historic/cultural resources for this criterion. Examples within the region of comparison include but are not limited to: Anasazi State Park, Pipe Springs National Monument, Fremont Indian State Park, CEU Museum, American West Heritage Center, This is the Place State Park, Emery County Museum, Edge of the Cedars State Park, etc.

e) The resource value has been demonstrated to the Millard County Commission in a public hearing, and the Relevant - Important nature has been documented by a preponderance of the evidence as determined by the County Commission.

<u>Scenic</u>

a) Scenic Resources may qualify as Relevant-Important if they can be graphically described with identifiable limits and meet all of the following criteria:

1. It is located within the official boundaries of the county.
2. It is designated as Class A Scenery or equivalent.
3. It has a Scenic Quality Rating greater than 28 or equivalent.
4. It has a land form rating of 5 or equivalent.
5. It has a vegetation rating of 5 or equivalent.
6. It has a color rating of 5 or equivalent.
7. It has a scarcity rating of 5 or greater.
8. It is renown throughout the state.
9. It is the primary destination for more than 2400 visitors per year as verified by actual visitor counts.
10. All of the land proposed for designation meets all of the criteria

b) If the scenery does not meet the requirements outlined above, it may qualify for designation if it can be graphically described with identifiable limits and at least 95% of the area meets one or more of the following requirements:

1. It is a National Monument and has a Scenic Quality Rating greater than 28 or

equivalent.

2. It is part of a congressionally designated area and:
    A. Has a minimum Scenic Quality Rating 30, and
    B. Is the destination of more than 6000 visitors per year as verified by actual visitor counts.
3. It is a legislatively designated area by the State of Utah and
    A. Has a minimum Scenic Quality Rating of 28 or equivalent, and
    B. The governor of the State of Utah has requested its inclusion on the Millard County Register of Relevant-Important Cultural Resources.

Fish and Wildlife Values

Relevant - Important fish and wildlife values are those populations which are rare, special or regionally significant. Although, it may include special status species, special status species designation, in and of itself, does not meet the outstandingly remarkable/ relevant - important threshold. The minimum criteria is as follows:

a) It is on the threatened or endangered species list and is the only population of the species in the region of comparison.

b) It is identified by the Millard County Commission as an outstandingly remarkable/ relevant - important fish and wildlife value.

c) It is on the threatened/endangered species list and comprises at least 80% of the known individuals for the species within the region of comparison.

d) It is of significant public interest evidenced by at least 2000 visitors per year to the specified area with the primary purpose of enjoying the value, as confirmed by documented field surveys.

Natural System or Processes

Natural systems and processes are those conditions that are produced primarily by nature without the intent, influence or impacts of man. Given man's dominant influence over the planet and his significant role in the harmony between man and the environment, there are very few systems or processes that have not been influenced, at least in part, by man. Relevant - Important values are those systems and processes which are rare, special and significant within the region of comparison. The presence of vegetation that has been introduced or influenced by man, roads, paths, ways and trails, non-native plants, altered fire regimes, vegetation inconsistent with ecologic site conditions, livestock grazing, introduced or reintroduced wildlife, cultural/archeologic/ethnographic resources, accelerated erosion, water diversions, climate change, and alterations to air and water that have occurred since the Paleolithic age are strong indications an area does not qualify for relevant – important classification. Systems and process

that are relatively uninfluenced by man (i.e. volcanic eruptions, earthquakes, tidal activity, etc.) exemplify natural conditions. Threats associated with these values would have to be new and imminent to meet ACEC criteria established in law. To qualify for ACEC consideration in Millard County Natural Systems and Processes shall meet all of the following requirements:

a) The Natural System or Process must be endemic to the county, and its intrinsic value must be regionally recognized. Regional recognition will be evaluated on a case by case basis.

b) There must be quantifiable evidence that the threat to the Natural Process or System is of a serious nature with irreversible consequences without the protections afforded by an ACEC.

c) 95% of the land considered for ACEC designation must be free from man's influence for a period of not less than 200 years as documented by scientific proof.

d) Vegetation, wildlife, fire regimes, hydrology, and other conditions on at least 95% of the land considered for ACEC designation shall have been intact for a period of not less than 200 years as confirmed by scientific analysis.

e) The entire area considered for ACEC designation shall be free from human influenced climate change.

f) The entire area considered for ACEC designation shall be free from air quality that deviates from background levels by more than 10% at least 330 days per year.

g) For areas smaller than 160 acres, the County Commission can waive criteria listed above. For areas equal to or larger than 160 acres, the County Commission can waive criteria listed above after public hearing.

Hazards

Natural hazards include but may not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may also meet the relevance criteria if it is determined through government to government Coordination that it has become part of a natural process. Natural hazards threaten human life and are widely varied in how and where they might occur. Natural hazards in this context are much more than steep or rocky landscape features that exist in remote locations. Hazards meeting relevance/importance standards must demonstrate imminent danger as evidenced by history of accidents or the clear and obvious potential for harm. Identified hazards must occupy at least 95% of the land being considered for ACEC designation. In order to be considered for ACEC designation, natural hazards must receive the concurrence of the Millard County Sheriff and the Millard County Commission and must meet at least one of the following criteria:
a) The Natural Hazard is of significant size and scope that local resources cannot mitigate it sufficiently, completely or in a timely manner.

b) The Natural Hazard cannot be mitigated through other measures (signage, fencing, education, etc.) or efforts of the federal land management agency, county and/or state.

c) The Natural Hazard has a history of serious accidents within defined boundaries and occupies the smallest area necessary to protect the public.

d) The proposed area is limited geographically to the specific area where a change in land management policy would be highly likely to significantly improve the safety and welfare of those potentially affected.

e) The proposed area is a popular destination within the region of comparison with a history of significant accidents to visitors who may be unaware of the potential danger. Steep cliffs used by rock climbers and other features sought out by enthusiasts are not suitable for ACEC designation and should be managed under other scenarios.

f) There is a preponderance of evidence presented to the County Commission and County Sheriff that a significant, verifiable threat to human life, health and/or safety exists and ACEC designation would provide the best protection and mitigate the problem.

Additional Resources

Additional resources proposed for ACEC designation do not qualify as Relevant - Important unless they are so designated in a public action by the Millard County Commission.

Finding

The Federal Land Policy and Management Act (FLPMA) defines an ACEC as an area on public lands where special management attention 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.

Other than broad statements in the law, there are very little objective criteria for establishing ACECs. To some degree recent ACEC evaluations have been used as an attempt to create wilderness where it does not exist, or to implement prescriptive management actions on large blocks of public land.

Millard County finds that ACECs need to be identified and designated only to protect suitable, relevant and important resources. In addition there is a strong need to hold these areas to a very high standard and limited in size and number to permit the maximum opportunity for multiple-use, sustained yield, development, and for the use and enjoyment of the public at large.

Millard County is surrounded by counties that contain National Parks, National Monuments, National Recreation areas, and numerous natural wonders. The County finds that the most relevant/important scenic, cultural, and recreation lands are already protected.

Finding

Millard County also finds:

a) Large blocks of land described with general values (cultural, geologic, scenic, etc.) do not qualify for ACEC consideration. Only those values that are specific, articulable, and identifiable with specificity shall be considered for ACEC consideration.

b) Consistent BLM criteria for evaluating relevant important values associated with ACEC consideration does not exist. Millard County has developed criteria for relevant important evaluation and finds that it is the most accurate and, best criteria available when considering the custom, culture, socioeconomic base, and land designations in Millard County.

c) Agencies that have not included Millard County in all aspects of the ACEC consideration process (public notice, scoping, comment evaluation, criteria development, relevant important value evaluation, boundary determination, etc.) have failed to include the County as a cooperating agency at the earliest possible date, have failed to Coordinate, have been inconsistent with Millard County's land management plans, and have not complied with federal law.

d) There are six (6) ACECs within Millard County as of January 2017 and designation of ACECs contrary to criteria established in Millard County's General Management and Resource Management Plans or without the concurrence of the Millard County Commission is inconsistent with the County's plan and violates Federal and State law.

4.3.4 WILDERNESS STUDY AREAS

Current Setting

Wilderness Study Areas are those lands identified in the initial phase of the wilderness process as possibly having wilderness values. WSAs were the subject of an intense study phase, which resulted in agency recommendations for areas deemed as suitable segments to be considered by Congress for wilderness. In 1984 the Congress acted on Forest Service recommendations in Utah, but action on National Park Service and BLM lands has not been taken. WSAs are technically limited to BLM lands. However, interim management prescriptions for BLM and Park Service lands are very similar, if not identical, so they will both be discussed under the heading of WSAs.

In the 1970s and 1980s the National Park Service and BLM completed studies that were a subsequent phase of a thorough and professional inventory process that ensured no valid basis for questioning wilderness inventory results. The intent of the initial inventory was to carry

forward for additional study any lands that may have possibly contained wilderness characteristics. The inventory process was done in an objective professional manner prior to the time when emotion, politics, and lobbying interests drove the wilderness process. BLM submitted their final recommendation in 1991. In the mid-1990s Secretary Babbitt initiated efforts to re-evaluate the objective recommendations submitted previously by Department of the Interior agencies and initiated a process to expand wilderness recommendations.

Court action to stop the process was initiated. The courts found that the wilderness recommendation process had ended and that no additional recommendations could be forwarded to Congress. However, the courts also found that federal agencies could inventory resources on their lands, including wilderness characteristics. The 1990s effort directed by Secretary Babbitt was politically driven and motivated by special interests. As a result it lacked the objectivity, professionalism, and integrity of previous studies and original recommendations.
As part of the original study phase, the BLM identified approximately 294,000 acres of land in Millard County suitable for additional study as WSAs. The Millard County Master Plan of 1999 proposed that 30,100 acres of BLM lands in six WSAs be designated wilderness. That recommendation was re-evaluated in 2006. In the subsequent evaluation Millard County identified 138,606 acres as suitable for wilderness designation. BLM recommended two areas not be designated as suitable for WSAs – these two WSAs are the Conger and King Top areas, comprising approximately 113,111 acres. BLM concurred that these two areas not be designated WSAs. Congress has taken no action to delist Conger or King Top WSAs.

In 2007 the Millard County Commission undertook a review of wilderness recommendations by BLM and concurred with federal findings that no lands in Millard County are suitable for Wilderness Study Areas and all lands in the County should be released from further consideration.

Need for Management Change

1. Wilderness Study Areas were the subject of a lengthy intense effort directed by the Wilderness Act of 1964. The *Utah Statewide Wilderness Final Environmental Impact Statement* identified BLM lands and portions of WSAs that did not have wilderness characteristics. Those lands identified as lacking wilderness characteristics need to be released from prescriptive management and returned to multiple-use management.

2. The intense study phase identified numerous man made intrusions, roads, ways, and other features on BLM lands that were incompatible with wilderness character. Other features, of a similar nature, were missed all together. All roads, ways, and man-made features (including features that were not properly inventoried, vegetative changes, introduced/reintroduced species, etc.) which existed at the time of the final EIS, need to be shown on maps, resource inventories

and in land use management plans until Congress resolves the wilderness issue.

3. Millard County holds numerous rights-of-way over non-federal lands inside federal boundaries. Access to these rights is assured through the "Cotter Decision". Access to State Trust lands, County rights-of-way, and other non-federal rights in areas considered for wilderness protection need to be clearly identified, evaluated and, to the maximum extent allowed by law, resolved as part of any land use planning process which could affect valid and/or existing rights.

4. The *Utah Statewide Wilderness Final Environmental Impact Statement* identified numerous roads and ways in and outside WSAs. Roads and ways that are identified in areas that lack outstanding wilderness characteristics need to be maintained. Issues associated with roads and ways in areas that contain outstanding wilderness characteristics need to be resolved. Millard County and land managers need to initiate a process to identify, evaluate, and resolve road, way, and related issues through Government to Government Coordination.

5. Roads and ways inside and outside WSAs need to be managed as "limited" or "open" until agreement between land management entities and Millard County regarding their ultimate use is reached. When mutual agreement is reached to close a route, Millard County needs to complete the abandonment process in accordance with State Law.

6. Millard County has identified portions of WSAs recommended for wilderness that it believes qualify for wilderness designation. The identified lands need to be designated as wilderness, and other lands need to be released from consideration and returned to management as directed by agency regulation and the Millard County Land Use Plan.

7. Safe all weather access, solid waste collection and disposal, human waste collection and disposal, search and rescue access, emergency medical access, and law enforcement access need to be provided for all Wilderness Study Areas in Millard County.

Desired Condition

Millard County desires:

a) All WSAs recommended Wilderness Areas that have not been found to be suitable for wilderness designation by Millard County be released from prescriptive management practices associated with wilderness protection.

b) WSAs that were not identified as part of the Paramount or Recommended Proposals in the 1991 Final Wilderness EIS be released from prescriptive management and returned to use in accordance with Millard County's Land Use Plan.

c) Federal Planning documents and revisions include maps, data, classifications, depicting VRM classes, oil and gas management, rights-of-way, intrusions on the land, impacts by man, roads and ways, and other features that disqualified lands in Millard County from wilderness consideration at the time the Final Wilderness Environmental Impact Statement was published in 1991.

d) The VRM classifications, oil and gas management, roads and ways analysis, and other inventories that disqualified lands from wilderness consideration at the time of the initial inventory be considered the base line/no action condition for the BLM planning process.

e) All roads, paths, and ways that exist in Millard County be included in planning documents, NEPA analysis, and maps for all federal projects.

f) The BLM include Millard County assertions for roads and ways in any planning document or NEPA analysis that considers lands recommended for wilderness management.

g) Federal agencies and the County Coordinate efforts to eliminate the creation of unauthorized routes.

h) Access to County rights-of-way over and across non-Federal lands inside WSAs be addressed in the first/earliest planning document or NEPA analysis considering such lands.

i) Documented and identified rights-of-way, access to the County's rights-of-way, and access over WSA lands to the County's rights-of-way held within WSAs be resolved. The access needs to be of sufficient scope and width to permit transportation facilities meeting AASHTO Standards.

(j) Range improvements and other man-made intrusion on lands in Millard County be maintained in the condition that existed at the time the improvement was constructed, the wilderness inventory was conducted, the date of the adoption of the Final Wilderness EIS, or that currently exists, whichever is the highest condition.

(k) Federal agencies adopt Millard County's Land Use Management Classifications and all lands in the County be released from interim management protection or future wilderness consideration.

l) Federal agencies reduce the burden on County services and resources associated with law enforcement, search and rescue, emergency medical services, solid waste collection and disposal, and human waste collection and disposal associated with WSA and lands recommended for

wilderness.

m) Federal agencies improve access and parking, provide registration boxes, provide dumpsters for solid waste collection and disposal, and provide sanitary facilities for human waste collection and disposal at known access points and trailheads adjacent to WSAs and lands with wilderness character.

n) Federal agencies Coordinate with the County in developing best management practices and response procedures to eliminate unauthorized motorized access in WSAs and lands recommended for wilderness designation.

o) No additional lands be managed for wilderness character until the lands Millard County has identified as suitable for wilderness designation have been so designated and the lands identified by the BLM as not being suitable under the Recommended or Paramount Proposal be released from prescriptive management, inasmuch as the BLM is currently managing for wilderness character lands that it has determined are not suitable/recommended as wilderness

Policies, Goals, Objectives, and Criteria

Criteria: Vegetative Manipulations - The simple fact that an area has undergone vegetative manipulations sometime in the past does not automatically disqualify a unit or a portion of the unit from a wilderness consideration. Whether the manipulation is substantially noticeable and the imprint of man depends on its age, extent, condition, etc. In order to provide consistency with federal planning regulations and with Millard County's General Management and Resource Management Plans the following criteria is established. The criteria provides a consistent, objective, rational evaluation standard.

Age - Vegetative manipulations where the last manipulation, treatment, or impact by man is older than 100 years may be considered substantially unnoticeable, if no stumps, scars, piles, or any other impacts are present.

Extent - Any vegetative manipulation that has an extent less than 5000 square feet may be considered substantially unnoticeable.

Condition - A vegetative manipulation is considered substantially unnoticeable if after evaluating three random samples not less than 200 square feet inside the manipulated area and three random samples not less than 200 square feet outside the manipulated area on the following criteria are met:

a) If percentage composition for each species inside the manipulated area is within 3% of the

composition for each type of species outside of the manipulated area;

b) If estimated age for 97% of the individuals in each species in the manipulated area are within two years of age for the individuals of the same species in the non-manipulated area;

c) If the species populations within the manipulated area are not less than 95% nor more than 105% of the species populations in the non-manipulated area;

d) If the species size in the manipulated area is not less than 95% or more than 105% of the height of the species in the non-manipulated area;

e) If the manipulated area is free from exotic or non-native species that are absent in the non-manipulated area; and

f) If the boundary between the manipulated area and the non-manipulated area is indistinguishable.

Objective: Complete the wilderness process in Millard County.

Policy: It is Millard County's policy to support Wilderness designation only for lands the County has deemed eligible and suitable for Wilderness under Public Law 88-577. The County's determination of lands in Millard County that are eligible for WSA consideration is consistent with BLM determinations made in the intense study phase of the wilderness evaluation process and is deemed valid.

It is Millard County's policy to oppose Wilderness designation and/or management for wilderness characteristics on lands the County and BLM have deemed are not eligible and suitable for Wilderness designation under Public Law 88-577.

It is Millard County's policy, to the maximum extent allowed by law, that all lands deemed not eligible and suitable for Wilderness designation and/or management for wilderness characteristics be released from prescriptive management and returned to commodity production or multiple-use/sustained yield management.

It is the policy of Millard County to work cooperatively with land managing agencies, the State of Utah, and Utah's Congressional Delegation to have the lands identified through the County review, study and recommendation process appropriately designated and managed.

Actions/Implementation:

1. Work with State Legislature to gain State support for adopting the plans approved by the County Commission associated with wilderness, WSAs and wilderness characteristics.
2. Work with and assist the Utah Congressional Delegation in drafting a wilderness bill that will support the county position for wilderness designation, including release language for lands not recommended for Wilderness designation.

Policy: The County agrees that some public lands may need specific restrictions, but it asserts those restrictions should be the minimum necessary and should be developed in a spirit of cooperation, assuring the greatest use and enjoyment by the public and local residents.

Specific concerns include:

a) Additional strain on County emergency services and law enforcement caused by restrictive federal land use decisions.

b) Unreasonable restrictions on existing and potential consumptive uses of public lands.

c) Unreasonable wildlife and wildlife habitat management schemes.

d) Unsubstantiated campsite, human and animal numbers, as well as, use regulations and restrictions.

e) Access, including but not limited to, road maintenance, maintenance of livestock and wildlife facilities, diversions, monitoring facilities and water resource, and other capital improvements.

f) Undue restriction on lands classified as crucial/critical habitat.

It is the position of the County that these concerns be specifically and adequately identified and addressed for any lands considered for future WSA status.

Criteria: Lands may be deemed eligible and suitable for future Wilderness Study Areas only if they meet all of the following criteria, as applicable:

a) Identified as Wilderness Study Area by the Bureau of Land Management in 1981;

b) Identified as primitive on Millard County's Recreation Opportunity Spectrum or qualify as primitive in Forest Service / BLM Recreation Opportunity Spectrum criteria;

c) Identified in Bureau of Land Management's Wilderness Final EIS as having outstanding wilderness characteristics in the Recommended or Paramount Wilderness Proposal; and

d) Approved by the Millard County Commission after appropriate public hearing.

Policy: Areas identified in the Utah BLM Statewide Wilderness Final Environmental Impact Statement as failing to meet outstanding solitude or primitive recreation standards shall not be managed for primitive or semi-primitive non-motorized recreation.

Findings: As part of the Wilderness Act of 1964, an inventory was required of all federal lands for wilderness values. In compliance with administrative directives, the BLM considered any land greater than 5000 acres in size that was roadless and could possibly contain wilderness values for additional study. These areas became known as Wilderness Study Areas. The standard was held to a minimum, so no potential wilderness was missed.

Millard County finds:

a) The BLM determined WSAs in Millard County failed to meet standards for outstanding solitude or outstanding opportunities for primitive recreation required for wilderness designation.

b) The process identified all lands that could possibly contain wilderness values meeting criteria of the Wilderness Act and that all other lands evaluated by the BLM in Millard County clearly and obviously lacked wilderness character.

c) Some of Millard County's WSAs failed to meet minimum criteria necessary to be designated as wilderness.

d) Millard County accepts data presented in the BLM's 1990 Statewide Wilderness Final Environmental Impact Statement as the most detailed analysis of wilderness characteristics. Millard County asserts its finding that the identified 138,606 acres located within the existing six WSAs is the maximum amount of BLM land in Millard County that is suitable for wilderness.

e) The BLM failed to compare its resources with similar resources in other areas of the region when considering outstanding opportunities for solitude and primitive recreation in studies conducted after 1990.

f) Only those lands classified as Recreation Ia - Wilderness in Millard County's Land Use Management Policy are suitable for wilderness/WSA designation.

g) Those lands classified as Recreation Ib- Near Wilderness may be suitable for some level of preservation if properly Coordinated with the County Commission. All other lands in the County are not suitable for protection of WSA values.

h) The BLM failed to identify all motorized roads, paths, ways, and trails within its lands.

i) Unless the BLM can specifically document construction occurred after WSA designation, the BLM conducted business in accordance with its responsibility to protect WSAs and existing roads, paths, ways, and trails were missed in its original inventory.

j) Intrusions in WSAs that were missed in BLM's original study can be verified through historical data, including maps, personal knowledge, affidavits, surveys, deductive reasoning, and other verifiable means

k) The BLM conducted business in accordance with its responsibility in the wilderness intense inventory phase and the determination that lands clearly and obviously lacked wilderness characteristics was valid.

4.3.5 NATIONAL TRAILS

Current Setting

In 1968, Congress passed the National Trails System Act. The intent of the Act was to provide for outdoor recreation needs and promote the enjoyment, appreciation, and preservation of open-air outdoor areas and historic resources, and to encourage public access and citizen involvement.

A 2006 Memorandum of Understanding (MOU) directs federal agencies to cooperate in the management of National Public Trails by giving direction to enhance visitor satisfaction, coordinate trail wide administration and site specific management, protect the resource, promote cultural values, foster cooperative relationships, share technical expertise, and to fund lands and resources associated with the National Trails. The MOU recognizes the critical role of local government in National Trail administration and management.

The Regional Forester also recommends National Recreation Trails. No National Recreation Trails currently exist in Millard County.

Need for Management Change

1. Consideration of any potential National Trails needs to be fully Coordinated with the Millard County Commission and needs to be consistent with Millard County's Transportation Plan and OHV ordinance.
2. National Trails need to be managed to maximize use and enjoyment of designated trails and to develop opportunities to improve socioeconomic impacts to the County.
3. Safe all weather access, solid waste collection and disposal, human waste collection and disposal, search and rescue access, emergency medical access, and law enforcement access need

to be provided for all National Trails.

Desired Condition
Millard County desires:
a) National Trails only be designated in situations that will enhance interpretation, use, and enjoyment of the County's resources.

b) National Trails only be designated with the concurrence and support of the Millard County Commission.

c) National Trails utilize existing routes and corridors or parallel such corridors, to the extent practical.

d) Prior to designation, National Trails are analyzed for impacts to County services and such impacts are mitigated.

e) Any National Trail designated in the County enhances socioeconomic vitality, community viability, custom and culture in the County.

Policies, Goals, Objectives, and Criteria

Policy: It is the policy of Millard County to consider each proposed trail on a case by case basis, considering other values that might be affected by designation - subject to goals and objectives of the Millard County General Management and Resource Management Plans and demonstrated need including Outstanding Remarkable Values emphasized by designation.

Objective: Coordinate and work in a cooperatively with State and Federal agencies to consider and designate suitable trails for the National Trails System.

Action/Implementation: The County will review proposed actions. A consistency review will be done for purposes of compliance with local law, ordinances, planning, etc. Agencies making the proposal may solicit the support of local community leaders. Upon completion of the review process by the Public Lands Steering Committee and community leaders, the County Commissioners will either accept the recommendation(s) of the group, modify them, and/or reject them.

4.3.6 WILD AND SCENIC RIVERS

Current Setting

The Wild and Scenic Rivers Act of 1968 created the National Wild and Scenic Rivers System. The purpose of the Act was to preserve in their free-flowing conditions, certain selected rivers of the nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. The Act directed federal agencies to consider the potential for National Wild, Scenic, and Recreational River areas in all planning for the use and development of water and related land resources. Rivers, or sections of rivers, so designated are preserved in their free-flowing condition and are not dammed or otherwise impeded. National wild and scenic designation essentially vetoes the licensing of new hydropower projects on or directly affecting the river. It also provides very strong protection against bank and channel alterations that adversely affect river values, protects riverfront public lands from oil, gas and mineral development, and creates a federal reserved water right to protect flow-dependent values.

The Wild and Scenic River Act identifies three classes of rivers:

a) Wild Rivers: Rivers or river sections free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

b) Scenic Rivers: Rivers or river sections free of impoundments with watersheds still largely primitive and shorelines largely undeveloped but accessible in place by roads.

c) Recreational Rivers: Rivers or river sections readily accessible by road or railroad that may have some development along their shorelines and that may have undergone some impoundment or diversion in the past.

The Wild and Scenic River (WSR) review process was incorporated into planning efforts for the Fishlake National Forest in their planning efforts circa 2007. The results of the eligibility study were published as a Record of Decision / Forest Plan Amendment, 2008. No eligible streams were found in Millard County. No record of Wild and Scenic River evaluations for the BLM Fillmore Field Office is known to exist.

Forest Service units in Utah conducted suitability analysis for eligible segments within their boundaries and identified what they consider eligible segments. The decisions were followed by recommendations to congress for inclusion in the Wild & Scenic Rivers program. Review of federal plans and recommendations reveals significant inconsistencies between agency determinations regarding eligibility of potential Wild and Scenic River segments and requirements of the Wild & Scenic Rivers Act. Review of National Forest Wild and Scenic

River Reports indicated the documents were often replete with subjective conclusions, biased misconceptions, and undocumented judgements. Evaluation efforts by the various BLM field offices prior to 2007 adopted criteria from other BLM agencies which failed to consider County policies related to Outstanding Remarkable Values and other river segments in the region of comparison.

The Wild and Scenic River evaluation developed as part of this County planning process, considers criteria applicable to Millard County and is consistent with federal law across Forest Service and BLM boundaries.

Forest Service The Record of Decision and Forest Plan Amendment, Wild and Scenic River Suitability Study for National Forest System Lands in Utah signed by the Fishlake National Forest supervisor in November, 2008 does not recommend any river segments in Millard County as suitable for inclusion in the WSR system. The recommendation that no river segments are eligible for inclusion in the system is supported by the Millard County Commission and is consistent with Millard County's plan, policy and program.

Bureau of Land Management

Wild and Scenic River suitability evaluations for BLM lands in Millard County have not been conducted as of January, 2016. No rivers in Millard County have been evaluated or found eligible or suitable for WSR recommendation or designation. All eligible rivers or streams in Millard County are currently managed for other purposes in accordance with the authorized land use plans.

Need for Management Change

There are no congressionally designated Wild and Scenic River segments in Millard County as of January 2016.

1. Millard County needs to be involved in all phases of study for Wild and Scenic River designations including eligibility, suitability, and recommendation phases. This includes cooperating agency status prior to any public scoping and Government to Government Coordination throughout the entire process. All federally recommended segments in the County must be consistent with the County Resource Management Plan and have County Commission concurrence prior to final recommendations going forward or final disposal.

2. No objective or consistent federal criteria exists for evaluating outstandingly remarkable values associated with potential Wild and Scenic River recommendations. Recent proposals have been evaluated for values loosely defined as "scenic," "historic," "fish," or "cultural." Outstandingly remarkable values need to be identifiable, articulated, mapped, and distinctly

characterized. Outstandingly remarkable values for which a Wild and Scenic River proposal is considered must meet criteria identified below.

3. There are no specific requirements concerning minimum flow for an eligible / suitable Wild and Scenic River segment. However, flows need to be capable of creating or sustaining outstandingly remarkable resources and sufficient to make the river a worthy addition to the National System. Minimum flow requirements need to meet the criteria identified below. In addition, analysis needs to be conducted to determine if proposed outstandingly remarkable values are dependent on or influenced by existing flows.

4. Wild and Scenic River recommendations need to be limited to the smallest area necessary to protect outstandingly remarkable values. At least 95% of any land considered for Wild and Scenic River eligibility needs to meet outstandingly remarkable criteria for which the Wild and Scenic River is being considered. Areas not meeting outstandingly remarkable criteria need to be eliminated from Wild and Scenic River consideration.

5. Criteria for evaluating eligibility and suitability for Wild and Scenic Rivers needs to be consistent to the maximum extent allowed by law with criteria established in the Millard County General Management Plan. It also needs to be consistent across federal agency and political jurisdiction boundaries.

6. Millard County needs to be specifically sought out to recommend candidate segments for inclusion in the Wild and Scenic River System.

7. Review of federal plans and recommendations reveals significant inconsistencies between agency determinations regarding eligibility of potential Wild and Scenic River segments and requirements of the Wild & Scenic Rivers Act. Review of various federal documents indicates reports are replete with subjective conclusions, biased misconceptions, limited comparative analysis, and undocumented judgements. Evaluation efforts by some BLM field offices adopted criteria from other BLM agencies which failed to consider individual counties' comparative relationship to Outstanding Remarkable Values with other river segments in the region of comparison. WSR reviews, analysis and recommendations need to focus on objective verifiable criteria and on properly assessing the regional and national value of local streams. Agencies need to recognize above average values for a particular ranger district or field office do not qualify a stream segment for outstanding / remarkable classification when considering regional values.

8. Agencies should not consider silence in County plans or lack of vehement opposition as support for WSR designation. Unless expressly supported by the County Commission, federal agencies should deem silence on a proposal as a lack of support.

9. Lack of commitment from public volunteers and partnerships and/or lack of stewardship commitments for management and/or funding of WSR river segments needs to be viewed as opposition rather than support.

Desired Condition

Millard County desires:

a) Only river segments listed in the Millard County Wild and Scenic River Recommendation be included in the Wild, Scenic, and Recreational Rivers System subject to concurrence from affected agencies. At present, no river segments have been proposed by Millard County.

b) A bill be drafted designating rivers listed by the respective Counties adopting the local Wild and Scenic River Recommendations, subject to concurrence from affected agencies.

c) Evaluation of rivers in the Millard County for Wild and Scenic River Recommendation completed the process within the County and no further consideration or attempt by federal agencies be made to designate other stream channels without County participation and concurrence. Any attempts to do so will be considered a violation of local law.

d) The effects of eliminating flow on Outstandingly Remarkable Values be analyzed as part of the eligibility criteria. If it is found that reduction or elimination of flow has no impact on the Outstandingly Remarkable value, then the value be declared not river related and dropped from consideration under the Wild and Scenic Rivers Act.

e) River segments be consistent with the National expectations for criteria for Wild and Scenic Rivers. Segments, which have a minimum volume of 40 cubic foot per second with a minimum flow area of 80 square feet or a minimum width of 40 feet for at least 360 days per calendar year, are found to meet National expectations.

f) Wild and Scenic River Recommendations comply with Millard County's criteria for Outstandingly Remarkable Values.

Policies, Goals, Objectives, and Criteria

Policy: It is Millard County's policy that, once undertaken, all Wild and Scenic River evaluations be completed through the Suitability stage. It is Millard County's policy to support only those river segments which meet the quality standards set forth by the County in a public supported process.

Objective: Develop reasonable criteria for evaluating suitability and eligibility standards from which all recommendations for inclusion as a wild, scenic or recreational rivers will be based.

Actions/Implementation:
1. Work with the local Planning Commission to gain support for designating only those rivers approved for Wild & Scenic River designation by the local County Commissioners.
2. Work with State Representatives to gain State support for only those rivers approved by the County Commissioners for Wild & Scenic River designation.
3. Work with and assist the Utah Congressional Delegation in drafting a Wild & Scenic River bill that will support the County positions for Wild & Scenic River designation, including release language for all other rivers not recommended for Wild & Scenic River designation.

Criteria: The following criteria will be applied to evaluate eligibility and suitability for proposed Wild & Scenic Rivers in Millard County.

Outstandingly Remarkable Resources are rare, unique, exemplary, significant, and deserving of special designation, protection, and use. They are outstanding, remarkable, one of kind resources that deserve special management when compared to other similar resources in the region.

Historic/Cultural -
Any activity, business, district, building, structure, object, historical/cultural resource, or site may qualify as an Outstandingly Remarkable Cultural Resource if it is located within the official boundaries of the County, has been the subject of a Class 3 cultural resource inventory, is approved by the County Commission, and at least 95% of the designated reach meets one or more of the following minimum criteria:

a) The resource is of sufficient value that it is the site of public or private facilities that enhance interpretive opportunities for the public. Parks, museums, monuments, businesses, and other permanent designations qualify cultural resources for this criterion. Examples within the region of comparison include but are not limited to: Territorial Statehouse Park, Topaz WWII Internment Camp, Topaz Museum, Great Basin Museum, Fremont Indian State Park, Yuba State Park, Cove Fort, etc.

b) The resource is of sufficient value that it requires paid or volunteer staff to assist with interpretation and/or protection the resource. The presence of onsite guides, hosts, rangers, guards, specialists, or other similar staff for a minimum of 500 hours per year qualifies cultural resources for this criterion. Examples within the region of comparison include but are not limited to: Crystal Ball Cave, Territorial Statehouse Park, Cove Fort, Paiute ATV Trail, Fremont Indian State Park, etc.

c) The resource is of sufficient value that it is the subject of guided or self-guided tours promoted by land management agencies or private businesses. Resources that receive a minimum average visitation of 200 visits per month qualify for this criterion. Examples within the region of comparison include but are not limited to: Cove Fort, Territorial Statehouse Park, etc.

d) The resource is of sufficient renown that its location and nature are well known and recognizable throughout the intermountain region. Resources that have been the subject of not less than 10 statewide mass media feature articles or programs qualify for this criterion. Examples within the region of comparison include but are not limited to: Topaz Museum, Territorial Statehouse Park, Topaz WWII Internment Camp, Hole in the Rock, etc. The resource is of sufficient value that it is a site for public or private facilities that enhance interpretive opportunities for the public. Parks, museums, monuments, businesses, and other permanent designations qualify historic/cultural resources for this criterion. Examples within the region of comparison include but are not limited to: Anasazi State Park, Pipe Springs National Monument, Fremont Indian State Park, CEU Museum, American West Heritage Center, This is the Place State Park, Emery County Museum, Edge of the Cedars State Park, etc.

e) The resource value has been demonstrated to the Millard County Commission in at a public hearing and the Outstandingly Remarkable nature has been documented by a preponderance of the evidence as determined by the County Commission.

Scenic-

a) Scenic Resources may qualify as Outstandingly Remarkable if they can be graphically described with identifiable limits and meets all of the following criteria:

1. It is located within the official boundaries of the County.
2. It is designated as Class A Scenery or equivalent.
3. It has a Scenic Quality Rating greater than 28 or equivalent.
4. It has a land form rating of 5 or equivalent.
5. It has a vegetation rating of 5 or equivalent.
6. It has a color rating of 5 or equivalent.
7. It has a scarcity rating of 5 or greater.
8. It is renown throughout the state
9. It is the primary destination for more than 2400 visitors per year as verified by actual visitor counts.
10. All of the land proposed for designation meets all of the criteria

b) If the scenery does not meet the requirements outlined above, it may qualify for designation if it can be graphically described with identifiable limits and at least 95% of the area meets one of the following requirements:

1. It is located in a National Park, National Recreation Area, or National Monument administered by the National Park Service and has a Scenic Quality Rating greater than 28 or equivalent.
2. It is part of a congressionally designated area and:
A. Has a minimum Scenic Quality Rating 30, and
B. Is the destination of more than 6000 visitors per year as verified by actual visitor counts.
3. It is a legislatively designated area by the state of Utah and
A. Has a minimum Scenic Quality Rating of 28 or equivalent, and
B. The governor of the State of Utah has requested its inclusion on the Millard County Register of Outstandingly Remarkable Cultural Resources.

Fish and Wildlife Values -
Outstandingly remarkable fish and wildlife values are those populations which are rare, special or regionally significant. Although, it may include special status species, special status species designation, in and of itself, does not meet the outstandingly remarkable/ relevant - important threshold. The minimum criteria is as follows:

It is on the threatened or endangered species list and is the only population of the species in the region of comparison. It is identified by the Millard County Commission has an outstandingly remarkable/ relevant - important fish and wildlife value.

It is on the threatened/endangered species list and comprises at least 80% of the known individuals for the species within the region of comparison.

It is of significant public interest evidenced by at least 2000 visitors per year to the specified area with the primary purpose of enjoying the value, as confirmed by documented by field surveys.

Natural System or Processes
Natural systems and processes are those conditions that are produced primarily by nature without the intent, influence or impacts of man. Given man's dominant influence over the planet and his significant role in the harmony between man and the environment, there are very few systems or processes that have not been influenced, at least in part, by man. Outstandingly Remarkable Values are those systems and processes which are rare, special and significant within the region of comparison. The presence of vegetation that has been introduced or influenced by man, roads, paths, ways and trails, non-native plants, altered fire regimes, vegetation inconsistent with ecologic site conditions, livestock grazing, introduced or reintroduced wildlife, modern cultural/archeologic/ethnographic resources, accelerated erosion, water diversions, climate change, and alterations to air and water that have occurred since the Paleolithic age are strong indications an area does not qualify for Outstandingly Remarkable classification. Systems and

process that are relatively uninfluenced by man (i.e. volcanic eruptions, earthquakes, tidal activity, etc.) exemplify natural conditions. To qualify for Wild & Scenic River consideration in Millard County Natural Systems and Processes shall meet all of the following requirements:

a) The Natural System or Process must be endemic to the county, and its intrinsic value must be regionally recognized. Regional recognition will be evaluated on a case by case basis.

b) There must be quantifiable evidence that there is a serious threat to the Natural Process or System with irreversible consequences unless the protections afforded by WSR designation are imposed.

c) 95% of the land considered for WSR designation must be free from man's influence for a period of not less than 200 years as documented by scientific proof.

d) Vegetation, wildlife, fire regimes, hydrology, and other conditions on at least 95% of the land considered for WSR designation shall have been intact for a period of not less than 200 years as confirmed by scientific analysis.

e) The entire area considered for WSR designation shall be free from human influenced climate change.

f) The entire area considered for WSR designation shall be free from air quality that deviates from background levels by more than 10% at least 330 days per year.

g) For areas smaller than 160 acres, the County Commission can waive criteria listed above. For areas equal to or larger than 160 acres, the County Commission can waive criteria listed above after public hearing.

Hazards

Natural hazards include but may not limited to areas of avalanche, rapids, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs. A hazard caused by human action may also meet the Outstandingly Remarkable criteria if it is determined through Government to Government Coordination that it has become part of a natural process. Natural hazards threaten human life and are widely varied in how and where they might occur. Natural hazards in this context are much more than flashy, fast flowing or deep waters that exist in remote locations. Hazards meeting relevance/importance standards must demonstrate imminent danger as evidenced by history of accidents or the clear and obvious potential for harm. Identified hazards must occupy at least 95% of the land being considered for WSR designation. In order to be considered for WSR designation, natural hazards must receive the concurrence of the Millard County Sheriff and the Millard County Commission and must meet at least one of the following criteria:

a) The Natural Hazard is of significant size and scope that local resources cannot mitigate it sufficiently, completely or in a timely manner.

b) The Natural Hazard cannot be mitigated through other measures (signage, fencing, education, etc.) or efforts of the federal land management agency, county and/or state.

c) The Natural Hazard has a history of serious accidents within defined boundaries and occupies the smallest area necessary to protect the public.

d) The proposed area is limited geographically to the specific area where a change in land management policy would be highly likely to significantly improve the safety and welfare of those potentially affected.

e) The proposed area is a popular destination within the region of comparison with a history of significant accidents to visitors who may be unaware of the potential danger. Streams prone to flash floods, rapids, deep water, and other common features sought out by enthusiasts are not suitable for WSR designation and should be managed under other scenarios.

f) There is a preponderance of evidence presented to the County Commission and County Sheriff that a significant, verifiable threat to human life, health and/or safety exists and WSR designation would provide the best protection and mitigate the problem.

Additional Resources

Additional Resources that are considered as the basis of a Wild and Scenic River designation do not qualify for Outstandingly Remarkable status unless they meet one of the criteria above or are designated in a public action by the Millard County Commission.

Findings: The National Wild and Scenic Rivers System was created by the Wild and Scenic Rivers Act of 1968. The purpose of the Act was to preserve in their free-flowing conditions, certain selected rivers of the nation which with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. The Act directed federal agencies to consider the potential for National Wild, Scenic and Recreational River areas in all planning for the use and development of water and related land resources.

Millard County's Wild and Scenic River (WSR) review process incorporated planning efforts of the Fishlake National Forest. No analysis for the BLM Fillmore Field Office was available. The Fishlake National Forest eventually concluded no river segments in Millard County were suitable for WSR designation. BLM has made no recommendations as of January, 2016.

Millard County finds, through review of Management Plans and cooperation with federal agencies in that inconsistencies exist between federal agencies regarding application of the Wild and Scenic River Act. Millard County also finds only the County's evaluation provides consistent criteria across agency boundaries. Appropriate Wild and Scenic River recommendations have been developed as part of the Millard County planning process which

consider criteria applicable to Millard County, comparative analysis that considers other rivers in the region of comparison and that are consistent across all jurisdictional boundaries.

Finding: Millard County also finds:

a) Criteria and processes used for evaluating Wild and Scenic Rivers are inconsistent between Federal agencies and between agency offices.

b) Application of Outstandingly Remarkable Criteria by the Forest Service and BLM fails to appropriately consider resources in the County and in the broader region of comparison. Millard County opposes the notion that every agency office has resources that are Outstandingly Remarkable.

c) Federal agencies have failed to maintain an appropriate standard for evaluating Outstandingly Remarkable Values.

d) The most consistent, reliable criteria is the criteria established in the Millard County Resource Management Plan.

Finding: The Millard County Commission has found no river segments eligible and suitable under the Wild and Scenic Rivers Act for WSR recommendation or designation. However, Millard County will review additional proposals for designation under the Wild and Scenic Rivers Act in accordance with criteria listed above as they are brought forth in federal planning processes.

Finding: Federal agencies' recommendations for including river segments in the WSR system without express support and commitment of the Millard County Commission is a failure to cooperate and Coordinate with local government and creates conflict and controversy between the federal and local government.

4.3.7 BACKCOUNTRY/ROADLESS/PRIMITIVE AREAS

Current Setting

Backcountry/Roadless/Primitive areas are specifically identified land where multiple-use and sustained yield management has resulted in semi-primitive conditions. Properly designated, these areas are established to temporarily promote semi-primitive non-motorized recreation opportunities, generally in areas where more outstanding opportunities are not present. In

Millard County, land managers have used this designation to incorrectly apply wilderness protections to lands that would otherwise be suited for multiple-use. In an effort to lower the qualifying standard for these areas, the Forest Service developed protocols classifying areas containing primitive, unclassified, and or unauthorized roads as roadless. As a result, the Forest Service considers management alternatives that classify semi-primitive motorized lands suitable for multiple-use management as roadless or backcountry.

In some areas of southcentral Utah, BLM also mischaracterizes lands as primitive. Expanding wilderness protection to the lands that did not qualify, some BLM plans ignore valid existing rights, unilaterally close roads, ignore recreation opportunity spectrum principles, and reduce use and enjoyment of recreational resources by classifying semi-primitive motorized or roaded natural lands as primitive. In Millard County Backcountry/Roadless/Primitive designations compound problems created by withdrawing federal lands from multiple-use management. When compared with regional congressional designations associated with the national parks, national recreation areas and national monuments, wilderness and with lands currently being managed as wilderness study areas, Backcountry/Roadless/Primitive areas lack the qualities and need for protection under the law.

Need for Management Change

1. Federal agencies in cooperation with Millard County need to identify lands set aside for primitive or semi-primitive non-motorized recreation. Lands set aside for those purposes far outweigh the need and are detrimental to other uses of public lands.

2. Millard County needs to establish standards for designating primitive, and semi-primitive non-motorized recreation areas consistent with recreational needs and desired land uses to provide consistency across agency boundaries.

3. To the maximum extent allowed by law, federal land managers need to revise the amount of land set aside for Backcountry/Roadless/Primitive Areas to be compatible with visitor use patterns in the County and to be consistent with the Millard County General Management Plan.

4. Prescriptions for lands managed for non-motorized recreation needs to allow for ongoing development of natural resource industries to the maximum extent allowed by law and as opportunities arise.

5. Backcountry/Roadless/Primitive Areas need to be compatible with the Millard County Recreation Opportunity Spectrum Analysis.

Desired Condition

Millard County desires Backcountry/Roadless/Primitive or similar areas:

a) Be designated in conformance with Millard County's Land Use Management Plan and only in areas with ROS Classification of Semi-Primitive Non-Motorized or Primitive or in areas that received specific written concurrence from Millard County Commission.

b) Be considered multiple-use lands with the backcountry recreation component being given preference only until such time that other multiple-use functions (natural resource extraction, development, commodity production, etc.) are proposed or become viable.

c) Not be designated until detailed objective analysis has been conducted demonstrating the designation will enhance socioeconomic vitality, community viability, custom, and culture of County.

d) Be accompanied by cooperative agreements identifying management and fees associated with public services including law enforcement, search and rescue, emergency medical, solid waste collection and disposal, and human waste collection and disposal.

e) Be managed in such a way that socioeconomic vitality, community viability, custom, culture, and benefit use and enjoyment of the facility by local residents are realized.

f) Give deference to other multiple-use proposals, when such proposals are considered.

g) Areas containing unclassified/unauthorized roads, ways, and trails, primitive roads, primitive campsites, vegetation treatments, logging, mining, oil and gas exploration are not eligible or suitable for Backcountry/Roadless/Primitive or similar designations.

h) In terms of future management, it is important that these areas be administered so the management techniques described above will in fact protect the desired quality of the experience. In conjunction with Millard County, design roads and trails that will provide consistent high quality access routes for motorized access to and from the areas of concern and trails that will be used to move the public into and out of the areas. At the trailheads high quality restroom facilities need to be developed and primitive restrooms need to be strategically placed in the backcountry so as not to degrade the primitive base.

Policies, Goals, Objectives, and Criteria

Goal: It is the goal of Millard County to work cooperatively with Federal land management agencies regarding designation of Backcountry/Roadless/Primitive Areas.

Policy: It is the policy of Millard County to manage only those areas identified in the Millard County General Management Plan as Rec Ib – Near Wilderness as

Backcountry/Roadless/Primitive.

Action/Implementation: The County, through use of the definitions of federal agencies, developed an inventory of lands by using a Recreation Opportunity Spectrum Analysis. Areas have been identified on the Millard County Resource Management Plan Map. The map, upon approval of the plan by the Millard County Commission, constitutes the implementation of the goals and policies and is the official decision of the County.

Policy: Any deviation from the plan, without approval of the County Commission is inconsistent with the local planning process.

Policy: Backcountry/Roadless/Primitive Areas shall be designated and managed, to the maximum extent allowed by law, in accordance with Desired Conditions stated above.

Findings: Backcountry/Roadless/Primitive areas have been initiated by Federal agencies in an effort to provide wilderness protection for lands that are not protected by the Wilderness Act and/or do not meet the criteria for wilderness.

Millard County finds:
a) Backcountry/Roadless/Primitive areas are only suitable for lands identified in the Millard County ROS Analysis as primitive or semi-primitive non-motorized.

b) Federal agencies are currently managing more than 138,606 acres for wilderness values after having determined that the lands are not recommended/suitable for wilderness.

c) Considering regional lands currently protected by Congressional Designation (Parks, Recreation Areas, Monuments, Wilderness Areas) any lands managed in Millard County for wilderness purposes greatly exceed the need and lands suitable for such management.

d) Backcountry/Roadless/Primitive areas create an undue burden on the custom, culture and socioeconomic base of the County and are generally not consistent with the policies, goals, and objectives of the County.

e) There may be a few limited instances where Backcountry/Roadless/Primitive areas are appropriate and that such areas are acceptable only in conformance with the Millard County General Management Plan and with the concurrence of the County Commission.

f) Characteristics described below for Backcountry/Roadless/Primitive areas are necessary to protect the custom, culture, socioeconomic vitality, and community viability of the County. Areas which do not comply with said characteristics are inconsistent with the Millard General

Management Plan and jeopardize the custom, culture, socioeconomic vitality, and community viability of the County.

g) Backcountry/Roadless/Primitive area's emphasis on recreation is a temporary measure.

h) Backcountry/Roadless/Primitive values have been studied, reviewed and considered for inclusion into the Millard County Resource Management Plan. Appropriate areas were considered and evaluated through the Recreation Opportunity Spectrum process.

i) The BLM has determined two of the WSAs in the Millard County region fail to have suitable characteristics to recommend them for wilderness. Yet, the BLM is continuing to manage the lands for primitive recreation. In addition, National Parks, National Recreation Area, and National Monument lands are being managed for primitive recreation as a result of enabling legislation and/or prescriptive management plans. Visitor use surveys and primitive recreation data in the region indicate a very small number and percentage of visitors participate primarily in primitive recreation. The same visitor use surveys and recreation data indicate that vast majority of visitors are primarily involved in some type of motorized recreation. In addition, OHV registration continues to rise rapidly; and federal and state agencies readily admit that OHV recreation is burgeoning. As a result, Millard County finds there is no need for Backcountry/Roadless/Primitive areas except in concurrence with the Millard County Land Use Management Plan. Millard County finds that designation of Backcountry/ Roadless/Primitive areas without County concurrence is arbitrary and capricious, creates a significant negative impact on the County's custom, culture, socioeconomic base and community viability and is inconsistent with the Millard County General Management Plan.

The following criteria describe the required setting and prescriptions for Backcountry/Roadless/Primitive areas. Unless approved by the County Commission, other settings and/or prescriptions are inconsistent with the Millard County General Management Plan:

Backcountry/Roadless/Primitive Areas are specifically identified lands where multiple-use and sustained yield management have resulted in semi-primitive conditions. These areas will be managed to promote the perceived natural appearance while continuing to fulfill multiple-use and sustained yield mandates for grazing, timber harvesting, mining, drilling, and water development in accordance with the Millard County General Management Plan.

Backcountry/Roadless/Primitive Areas shall contain and are identified to promote specific or unique recreational, ecological, or natural values. Although these may not be the only areas of the County that provide such opportunities, each Backcountry/Roadless/Primitive Areas shall offer a specific opportunity, characteristic, destination attraction, or have otherwise developed a sense of place. Backcountry/Roadless/Primitive Areas will also be used to help prioritize future

investment for a variety of multiple-use activities. Motorized access and trail development will generally be limited to those facilities that currently exist and additional facilities that are needed to enhance the area's experience or support multiple-use/sustained yield principles. Upon completion of recreational and/or multiple-use projects, human development may be removed or mitigated unless it is necessary to support recreational and multiple-use activities for that specific area. Generally, Backcountry/Roadless/Primitive Areas are restricted to meet the physical, managerial and social settings consistent with Millard County's Recreation Opportunity Spectrum analysis for primitive or semi-primitive areas. However, specific locations within Backcountry/Roadless/Primitive Areas may be managed for other recreation opportunity spectrum designations or for other resource values. Prior to implementation each Backcountry/Roadless/Primitive Area will have a project plan to include desired conditions, existing conditions, targeted activities, acceptable activities, standards and costs for public services, detailed inventories of all classified, unclassified, authorized, and unauthorized roads, paths, ways, and trails, a delineation of potential valid and existing rights, a detailed analysis covering the entire County of direct, indirect, and cumulative impacts to custom, culture, and socioeconomic base as a result of the proposed area, and Millard County concurrence.

4.3.8 SPECIAL RECREATION MANAGEMENT AREAS (SRMAs)

Current Setting

Special Recreation Management Areas are areas officially designated by statute or Secretarial order including components of the National Trails System; the National Wild and Scenic Rivers System; the National Wilderness System; National Conservation Areas, National Monuments, or National Recreation Areas; an area covered by joint agreement between the BLM and a State Government; or any area where the authorized officer determines that the resources require special management and control measures for their protection and a permit system for individual use would achieve management objectives. Special areas can be designated by the State Director through Supplementary rules.

Special Recreation Management Areas (SRMAs) are areas where special management or intensive recreation management is needed. Recreation activity plans are required, and greater managerial investment in facilities or supervision can be anticipated. The Bureau of Land Management must ensure the continued availability of public lands and related waters for diverse, resource dependent, outdoor recreation opportunities, while maintaining its commitment to managing the public lands as a national resource in harmony with the principle of balanced multiple-use. In carrying out this policy, efforts must focus on:

1) Managing the majority of the public lands for traditional dispersed recreation use, and

2) Intensively managing certain areas of the public lands were outdoor recreation as a higher priority.

This second component of recreation management is classified as Special Recreation Management Areas or SRMAs. In these areas, agencies provide a more intensive visitor management, resource protection, and facility investments. SRMAs ensure the long-term availability of areas for high-quality outdoor recreation opportunities in specific settings. Major investments in recreation facilities and visitors assistance are carried out to deal with the identified issues and concerns related to SRMAs.

There are no SRMAs within Millard County. Important recreation areas may be considered as part of future public land planning processes.

Management of Special Recreation Management Areas

1. Special Recreation Management Areas (SRMAs) need to be limited to lands that require more intense recreation management and that are targeted for recreation and socioeconomic development.

2. A financial commitment plan for SRMAs needs to be developed as part of the initial planning process.

3. Land use planning processes regarding SRMAs need to be consistent with Millard County's General Management Plan. Proposed SRMAs need to be consistent with Millard County's Recreation Opportunity Spectrum, and the establishment of SRMAs need to reflect visitor use volumes and patterns.

4. With federal policy changes for OHV use from open to limited areas, opportunities for motorized recreation have been drastically reduced. There needs to be 3% to 5% of the land in Millard County reserved for cross country/open motorized recreation. Any SRMAs if established need to accommodate, where appropriate, cross country/open motorized recreation.

Desired Condition

Millard County desires:

a) SRMAs only be established to promote specific recreation oriented resources and in accordance with desired conditions, policy, goals, objectives, and criteria described in this section.

b) Appropriate SRMAs be established to meet target values of 3% to 5% of County land reserved for cross country/open motorized recreation.

c) SRMAs be limited in size and at least 95% of the SRMA contains a specific recreational opportunity for which it was established, unless otherwise approved by the Millard County Commission.

d) SRMAs are established for motorized recreation. Areas identified as Rec Ia (Wilderness) or Rec Ib (Primitive/Semi-Primitive Non-Motorized) should not be designated as SRMAs unless specific Millard County Commission approval has been obtained.

e) Prior to planning actions designating SRMAs, detailed site-specific studies identifying impacts to socioeconomic vitality, community stability, custom and culture be completed.

f) Government to Government Coordination regarding SRMA funding packages and cooperative agreements regarding law enforcement, search and rescue, emergency medical services, solid waste collection and disposal, human waste collection and disposal, and other pertinent issues are completed.

g) SRMAs be promoted, managed, and developed to meet the minimum visitation identified below.

h) At least one all-weather road meeting AASHTO standards for a 35 mph design speed accesses all SRMAs.

i) Each SRMA contain a visitor registration box, solid waste collection receptacle, and human waste collection receptacle at the main entrance, unless otherwise approved by the County.

j) Entrance and use of SRMAs be at no charge to Millard County residents unless an alternate fee schedule is approved by the Millard County Commission.

k) Environmental Analysis regarding SRMAs consider National Parks, National Recreation Areas, and National Monuments located within the region of comparison as SRMAs when considering cumulative impacts.

l) SRMAs be developed to promote the interpretation, use, and enjoyment of natural resources by

Millard County residents and visitors.

Policies, Goals, Objectives, and Criteria

Goal: It is the goal of Millard County to establish SRMAs only for resources which significantly enhance the County's socioeconomic vitality, community viability, custom and culture while expanding agency financial, infrastructure, and management support to fully develop, use and enjoyment of the resource.

Policy: It is the policy of the County to oppose the designation of Special Recreation Management Areas where management scenarios restrict use and enjoyment of resources or where financial, infrastructure, and management commitments fail to fully develop use and enjoyment of the designated resources.

Action/Implementation: When there is an outstanding recreation value suitable for SRMA consideration it will be evaluated though interagency discussion, consideration by the Public Lands Steering Committee, or public hearings prior to approval by the Millard County Commission.

Policy: Areas are not eligible for SRMA designation unless the area meets the following criteria:

Size	0 to 40 acres
Minimum Visitation	No requirement
Comments	County concurrence required; 8 per agency maximum
Size	40 to 320 acres
Minimum Visitation	Average 10 visitors per day for at least 90 days per year.
Comments	County concurrence required
Size	320 acres to 2000 acres
Minimum Visitation	Average 25 visitors per day for at least 120 days per year.
Comments	County concurrence required
Size	Greater than 2000 acres
Minimum Visitation	Average 1 visitor/day/each 80 acres for at least 120 days/yr.
Comments	County concurrence required

Policy: SRMAs are inconsistent with primitive recreation because SRMAs require intense management, increased facilities, and investments that impact the land. These requirements

conflict with the concepts of primitive recreation (“untrammeled by man”, “without man's influence”, and “infrequent contact with man and his influence”.)

Policy: SRMAs are an appropriate management tool to fulfill agency responsibility to ensure traditional, diverse recreation relating to cross country travel and open OHV use.

Policy: Failure to allocate at least 1% of agency land in Millard County as SRMAs (or other appropriate designations) for cross country travel and/or open OHV use is considered an abrogation of recreation planning responsibility and is inconsistent with the Millard County General Management Plan.

Policy: Millard County will consider and support/oppose SRMA management on a case by case basis for lands that contain special features of recreation interest which do not qualify for ACEC, Wild & Scenic River, or other special designation status.

Findings: Special Recreation Management Areas are at the discretion of Federal land managers and must be consistent with Millard County's General management Plan to be consistent with FLPMA.

Millard County also finds:

a) SRMAs have a specific benefit only when a specific recreation destination is present.

b) Large blocks of land for designated general purposes (scenic, recreational, cultural) fail to meet the specific standard necessary for SRMAs management and development.

c) SRMAs need to meet specific visitation requirements in order to qualify for designation.

d) SRMAs should attract enough visitors to pay for all services that are required from the County.

e) SRMAs need to provide for human waste collection and disposal, solid waste collection and disposal, access for emergency services, law enforcement, etc.

f) SRMAs are not being used to their full potential or in accordance with their purpose. SRMAs should not be used over large blocks of land to manage dispersed recreation in a primitive setting. SRMAs should be used in limited areas where concentration of visitors is anticipated and special or intense recreation management needs exist.

g) Dispersed recreation is a multiple-use activity and does not require special management

actions.

h) Primitive recreation and semi-primitive non-motorized recreation are a subset of dispersed recreation and should be emphasized in management areas set aside for those purposes in the Millard County General Management Plan and only in those areas.

i) SRMAs are not suitable where other management classifications (ACECs, Wild and Scenic Rivers, WSAs, etc.) exist.

j) It is necessary to establish guidelines regarding size and visitation for SRMAs in order to preserve and enhance the custom, culture, socioeconomic vitality and community viability of the County and to provide consistency across office/agency boundaries. The minimum acreage and visitation figures for SRMAs are as follows:

0 acres to 40 acres	no requirement maximum of eight per agency
40 acres to 320 acres	10 visitors per day for at least 90 days per year.
320 acres to 2000 acres	25 visitors per day for at least 120 days per year.
Greater than 2000 acres	1 visitor per day per 80 acres for at least 120 days and County concurrence required.

l) SRMAs require a specific development plan identifying expenditures, public services, and cost reimbursement scenarios as part of the NEPA planning process. If these planning items are postponed until the implementation or project phase, inadequate management occurs during the interim.

m) Establishment of SRMAs as part of programmatic resource management plans and implementation of the specific management actions without secured budgets, cooperative agreements for public services, facilities for the collection and disposal of solid or human waste, reliable all weather access, and other needs is inconsistent with the Millard County General Management Plan, is arbitrary and capricious, and is an abrogation of Federal responsibilities to the public.

n) Federal agencies need to identify suitable cross country/open motorized recreation areas targeting 3% to 5% and not exceeding10% of the County's total land area as SRMAs or other similar management areas.

4.4 AREAS IDENTIFIED BY LAND MANAGERS

Inasmuch as lands identified by land managers are generally discretionary, Millard finds and desires (absent specific federal law to the contrary) lands in this classification be managed in accordance with the Millard County General Management Plan

Policy: These management actions are primarily at the discretion of the land managers. Unless specifically mandated by law, management plans/actions adopted without the concurrence of the Millard County Commission are inconsistent with the County's General Management Plan and are a violation of local law.

Finding: Federal Land Managers have a great deal of discretion when it comes to developing planning actions, alternatives, management scenarios and subsequent decisions. Usually plans are developed at the field level, with final approval at State or Regional levels. Appeals to plans are usually resolved at the Headquarters level. Given the discretionary nature of most federal plans, it is the policy of Millard County that all discretionary federal land manager decisions give deference to County government needs, desires and concerns. This is interpreted to mean that where there is no Federal body of law that would prevent an action from occurring, local bodies of law, ordinances, policies, County resource management plans, local environmental needs, economic concerns, and social well-being will be the guiding direction for federal planning efforts.

4.4.1 NON-WSA LANDS WITH WILDERNESS CHARACTER

Current Setting

In 1996, under the guise of resolving differences regarding the "fundamental issue of how much BLM land has wilderness characteristics," Secretary Babbitt directed an inventory of BLM and non-BLM lands. The effort was to "apply the same legal criteria that were used in the original inventory." However, findings that trails "used by thousands of visitors annually" had outstanding opportunities for solitude; that criteria for areas did "not need to have outstanding opportunities on every acre;" that qualifying areas had only to meet the minimal standard of having "opportunities somewhere in the unit;" and that practices that considered units adjacent to WSAs as having outstanding opportunities regardless of whether the unit being considered or the WSA qualified for such consideration resulted in an inventory that created more disagreement and doubt and was less professional and objective than original inventories that identified lands "that clearly and obviously lacked wilderness character."

Areas identified in the 1996 process are compiled in UTAH *Wilderness Inventory*, 1999. When

compared to National Park, National Recreation Area, National Monument, and WSA lands recommended for wilderness designation, Non-WSA lands with wilderness character identified in the 1999 inventory fail to meet the same value and /or quality standards as original studies. In addition, higher value lands set aside for preservation and non-motorized recreation are under-utilized and occupy an inordinate percentage of Utah land when considering current and estimated future visitation.

Need for Management Change

1. Non-WSA lands with wilderness character need to manage for commodity production, development, multiple-uses, and sustained yield with the fewest prescriptions allowed by law. These lands are of low wilderness value and quality

2. Lands set aside for preservation and non-motorized recreation in Millard County are under-utilized and far exceed current and foreseeable needs for these uses. Non-WSA lands with wilderness character need to be available for natural resource based industries and multiple-use management other than preservation or non-motorized recreation.

3. In as much as federal/state land use plans are to be consistent to the maximum extent allowed by law with local government plans, and in as much as there is no law requiring management of lands with wilderness character for preservation or non-motorized uses, prescriptive management of non-WSA lands with wilderness character in Millard County needs to have the approval of the Millard County Commission.

Desired Condition

Millard County desires non-WSA lands with wilderness character:
a) Be managed in accordance with Millard County's Land Use Plan, as multiple-use lands, or as commodity production lands.

b) Be evaluated in light of the original inventory identifying them as lands that clearly and obviously lacked wilderness character.

c) Prior to management for wilderness character have a detailed analysis be conducted identifying:

1) The percentage of lands with naturalness,
2) Percentage of lands with outstanding opportunities for solitude,
3) Percentage of lands with outstanding opportunities for primitive recreation,
4) Percentage and acreages of lands classified in each of the Visual Resource Management Classifications,

5) Factors that disqualified the lands from possibly containing wilderness values in the initial wilderness inventory,
6) Changes to the lands since the initial inventory,
7) Comparative analysis between and cumulative impact analysis of wilderness characteristics in the area being studied versus such characteristics recommended by the National Park Service, Forest Service designated wilderness areas, and lands identified by the Bureau of Land Management in the Recommended or Paramount proposals of the BLM 1991 Final EIS.
8) Comparative analysis between and cumulative impact analysis of recreational opportunities offered by these lands versus recreational opportunities currently available in National Parks, National Recreation Areas, National Monuments, Wilderness Areas, and WSAs located in Millard County and the region.

d) Have a detailed inventory of all roads, paths, ways, trails, campgrounds, fence lines, range improvements, vegetation treatments, erosion control measures, noxious weeds, and any other man made impacts on lands as part of the evaluation of non-WSA lands with wilderness character prior to managing any lands for wilderness values.

e) In as much as the original wilderness inventory was conducted over a longer period of time expended greater funds, was in direct response to mandates by Congress, when conflicts occur between the original inventory and the re-inventory conducted by the BLM the late 1990s, the original inventory shall control.

f) The BLM give preference to multiple-use, sustained yield, commodity production, natural resource extraction activities unless federal law specifically prohibiting/withdrawing those lands from such activities exists.

g) Have as few restrictions placed on them as possible or allowable by law. They should be managed under the principles of multiple-use and sustained yield. Commodity production should be the guiding principle.

Policies, Goals, Objectives, and Criteria

Policy: Millard County accepts and adopts BLM determinations reached in the original wilderness inventory that these lands clearly and obviously lack wilderness character and incorporates the inventory and determinations by reference.

Policy: Millard County adopts and concurs with the determination identified on page A1, column 3, paragraph 1 of the UTAH 1996 Wilderness Re inventory that these areas do not have wilderness character on every acre.

Policy: Millard County adopts the determination identified on A1, column 3, paragraph 1 of the UTAH 1996 Wilderness Re-inventory that non-WSA lands with wilderness character located adjacent to WSAs were not evaluated.

Policy: Where inconsistencies exist between the original wilderness inventory conducted as directed by Congress in response to the Wilderness Act of 1964 and UTAH 1996 Wilderness Re inventory, Millard County adopts the original inventory and associated determinations as correct, accurate, and the best/most current data. In addition, the County rejects inconsistent findings of UTAH 1996 Wilderness Re inventory as inaccurate and based on subjective, unauthorized criteria.

Policy: No non-WSA lands will be managed for wilderness character.

Policy: It is the policy of Millard County that non-WSA lands with wilderness character be managed for commodity production or multiple-use and sustained yield. Management actions must be consistent to the maximum extent allowed by law with the Millard County General Management Plan, and failure to comply will be considered arbitrary and capricious.

Criteria: Non-WSA lands that have been subject to vegetative treatments or manipulations are not suitable for management preserving wilderness characteristics unless they meet all of the following criteria:

Age - Vegetative manipulations where the last manipulation, treatment, or impact by a man is older than 100 years may be considered substantially unnoticeable, if no stumps, scars, piles, or any other impacts are present.

Extent - Vegetative manipulation that has an extent less than 5000 square feet is considered substantially unnoticeable.

Condition - A vegetative manipulation is considered substantially unnoticeable if, after comparing three random samples not less than 200 square feet inside the manipulated area and three random samples not less than 200 square feet outside the manipulated area, the following criteria is met:

a) If percentage composition for each species inside the manipulated area is within 3% of the composition for the same species outside of the manipulated area;

b) If estimated age for 97% of the individuals in each species in the manipulated area is within two years of age for the individuals of the same species in the non-manipulated area;

c) If the species populations within the manipulated area are not less than 95% nor more than 105% of the species populations in the non-manipulated area;

d) If the species height in the manipulated area is not less than 95% nor more than 105% of the height of the species in the non-manipulated area;

e) If the manipulated area is free from exotic or non-native species that are not present in the non-manipulated area; and

f) If the boundary between the manipulated area and the non-manipulated area is indistinguishable.

Criteria: Roads, paths, ways, and trails that are man-made and are substantial enough to be identified on maps, plans, inventories, original wilderness studies, subsequent wilderness studies, public comments associated with wilderness studies, mining claims, GPS inventories conducted by Federal, State, or local governments, or that can be visually distinguished on the ground are substantially noticeable and disqualify the land for wilderness management.

Criteria: Tamarisk, Russian Olive, noxious weeds, and non-native invasive species were introduced in Millard County by modern man. They are a clear and obvious evidence of man's presence and an indication of his trammeling of the land. Non-WSA lands with wilderness character that contain Tamarisk, Russian Olive, noxious weeds, or non-native invasive species exhibit evidence of man's presence, the long term presence of man and man's trammeling of the land. Non-WSA lands with wilderness character that contain Tamarisk, Russian Olive, noxious weeds, or non-native invasive species do not qualify for wilderness or management for wilderness characteristics.

Finding: Millard County finds all non-WSA lands clearly and obviously lack wilderness character as determined in the federal detailed inventory phase directed by the Wilderness Act of 1964. The County also finds these lands have a lower percentage of natural appearance, outstanding opportunities for solitude and outstanding opportunities for primitive recreation than lands carried forward in the intense study phase of the process.

Finding: Millard County has evaluated lands identified by federal agencies as possibly containing wilderness values, lands recommended for wilderness designation, lands currently withdrawn from multiple-use / sustained yield management, visitation on lands managed for primitive recreation, demand for primitive recreation, and higher value experiences on other lands available for primitive recreation. Millard County finds that lands designated as “Non-WSA lands with wilderness character” are to be managed for commodity production or multiple-use / sustained yield activities.

Finding: Tamarisk, Russian Olive, noxious weeds, and non-native invasive species were

introduced by modern man as he developed the West. They are non-native, invasive and an evidence of man's lack of understanding regarding his influence on the land. They were introduced by man and constitute a substantial evidence of his presence. The presence of Tamarisk and/or Russian Olive constitute a substantially noticeable evidence of man's presence / impact and disqualifies lands from wilderness management unless otherwise approved by the Millard County Commission.

Finding: Millard County has evaluated non-WSA lands that were originally identified as "clearly and obviously lacking wilderness character" and that were reevaluated by the BLM as part of the later process directed by Secretary Babbitt. Management actions containing prescriptions that reduce opportunities to achieve the goals and objectives or that implement prescriptions giving preference to primitive recreation and / or wilderness values over the goals and objectives listed below are found to be inconsistent with Millard County's General Management Plan and constitute significant negative direct, indirect and cumulative impacts on the County's custom, culture and socioeconomic base. Prescriptive management actions on these lands are also found to be in deliberate conflict with the County's plans, policies and programs, and are not consistent to the maximum extent allowed by law unless accompanied with objective, scientific data justifying the prescription and approval by the County Commission. Managing part or all of the non-WSA lands in Millard County with wilderness character for wilderness characteristics violates FLPMA, contradicts the State's Public Land Policy and contradicts the plans of Millard County. Specifically Millard County finds the following:

a) As Utah Code ' 63-38d-401(6)(b) indicates, managing non-WSA lands with wilderness character under a wilderness characteristics management standard is not the State of Utah's policy for multiple-use-sustained yield management on public lands that are not wilderness or wilderness study areas; Nor is it Millard County's. A so-called wilderness characteristics management standard for the non-WSA lands with wilderness character is de facto wilderness management by another name. It is incompatible with and would therefore frustrate and defeat the foregoing plans of Millard County for managing the non-WSA lands with wilderness character. Millard County has formally taken a position that only lands classified as Rec Ia should be designated as wilderness.

b) A so-called "wilderness characteristics management standard" for the non-WSA lands with wilderness character also violates FLPMA and the 2003 Settlement Agreement between Utah and Department of Interior.

- Managing Post-603 Lands[1] pursuant to the Interim Management Policy of 1979 (IMP) is inconsistent with BLM authority. Agreement p. 6 & 13.a;

[1] As that term is defined in the *Utah v. Norton* settlement agreement of April 11, 2003.

- Managing Post-603 Lands to preserve alleged wilderness character strays from the multiple-use mandate in a manner inconsistent with FLPMA ' Section 603 limited delegation of authority. Agreement p. 9 & 17;

- The 1999 Utah Wilderness Re-inventory shall not be used to manage public lands as if they are or may become WSAs. Agreement p. 13 & 4;

Finding: Millard County finds the following goals and objectives vital to the County's custom, culture, socioeconomic vitality, and community viability:

a) Achieve and Maintain A Continuing Yield of Mineral Resources At The Highest Reasonably Sustainable Levels.

- Development of the solid, fluid and gaseous mineral resources in the non-WSA lands with wilderness character is an important part of the economy of Millard County.

- Millard County recognizes that it is technically feasible to access mineral and energy resources while preserving non-mineral and non-energy resources and uses.

- All solid, fluid and gaseous mineral resources in the non-WSA lands with wilderness character that exist in economic quantities and are recoverable with existing or foreseeable technology should be available for development.

- Physical and administrative access to mineral resources in the non-WSA lands with wilderness character must be maintained. These lands should be open to oil and gas leasing with economically and technically viable stipulations and conditions that will protect the lands against unreasonable and irreparable harm to significant resource values. This should include reasonable and effective mitigation and reclamation measures and bonding for such where necessary.

- Fluid and gaseous minerals within developed areas should be protected from waste and drainage.

- Any previous lease restrictions in the non-WSA lands with wilderness character that are no longer necessary or effective should be modified, waived or removed.

- Restrictions against surface occupancy should be modified, waived or if necessary removed where it is shown that directional drilling is not ecologically necessary, where directional drilling is not feasible from an economic or engineering standpoint, or where

it is shown that directional drilling will in effect sterilize the mineral and energy resources beneath the area.

- Applications for permission to drill that meet standard qualifications, including where appropriate reasonable and effective mitigation and reclamation requirements, should be expeditiously processed and granted.

- Any moratorium or withdrawals that may exist against the issuance of additional mining patents and oil and gas leases in the non-WSA lands with wilderness character should be carefully evaluated for removal.

b) Achieve and Maintain Livestock Grazing At The Highest Reasonably Sustainable Levels Including Range Improvements, Access, Vegetation Treatments, Prescribed Fire, etc.

- Domestic livestock forage in the non-WSA lands with wilderness character as expressed in animal unit months and allocated for permitted active use in the current RMP, should be no less than the maximum number of animal unit months sustainable by range conditions in grazing districts and allotments in the non-WSA lands with wilderness character, based on an on-the-ground and scientific analysis.

- Where once-available grazing forage in the non-WSA lands with wilderness character has succeeded to pinion, juniper and other woody vegetation and associated biomass, or where rangeland health in the non-WSA lands with wilderness character has suffered for any other reason, a vigorous program of chemical or mechanical treatments such as chaining, logging, seeding, lopping, thinning, burning, range improvements and /or other treatments should be applied to remove this woody vegetation and biomass and stimulate the return of the grazing forage to its historic levels for the mutual benefit of livestock, wildlife and other agricultural industries.

- Millard County regards the land which comprises the grazing districts and allotments in the non-WSA lands with wilderness character as more valuable for grazing than for the following uses which may exclude livestock grazing:
  a) conversion of AUMs to wildlife, wild horses, or other special species;
  b) recreation;
  c) primitive recreation/wilderness values.

  Accordingly, it is Millard County's finding that animal unit months in the non-WSA lands with wilderness character not be relinquished or retired in favor of conservation, wildlife and/or other uses.

- Millard County recognizes that from time to time a bona fidelivestock permitee in the

non-WSA lands with wilderness character, acting in good faith and not to circumvent the intent of the BLM's grazing regulations, may temporarily cease grazing operations without losing his or her permitted AUMs. However, BLM imposed suspensions of use or other reductions in domestic livestock animal unit months in the non-WSA lands with wilderness character should be temporary and scientifically based on rangeland conditions.

- The transfer of grazing animal unit months (AUMs) to wildlife, wild horses or watersheds for supposed reasons of rangeland health or any other purpose is opposed by Millard County as illogical. There is already imputed in each AUM a reasonable amount of forage for the wildlife component.

- Any grazing animal unit months that may have been reduced in the non-WSA lands with wilderness character due to rangeland health concerns should be restored to livestock when rangeland conditions improve, and not converted to wildlife use. New AUMs resulting from increased range production should be divided appropriately between grazing and other uses with at least 50% of any AUM increase allocated to grazing unless otherwise approved by Millard County.

c) Manage the Watershed to Achieve and Maintain Water Resources At The Highest Reasonably Sustainable Levels

- All water resources derived in the non-WSA lands with wilderness character are the property of the State of Utah. They are owned exclusively by the State in trust for its citizens.

- As a political subdivision of the State, Millard County has a legitimate interest in seeing that all reasonable steps are taken to preserve, maintain, enhance and where reasonable develop those water resources.

- With increased demands on water resources brought on by population increases in the Colorado River drainage area, and with recent drier precipitation trends which call into question in the minds of some whether the climate of the Colorado River drainage area is changing, it is important now more than ever that management practices be employed in the non-WSA lands with wilderness character to restore, maintain and maximize water resources there.

- This includes ground disturbing restoration, maintenance and enhancement of the watershed in the non-WSA lands with wilderness character.

- Where water resources in the non-WSA lands with wilderness character have diminished because

desirable vegetation have succeeded to pinion, juniper, Tamarisk, Russian olive, and other woody vegetation and associated biomass, a vigorous program of chemical or mechanical treatments should be applied to promptly remove this woody vegetation and biomass, stimulate the return of the grasses to historic levels, and thereby provide a watershed that maximizes water yield and water quality for livestock, wildlife, and human uses.

- Part of Millard County's strategy for enhancing watersheds includes deterring unauthorized cross-country travel. One of the best ways to deter unauthorized travel is to provide an adequate system of routes in designated open areas for OHV use, including non-WSA lands with wilderness character. Millard County finds the existing County transportation network (including some un-inventoried routes that are known to currently exist) is the minimum necessary to provide for OHV travel and that 3% to 5% of the land in Millard County needs to be designated for open OHV use to deter unauthorized travel. Failure to provide appropriate open areas comprising 3% to 5% of the County constitutes failure to protect watersheds from unauthorized use, disregard for non-WSA lands with wilderness character and encourages unauthorized cross-country travel.

d) Achieve and Maintain Traditional Motorized and Non-Motorized Access to Outdoor Recreational Opportunities

- Historically, citizens of Millard County and visitors have enjoyed many forms of outdoor recreation in the non-WSA lands with wilderness character, such as hunting, fishing, hiking, family and group parties, family and group campouts and campfires, rock hounding, OHV travel, geological exploring, pioneering, parking their RV, or just plain touring in their personal vehicles. Such activities make up an important component of the custom, culture, and socioeconomic base of the County.

- All roads, paths, ways, and trails in the non-WSA lands with wilderness character, which historically have been open to OHV use, should remain open.

- Historically, outdoor recreational opportunities in the non-WSA lands with wilderness character have been open and accessible to working class families, to families with small children, to the ill and persons with disabilities, to the middle aged and elderly, to persons of different cultures for whom a primitive or back country experience may not be the preferred form of recreating. Current use, demographics and area growth support a need for more dispersed and varied recreation opportunities in the non-WSA lands with wilderness character, as opposed to primitive or back country experiences. All of society should not be forced to participate in a solitude experience or a primitive experience as the one and only mode of outdoor recreation in the non-WSA lands with wilderness character.

- Any segment of society who wants to recreate in the non-WSA lands with wilderness character are entitled to existing, authorized motorized access to traditional recreation uses and additional access where needed.

- Millard County finds continued public motorized access to all traditional outdoor recreational destinations in all areas of the non-WSA lands with wilderness character for all such segments of the public is vital to the custom, culture, and economic viability of the County. Millard County specifically opposes restricting outdoor recreation in the non-WSA lands with wilderness character to non-motorized uses.

- Accordingly, all roads, paths, ways, and trails in the non-WSA lands with wilderness character that currently exist are part of Millard County's duly adopted transportation plan should remain open to motorized travel. None of them should be closed, and Millard County should have the continued ability to maintain and repair those routes, and where reasonably necessary make improvements thereon. All trails in the non-WSA lands with wilderness character that have been open to OHV use should continue to remain open. Traditional levels of wildlife hunting and fishing should continue. In addition, all roads administered by the BLM should remain open to public use, and any attempt to close those roads should be subject to the NEPA process.

e) Maintain and keep open all roads, paths, or ways on public lands that appear on Millard County's most recent transportation map, federal, state or local maps, original wilderness inventory data sheets, GLO plats, the land as of January 1, 2016 and provide for such additional roads, paths, ways, trails and other highways, rights-of-way and easements as may be necessary from time to time.

- Millard County's Transportation Plan includes an Official County-Wide Transportation Map, available to the public for viewing and copying, showing public roads and trails maintained by the County.

- That portion of Millard County's official transportation map which shows public roads and trails in the non-WSA lands with wilderness character is considered to be part of Millard County's plan specifically applicable to the non-WSA lands with wilderness character. In addition, all roads administered by the BLM should remain open to public use, and any attempt to close those roads should be subject to the NEPA process and should provide an opportunity for the County to assume administration of the route if the County desires.

- Millard County plans to keep all such roads in the non-WSA lands with wilderness character open and reasonably maintained and in good repair. Millard County will

consult with the BLM about any required improvements to such roads, reserving the right to request court intervention and relief in the event Millard County and BLM cannot reach an agreement on such proposed improvements after reasonable efforts at consultation.

- Additional roads, paths, ways, trails and other transportation corridors exist and/or may be needed in the non-WSA lands with wilderness character from time to time to facilitate reasonable access to a broad range of resources and opportunities, including livestock operations and improvements, solid, fluid and gaseous mineral operations, energy transportation, recreational opportunities and operations, search and rescue needs, other public safety needs, access to public lands for people with disabilities and the elderly, and access to Utah school and Institutional Trust Lands. Additional access should be provided where a need is demonstrated and can be accomplished while providing required protection to other resources and uses.

f) Manage Cultural Resources in Conformance With Millard County's Cultural Resource Protection Ordinance, Federal Law and State Law.

- Reasonable mineral development in the non-WSA lands with wilderness character can occur while protecting prehistoric rock art, three dimensional structures and other artifacts and sites recognized as culturally important and significant by the state historic preservation officer and Millard County. Federal, State, and Local laws and regulations adequately protect these resources.

- Reasonable and effective stipulations and conditions to protect against damage to the above-described cultural resources should accompany decisions to issue mineral leases, permit drilling or permit seismic activities in the non-WSA lands with wilderness character. Such drilling and seismic activities should not be disallowed merely because they are in the immediate vicinity of the above-described cultural resources if it is shown that such activities will not damage those resources. The primary method of protecting these important resources should be avoidance of the specific sites of their location, not avoidance of blanketed areas spread far and wide around those specific sites.

g) Manage Lands So As to Not Directly or Indirectly Interfere With The Property Rights of Private Landowners Located in Non-WSA Lands with Wilderness Character.

- There may be parcels of private fee land located in the non-WSA lands with wilderness character.

- Land management policies and standards on non-WSA lands with wilderness character should not interfere with the property rights of private landowners in the region to enjoy

and engage in traditional uses and activities on their private property, consistent with controlling County zoning and land use laws.

- Nor should those landowners and their guests be denied the right of motorized access to their private property consistent with necessary and/or permitted uses of those private land parcels.

h) Manage lands so as to not directly or indirectly interfere with the fiduciary responsibility of the State School and Institutional Trust Lands Administration (SITLA) with respect to trust lands located near those lands.

- Scattered throughout the non-WSA lands with wilderness character are sections of school and institutional trust land owned by the State of Utah and administered by SITLA in trust for the benefit of public schools and other institutions (school trust lands), as mandated in Utah's Enabling Act and State Constitution.

- As trustee, SITLA has a fiduciary responsibility to manage those school trust lands to generate maximum revenue therefrom, by making them available for sale and private development, and for other multiple-use consumptive activities such as mineral development, grazing, recreation, timber, agriculture and the like, all for the financial benefit of Utah's public schools and other institutional beneficiaries.

- Land management policies and standards on non-WSA lands with wilderness character should not interfere with SITLA's ability to carry out its fiduciary responsibilities.

- Nor should SITLA be denied the right of motorized access to those school trust sections to enable SITLA to put those sections to use in order to carry out SITLA's fiduciary responsibilities.

- Millard County holds numerous rights-of-way and easements across SITLA lands. Reasonable access needs to be provided across non-WSA lands with wilderness character to allow Millard County to maintain, improve and enjoy of those rights-of-way and easements.

i) Support implementation of Areas Of Critical Environmental Concern (ACEC) designation only in conformance with criteria established in Millard County's General Management Plan and consistent with the County's goals for managing non-WSA lands with wilderness character.

- It is Millard County's policy that no part of the non-WSA lands with wilderness character should be designated an ACEC unless the following is clearly demonstrated:

  a) The proposed ACEC satisfies all the definitional requirements of the Federal Land

Policy and Management Act of 1976, 43 U.S.C. ' 1702(a) and Millard County's criteria for Relevant – Important resources.

b) The proposed ACEC is limited in geographic size and that the proposed management prescriptions are limited in scope to the minimum necessary to specifically protect and prevent irreparable damage to values that are objectively shown to be relevant and important or to protect human life or safety from natural hazards.

c) The proposed ACEC is limited only to areas that are already developed or used or to areas where no development is required.

d) The proposed ACEC designation and protection is necessary to protect not just a change in ground conditions or visual resources that can be reclaimed or reversed eventually (e.g. reclaiming a natural gas well site after pumping operations are complete). Rather, the damage must be shown in all respects to be truly irreparable and justified on short term and long term horizons.

e) The proposed ACEC designation and protection will not be applied redundantly over existing protections available under FLPMA multiple-use sustained yield management, the Wilderness Act, threatened or endangered species designations or any other special designation or law.

f) The proposed ACEC designation is not a substitute for a wilderness suitability determination, nor is it offered as a means to manage a non-WSA lands for wilderness characteristics.

- The foregoing summarizes the ACEC criteria of the State of Utah and Millard County. See Utah Code ' 63-38d-401(8)(c). The foregoing summarizes the criteria of FLPMA.

- Millard County Finds the alternatives being considered for the above-listed ACECs constitute de facto wilderness management in the non-WSA lands with wilderness character or fail to be consistent with Millard County's ACEC criteria. Adopting any of the ACECs without County Concurrence is incompatible with, frustrates and defeats the Management Plan of Millard County for non-WSA lands with wilderness character.

j) Support inclusion of river segments as part of the national Wild and Scenic Rivers system only in conformance with criteria established in Millard County’s general management plan and consistent with the county’s goals for managing non-WSA lands with wilderness character.

- It is Millard County’s policy that no river segment should be included in the National

Wild and Scenic River System (NWSRS) unless:

a) Water is present and flowing at all times.

b) The water-related value is considered outstandingly remarkable within a region of comparison consisting of the State of Utah, the Colorado Plateau, Anasazi Dwelling units, and that the rationale and justification for the conclusion are disclosed.

c) BLM fully disclaims in writing any interest in water rights with respect to the subject segment.

d) It is clearly demonstrated that including segment in the NWSR system will not prevent, reduce, impair, or otherwise interfere with the state and its citizen's enjoyment and development of complete and exclusive water rights in and to rivers of the state as determined by the laws of the state, nor interfere with or impair local, state, regional, or interstate water compacts to which the State or Millard County is a party.

e) The rationale and justification for the proposed addition, including a comparison with protections offered by other management tools, is clearly analyzed within the multiple-use mandate, and the results disclosed.

f) It is clearly demonstrated that BLM does not intend to use such a designation to impose Class I or II Visual Resource Management prescriptions.

g) It is clearly demonstrated that the proposed addition will not adversely impact the local economy agricultural and industrial operations, outdoor recreation, water rights, water quality, water resource planning, and access to and across river corridors in both upstream and downstream directions from the proposed river segment.

- The foregoing also summarizes the Wild and Scenic River criteria of the State of Utah, Utah Code ' 63-38d-401(8) (a), as well as the criteria of Millard County.

k) Maintain the least restrictive Visual Resource Management Classification allowed by law, consistent with Millard County's VRM Acceptability Table. Oppose a Visual Resource Management Class I or II rating for lands not approved by the County Commission.

- The objectives of BLM Class I Visual Resource Management are not compatible with, and would therefore frustrate and interfere with, Millard County's General Management Plan regarding non-WSA lands with wilderness character.

- The objectives of BLM Class II Visual Resource Management are generally not compatible with, and would therefore frustrate and interfere with, Millard County's General Management Plan regarding non-WSA lands with wilderness character. There are certain limited exceptions where a Class II objective may be compatible with Millard County's General Management Plan.

- VRM Class II adversely affects existing rights such as mineral leases, livestock grazing and the ability to develop private lands. VRM inventories must be modified to permit full enjoyment and development of underlying land use authorizations and use potential. IBLA has held that VRM classes cannot be enforced if it conflicts with underlying land use or existing oil and gas leases.

- Millard County's General Management Plan regarding non-WSA lands with wilderness character is consistent with either Class III or Class IV, depending on the precise area.

4.4.2 VISUAL RESOURCE / SCENERY MANAGEMENT

Current Setting

Each federal agency has its own system for classifying visual resources and for scenery management. BLM uses a Visual Resource Management system (VRM); Park Services has moved to a Visitor Experience and Resource Protection framework (VERP); and Forest Service has recently adopted a Scenery Classification System (SCS) that categorizes areas from 1 to 7 based on sensitivity. The most restrictive category for each agency - and often the second most restrictive - results in what is equivalent to a Special Designation. Although there may be some common traits, no two agencies are completely consistent with the County's planning efforts or expressed desires. Often, Visual Classification Areas are more restrictive than needed outside National Parks and Designated Wilderness.

Visual resources management is simply a tool to aid the federal land management agencies in quantifying lands in terms of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit that influence the visual appeal of the areas and its visitors. It is not, in and of itself, a management decision and is used as a discretionary tool by land managers to aid in the decision making process. The County has considered visual resources within the scope of the County Resource Management Plan.

Need for Management Change

1. There has been increasing effort to use visual resource and scenery management prescriptions as a tool to remove lands from multiple-use and sustained yield management. Visual resource and scenery classifications, which restrict use of the land, need to be limited to only those actions required by law and those actions Coordinated and mutually agreed upon by federal, state, and local entities.

2. The least restrictive visual resource and scenery management classification allowed by law needs to be applied to lands in Millard County.

3. Millard County needs to develop a scenery management component of the General Management Plan to provide consistency across agency boundaries.

4. Millard County needs to be provided an opportunity to participate as a cooperating agency and to coordinate on a government to government basis in planning actions considering visual resource and scenery management.

5. State and private lands in Millard County are not subject to federal planning and must be managed in accordance with state and local plans.

Desired Condition

Millard County desires:
a) Visual resources and scenery management be conducted in a manner that preserves the natural scenic beauty of Millard County without prohibiting resource use, development or extraction, and in accordance with Millard County's Resource Management Plan.

b) The strictest visual resource management practices be limited to National Parks and other areas approved by the County Commission.

c) Federal lands have the minimum restrictions allowed by law regarding visual interpretive opportunities, use and enjoyment on designated lands.

d) Forest Service and BLM lands be classified with the least restrictive Visual Resource Management Classifications and comply with the Millard County Resource Management Plan.

e) VRM Class I or equivalent and Class II or equivalent only be applied specifically to enhance, interpretive opportunities where consistent with the custom and culture of the area and in designated Rec Ia or Rec Ib areas.

f) Federal agencies adopt Millard County's Visual Resource Management Classification System for all federal lands in order to provide consistency across agency boundaries and to preserve the County's socioeconomic vitality, custom, and culture.

g) Federal planning documents include a full range of scenery management alternatives and analysis evaluating direct, indirect, and cumulative impacts on socioeconomic vitality, community viability, custom, and culture.

h) All State and private lands in Millard County be designated VRM Class IV or equivalent unless otherwise approved by the Millard Commission.

Policies, Goals, Objectives, and Criteria

Policy: Visual Resource Management is subjective, and discretionary management that is not consistent with the County's General Management Plan fails to meet the standards required by FLPMA 202(c).

Policy: It is the policy of Millard County that any specific action to manage or change visual management or scenery classifications comply with the Millard County General Management and Resource Management Plans or be approved by the Millard County Commission.

Action/Implementation: Before any proposed action is approved, the Millard County Commission will have a review by its Public Lands Steering Committee, public hearings and/or interagency discussion to identify issues and concerns. The Millard County Commission will accept, reject or modify the proposal, or modify the General Management Plan as appropriate. Deviations from this process will be considered a violation of policy.

Policy: The County General Management Plan will serve as the governing body of local law concerning the management of visual resources. Before any discretionary action can be taken or approved by federal land managers, it must be Coordinated with Millard County and shown that a) the action has been subjected to direct, indirect, and total cumulative impact analysis, b) the action has the support of the local Board of County Commissioners, and c) the action is consistent with the County Resource Management Plan.

Policy: Establishment of visual resource/scenery management classifications which place restrictions on public lands without considering cumulative impacts associated with Congressional designations and preservation areas (National Parks, National Monuments, National Recreation Areas, and Designated Wilderness) in the region of comparison is inconsistent with Millard County's General Management Plan.

Policy: Millard County supports the least restrictive Visual Resource Classification allowed by law unless otherwise Coordinated and approved in the County General Management Plan or by the County Commission.

Policy: Millard County deems Visual Resource Management scenarios that are more restrictive than the least restrictive classification allowed by law in conflict and inconsistent with the County General Management and Resource Management Plans unless authorized by the County Commission.

Findings: Visual Resource Management is a discretionary tool that is used by federal agencies to inventory and/or classify their lands to aid in making management decisions. VRM classification is not, in and of itself a decision, but an aide or body of information that land managers can use to guide their decision. Given the discretionary nature of this management tool, it is the finding of Millard County that County issues, needs, and concerns be given deference when it comes to future decisions made through federal planning and accompanying environmental documentation. All decisions relating to future actions regarding visual resources in the County shall be subject to local bodies of law, ordinances, policies, resource management plans and any other pertinent information. Failure to do so will be considered inconsistent with the County's General Plan and a violation of local law.

Millard County includes parts of the Colorado Plateau and Colorado Plateau/Basin and Range. A

broad variety of visual settings are the result of the transition of physiographic provinces. Various visual features are scattered throughout the region including sand dunes, vast desert plateaus, and mountain overlooks. Several State Scenic Byways and Backways cross the County, providing views of the vistas, cliffs, and rural settings. Neighboring counties contain designated wilderness areas. The proximity of undeveloped landscapes, national parks, national monuments, a national recreational area (NRA), and several state parks also contributes to the importance of visual resource management analysis of cumulative and comparative effects.

The County's Visual Resource Management inventory identifies the existing scenic values in the area. The inventory includes an evaluation of scenic quality, analysis of sensitivity, and delineation of distance areas. Based on these three factors lands are placed into one of four VRM inventory classes. The inventory classes represent the relative value of the visual resources. Class I resources are the most sensitive, and Class II resources are somewhat sensitive, Class III resources are moderately sensitive, and Class IV resources are the least sensitive. Millard County's visual resource management classified lands as follows:

Class I	XX,XXX Acres
Class II	XX,XXX Acres
Class III	XX,XXX Acres
Class IV	XX,XXX Acres

Millard County's visual resource management classifications were developed considering technical, scenic, social, economic, and historic considerations. All lands within the County were considered, and the classification is consistent across agency boundaries. Agencies, which adopt more restrictive classifications, are inconsistent with the General Management Plan and often are inconsistent with their own previous planning documents. Millard County will consider revised visual resource management scenarios if: a) the alternative is based on objective data, b) all lands in the County are considered, c) detailed cumulative analysis across the entire county and region of comparison is developed, and d) the alternative is consistent with the agency's historic visual resource classifications and with the goals and objectives of the Millard County General Management Plan. Any deviation will be subject to prior approval of the Millard County Board of Commissioners.

Policy: All state and private lands in Millard County are designated as VRM Class IV or equivalent until otherwise modified by the Millard County Commission.

4.4.3 NO SURFACE DISTURBANCE

Current Setting

"No Surface Disturbance" is a management action reserved for situations where any surface disturbing activities would be detrimental to higher valued resources. Generally, these situations result from legislative action or withdrawing/removing lands from multiple-use - sustained yield activities. The extent of no surface disturbance lands in Millard County is unknown at this time.

Need for Management Change

1. There has been increasing unjustified effort to identify lands for no surface disturbance. Technology currently exists to reclaim and enhance many specific resources after surface disturbing activities have taken place. No surface disturbance classifications need to be limited to only those actions required by law and those actions Coordinated and mutually agreed upon by federal, state, and local entities.

2. The least restrictive surface disturbing management classification allowed by law needs to be applied to lands in Millard County.

3. Millard County needs to develop a component for surface disturbing activities as part of the General Management Plan to provide consistency across agency boundaries.

4. Millard County needs to be provided an opportunity to participate as a cooperating agency in planning actions considering surface disturbing activities, and all such actions need to be Coordinated with the County.

Desired Condition

Millard County desires that Non-surface Disturbance restrictions:

a) Be limited to only those lands where special protection is necessary that have been Coordinated with and approved by the Millard County Commission.

b) Be replaced with opportunities for interpretation, use, and enjoyment consistent with the designation.

c) Be designated only after detailed, direct, indirect, and cumulative analysis considering all other special designations within the County and region.

d) Be used as a last resort when other management options are not available.

Policies, Goals, Objectives, and Criteria

Finding: There has been increasing effort to identify lands for no surface disturbance. Technology currently exists to reclaim and enhance specific resources after surface disturbing activities have taken place. No surface disturbance classifications need to be limited to only those actions required by law and those actions mutually agreed upon by federal, state, and local entities.

Policy: The least restrictive surface disturbing management classification allowed by law needs to be applied to lands in Millard County.

Goal: Millard County needs to be provided an opportunity to Coordinate and to participate as a cooperating agency in planning actions considering surface disturbing activities.

Policy: Millard County has developed this component for surface disturbing activities as part of the General Management Plan to provide consistency across agency boundaries. Before any action is taken that will place an area into a no surface occupancy classification the criteria listed below shall be followed:

1. A demonstrated need, threat to human health, safety, or welfare of the human environment, or a critical environmental issue that can be managed by no other designation must exist.
2. A demonstrated need must be brought before the Millard County Board of Commissioners for discussion.
3. Prior to a final agency action the proposal must be brought to the attention of the Public Lands Steering Committee, local community governments; and public hearings must be held so that all aspects, issues and concerns of local citizenry can be discussed.
4. Best management practices must be developed and an environmental document be completed addressing the total cumulative impacts to the biological environment, social and cultural impacts, ethnographic impacts, and what the economic impacts will be to the local area.
5. When the process is complete, the Board of Commissioners will accept, reject, or suggest modifications of proposals and make a final decision on which action will be in the best interest of the County.
6. That decision will be considered as final local law in Millard County.

Criteria: Non-Surface Disturbance Lands shall:

a) Be limited to only those lands where special protection is necessary that have been Coordinated and approved by the Millard County Commission.

b) Be replaced with opportunities for interpretation, use, and enjoyment consistent with the designation.

c) Be designated only after detailed, direct, in direct, and cumulative analysis considering all other special designations within the County and region of comparison.

d) Be used only as a last resort when other management options are not available.

Findings: Absent body of law directing implementation of no surface disturbance management, this tool is discretionary. Given the discretionary nature of this management tool, it is Millard County's finding that issues, needs, and policies identified by the General Management Plan must be given deference. Management actions that do not comply with Millard County's General Management Plan are deemed to not be consistent to the maximum extent allowed by law and are a violation of FLPMA. Any deviation from the general management plan must be approved by the Millard County Commission

4.4.4 SPECIAL PROTECTIVE ORDERS

Current Setting

Special protective areas are designated when land managers are required to take management action to protect resources / values under unusual or emergency conditions. No lands under special protective orders are identified in Millard County as of January 2016.

Need for Management Change

1. Special protective orders need to be based on current science, accurate inventories, and multiple-use principles.

2. Special protective orders need to be consistent, to the maximum extent allowed by law, with goals, desires and actions identified in the Millard County General Management Plan.

3. Millard County needs to be provided the opportunity to Coordinate and to participate as a cooperating agency in the development and implementation of special protective orders to the maximum extent allowed by law.

4. Special protective orders need to be removed as soon as the activity requiring the order is resolved.

Desired Condition

Millard County desires Special Protection Orders:
a) Be instituted only in emergency situations with the concurrence Millard County Commission.

b) Be based on objective scientific data indicating the protective order will solve the emergency situation.

c) Be temporary in nature.

d) Be removed as soon as the emergency situation is resolved or when other management options are developed to resolve the specific problem.

Policies, Goals, Objectives, and Criteria

Policy: Special Protective Orders will be considered only as a management tool utilized as a last resort.

Policy: It is the policy of Millard County that Special Protective Orders be utilized only in areas where there are remarkable values, a demonstrated need for the protection, safety, health, or welfare of human needs, emergency conditions and with the concurrence of the Millard County Commission.

Criteria: Special Protective Orders shall:
a) Be instituted only in emergency situations with the concurrence Millard County Commission.

b) Be based on objective scientific data indicating the protective order will solve the emergency situation.

c) Be temporary in nature.

d) Be removed as soon as the emergency situation is resolved or when other management options are developed to resolve problems

Finding: Millard County finds that due to their emergency nature, special protective orders are often subjective and speculative. Millard County and Federal agencies have a common and equal interest in the protection of the land and its resources. Millard County finds that special protective orders must be developed and implemented based on the most objective, scientific and accurate data, closely coordinated between Federal, State and local officials and consistent to the maximum extent allowed by law with the Millard County General Management Plan.

4.5 MULTI AGENCY CONCERNS

This section considers issues that affect multiple agencies and/or are general in nature. Failure to comply with any policy/action identified herein is inconsistent with Millard County's General Management Plan and, to the extent authorized, a violation of local law.

Desired Condition

Millard County desires:
a) Federal and State agencies assume responsibility for impacts to County services created by their agencies, lands, and visitors.

b) There be consistency across agency boundaries and that interagency jurisdictional disputes be eliminated. Millard County desires cumulative impacts consider, at a minimum, all lands within Millard County regardless of Agency jurisdiction. In many cases cumulative impacts should also be evaluated considering the region of comparison.

c) Improved and recognized access to public lands including roads, OHV routes, hiking trails, footpaths, self- guided tours, campgrounds, lodges, etc.

d) Disputes over access routes be resolved.

e) To maintain the traditional multiple-use/sustained yield concepts for public lands within the County and to enhance community viability and socioeconomic vitality while preserving the custom, culture, and resources of the area.

f) All road issues be resolved in terms of ownership, widths, standards; and those roads deemed not to be RS2477 rights, should be given Title V right-of-way or other appropriate status.

g) All lands not designated for some specific purpose within Millard County should be managed under the principles of commodity production and multiple-use/sustained yield. Priority should be given to commodity production such as, grazing, oil and gas development, habitat manipulation, timber harvesting, developed or semi-developed recreation, mining, and all other opportunities needed to sustain a healthy economy in Millard County.

h) Solid waste and human waste issues resulting from recreation and other uses on public land be adequately addressed and resolved to the satisfaction of Millard County. This includes development of facilities to handle such waste as well as reimbursing the County for expenses associated with disposal activities.

Policies, Goals, Objectives, and Criteria

Policy: The Millard County Commission is a duly elected body and represents a legal subdivision of State Government. The County must be a full partner in all laws, ordinances, policies, planning, and needful decisions relating to management of public lands in Millard County.

Policy: With the increasing influx of visitors to public lands, providing public services has become increasingly burdensome. Federal and State agencies must accept their share of the responsibility in providing or financing critical services. Managers and visitors are jointly responsible for impacts to public services.

Goal: Maintain and enhance the existing custom, culture and heritage. Residents of Millard County enjoy a rural lifestyle characterized by pastoral landscapes, open space, and small town qualities. The total population of the County is approximately 11,000 in 2015. Use and development of the public lands have been intertwined with the County's custom, culture, heritage, and socioeconomic base. Access to public lands, freedom to experience natural resources in the least restrictive manner practical and stewardship of the land are vital to the use and enjoyment of current and future generations in Millard County.

Goal: Maintain and enhance the environment, cultural diversity, clean air, and clean water. Millard County supports reasonable growth, natural resource enjoyment, use, and development. A healthy environment is a critical component of the custom, culture, and local values

Goal: Maintain and enhance the quantity and quality of public services and facilities. As prescriptive management of public lands has increased negative impacts to County Services have also increased, and benefits have decreased. Public land managers must take responsibility for public services required by their visitors, even if at lower rates than high volume generators.

Goal: Maintain a usable public land base essential to the health and welfare of Millard County. Private lands within the County are sparse and disconnected. Maintaining the County’s health, welfare, custom, and culture requires the wise use of public land resources.

Policy: Millard County will classify public lands in the County consistent with federal procedures for Visual Resource/Scenery management, Recreation Opportunity Spectrum analysis, wise stewardship and responsible protection of the health and welfare of the land.

Policy: Millard County will support management of public lands in accordance with Millard County's General Management Plan and Land Use Policy.

Objective: Millard County will actively Coordinate with federal agencies and will participate in state and federal planning processes and will be a Joint Lead or Cooperating Agency in appropriate NEPA processes.

Policy: Millard County will have an active Public Lands Program.

Policy: Multiple-use - Lands administered by the Federal Government, unless specifically withdrawn through Congressional mandate for specific purposes, must be managed under the principles of "multiple-use and sustained yield." Federal land managers are inconsistent with the definition of "multiple-use". Multiple-use means, but is not necessarily limited to those items historically and traditionally practiced, both consumptive and non-consumptive, which include grazing, mining, recreation, oil and gas exploration, timber production (to include wood products like fence posts and firewood), wildlife, vegetative management, and water use and development. Millard County asserts these uses are generally compatible and true "multiple-use" management allows the land and its resources to be used for multiples uses simultaneously or in concert with each other. More than one use can occur at the same time, and many activities are mutually beneficial.

Policy: Wilderness values should not be applied as suitability criteria in determining grazing capacities. Rangeland health standards shall be used for grazing allocations.

Policy: County custom, culture, and economic stability depend on agriculture, livestock production, mining, tourism, recreation, the timber industry, the continued use and availability of public lands, and accompanying resources. Federal and state management plans must identify and address in detail the impacts of their proposed management decisions and practices have on traditional resource uses, custom, and culture.

Policy: Sufficient land within the region and the region of comparison has been designated for primitive recreation and preservation purposes (Parks, Monuments, Recreation Areas, and Wilderness). The County opposes additional lands administered under single use management schemes unless specifically approved by the County Commission.

Policy: Millard County actively supports public land practices that a) provide for traditional multiple-uses, b) support the custom and culture of the County, and c) enhance commodity production consistent with man's role as steward of the land.

Policy: Public Access - Millard County supports motorized and non-motorized access to public lands. Access to public land has a direct impact on the County's economic stability, custom, and culture. Open access maintains stability in the County. Millard County will participate in all relevant federal and state access decisions, including RS 2477 determinations, Title V issues,

closure discussions, roadless area designations, and transportation decisions.

Policy: Millard County has developed a Transportation System that identifies the minimum infrastructure necessary to maintain the custom, culture, and socioeconomic needs of the County. County concurrence must be sought prior to access reduction to prevent negative impacts to the sustainability of local communities.

Policy: Given the importance of public land access, Millard County asserts roads, paths, ways, and trails constitute valid existing rights if created prior to the passage of FLPMA and/or enabling authority. Millard County also designates all existing roads, paths, ways, and trails as cultural resources protected by federal, state and local laws.

Policy: Millard County declares federal actions regarding RS 2477 are unjust, illegal, and have placed an unfair burden on Millard County to protect its rights-of-ways. Millard County will aggressively protect its right to public access. Agencies who adopt management alternatives that impact the transportation network prior to final determination of jurisdiction, fail to recognize valid existing rights. Restrictions on existing roads, paths, ways, and trails prior to final determinations of jurisdiction is speculative, arbitrary, capricious, and is inconsistent with the Millard County General Management Plan.

Objective: Millard County will actively maintain and preserve public land access throughout the County.

Policy: Public Land Recreation and Tourism - Millard County and the surrounding areas contain some of the most scenic landscapes in the world. A great diversity of geological and vegetal landscapes exists in Millard County ranging from desert environments to Alpine and Sub-alpine landscapes. The close proximity of both desert and Forest landscapes provides contrast not found in many areas. Visitors to public lands have a direct bearing on the economic well-being of Millard County and its communities. Visitors also impact County services including search & rescue, emergency medical, solid waste collection and disposal, law enforcement, and fire response. The County supports increased recreational activity on public lands. However, federal and state agencies must acknowledge, and more aggressively address the impacts associated with their visitors.

Policy: Federal and state land managers are jointly responsible with their visitors to compensate the County for public services. Millard County concurs with visitor use surveys indicating a vast majority of visitors (80+ %) are involved in some type of motorized recreation and only about 2% of the visitors are primarily interested in primitive recreation. (See National Forest Visitor Use Surveys) The County adopts the BLM's Final Wilderness EIS finding that primitive recreationists only spend approximately $4.10 per day.

Policy: Environmental Review and Public Land Use and Development - Millard County enjoys an abundance of natural resources and landscapes. Sensible stewardship and responsible development will enhance and preserve the quality of life, which County residents and visitors have come to enjoy while strengthening the custom, culture, and socioeconomic structure.

Policy: Responsible environmental review and planning for public lands can be a productive management tool. Responsible stewardship requires that the social and economic environment of local communities most impacted by public land use decisions be included in environmental reviews. Impacts and mitigation measures shall be considered a vital part of responsible land use decisions.

Policy: The County supports a responsible environmental review and decision-making process that incorporates cumulative impacts of similar actions across all agency boundaries in the County/region of comparison including evaluation of impacts to custom and culture, consistency comparisons between proposed actions and the County Plan, and a detailed socio-economic review. If such reviews areas not part of the process, the proposal is inconsistent with local law, fails to comply with NEPA and will not be supported by the County.

Policy: Private and Public Land Ratios - Public land acreage currently owned and managed by federal and state agencies is more than sufficient for the public interest. Almost three fourths of the County is owned, controlled or in some way managed by federal entities. Sufficient acreage already exists in the National Park System, National Monument System and other areas of special designation in Utah. The County has a "no net loss of private land" and "no expansion of Special Designations position relative to Federal-State property exchanges and transfers without the approval of the County Commission. The determination of "no net loss" should consider both acreage and values. The County supports a "net gain of private lands" regarding acreage and value.

The County directs Federal and State agencies involved in private-to-public ownership transactions to identify and make available for private ownership, an equivalent or greater amount and value of public land as a condition of the transaction. These lands, and the accompanying surface and subsurface resources, should be transferred to private ownership without use restrictions or clouded title.

The County also encourages state and federal agencies to privatize lands suitable for agriculture, roads, material pits, and other required activities. The County will expand efforts to acquire public lands through the Recreation and Public Purposes Act (R&PP) and other programs.

Policy: Recent surveys conducted by the units of the National Forests in Utah regarding visitor

activities indicate a majority of visitors are involved in motorized recreation and viewing activities. It is recognized by the County that without roads, paths, and ways the public is greatly limited to the land they can see, appreciate, use, and enjoy. It is therefore the policy of Millard County to place maintenance and improvement of transportation facilities as a higher priority than protecting visual resources adjacent to those facilities. Where existing transportation facilities are present (roads, paths, ways, trails, airstrips, trailheads, parking areas, airports etc.), the area is considered to have enhanced visual characteristics, because the public has an opportunity to view it. Best management practices, which support appropriate visual resource objectives, will be applied on transportation maintenance and improvement projects.